Report on the **2023 Quinquennial Survey**

conducted for the



Casualty Actuarial Society

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April 2024

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Background and Methodology

BACKGROUND AND METHODOLOGY

The Casualty Actuarial Society (CAS) conducted the 2023 Quinquennial survey between October 2nd – November 17th, 2023, to assess the needs of members, as well as to measure satisfaction levels with its benefits and services.

Invitations to participate in the research, with individualized links to a web-based survey, were emailed to 10,322 CAS members. In order to reduce the survey length for any one respondent, two surveys were administered; some questions were presented to all respondents, while other questions were only posed to either half. The sample (10,322) was divided in two.

Of the 10,322 contacts in the database, there was a total of 128 records bounced, and 36 members requested removal, resulting in a total outgo of 10,158. There were 3,381 partial or complete responses used (2,550 complete, 831 partial), representing a response rate of 33%.

The demographics of survey respondents were comparable to the CAS member population in the areas of age, gender, country, and credentials.

Response Rate: 1993 to 2023

Survey Year	Response Rate		
2023	33%		
2018	36%		
2013	41%		
2008	50%		
2003	52%		
1998	32%		
1993	41%		

Association Research Inc., an independent survey research organization located in Ijamsville, Maryland, conducted the quantitative survey, analyzed the findings, and prepared this report. All responses have been kept confidential; this report does not reveal information from any individual source.

The Member Advisory Panel Task Force assisted in the development of the survey and summarized the write-in comments. Task Force members included Janet Lindstrom, Chairperson, and members Glenn Balling, Shane Barnes, Louis-Philippe Caron, Andrew S. Dahl, Dawne Davenport, Ginda Fisher, Dustin Henever, Michael Henk, Shira Jacobson, Dan Johnson, Rebecca Knackstedt, Stephen Prevatt, Bob Schutte, Gerard Sims, and Brian Stoll.

Executive Summary

EXECUTIVE SUMMARY

CAS Strategic Direction

- Overall, most members indicate that CAS should focus strategically on serving as an advocate for the
 actuarial profession, promoting the profession to high school and college students, providing a
 community for actuarial professionals to connect, and raising public awareness and support for the
 profession.
- Members would most like for CAS's efforts and strategies to be highly significant in the areas of
 predictive analytics/data science, and artificial intelligence and machine learning. Additionally, a
 majority also say that CAS should devote highly significant efforts into climate risk, stochastic reserving,
 issues regarding potential bias in insurance rates, and enterprise risk management. A desire for highly
 significant efforts in the area of enterprise risk management is expressed more often than it was five
 years ago.
- Members are most threatened (in terms of competition) by other professions such as data scientists,
 although they are also often concerned about the perception of actuaries as having a narrow technical
 focus, technological advances (automation and artificial intelligence), and other actuarial bodies who
 offer alternative admissions pathways/continuing education. However, the proportion who see most of
 these as threats to current or future CAS members has decreased since 2018.
- Members report higher levels of support for building skills for the future, as opposed to diversifying the pipeline or expanding globally, as a continued focus of the CAS strategic plan.

Member Satisfaction and Engagement

- The majority of members report that the return on their CAS dues investment is equal to their expectations.
- Satisfaction ratings are highest for meetings/professional education, followed by overall satisfaction and publications. Members are less likely to be satisfied with board transparency, committee chairs, or organizational transparency. Notably, ratings have declined in every comparable area since 2018.
- While most members are satisfied with their own personal level of engagement with CAS, the average member believes they are less engaged with the organization when compared with the membership overall.
- Members are more likely to be unfamiliar with the CAS strategic plan than they are to be familiar with it. Still, more than two-thirds are satisfied with their engagement in CAS's strategic decision-making process. Of those wanting to increase their engagement, members are most attracted to responding to member surveys, followed by voting in CAS elections, participating in membership events, or volunteering for the CAS committees, working groups, and task forces.

Retirement

- Fewer than one in 10 members are retired, and, on average, have been out of the workforce for seven years. Since retiring, about one-third have attended CAS meetings or seminars, and another one-third have volunteered for committees, working groups, or task forces.
- Just over one-third of retirees are aware of the opportunities for them that CAS provides. While more than two-thirds of these members are pleased with the opportunities that CAS provides to them; more than eight in ten said the same five years ago.

Regional Affiliates, International Affiliates, and Special Interest Sections

- More than six in 10 members are active in a CAS regional affiliate, with the Midwestern Actuarial Forum being the most commonly represented. Activity in these affiliates, however, is lower than any time since 2008.
- In contrast, special interest sections have experienced a growth in active members, particularly with the Casualty Actuaries in Reinsurance representing 7.3% of members (up from 1.8% five years ago). Still, 86.1% are not active in any of these sections.
- Time continues to be the primary reason members say they don't participate in CAS regional affiliates, international affiliates or special interest sections.

Publications

- The most frequently read or referenced actuarial material is *The Actuarial Review*, with 31.4% reading/referencing it frequently, an increase from 29.5% saying the same in 2018. Members are somewhat more likely to access it in print (57.3%) rather than online (49.3%).
- The second-most frequently read or referenced material is the CAS web site, with 21.0% reading/referencing it frequently. Of all materials listed, members are most likely to reference the web site on an occasional basis (65.7%). While 68.9% read/referenced *Variance* occasionally in 2018, this percentage has fallen to 47.6% in 2023.
- Most all reading/reference materials, though, are currently more likely to receive "high" quality ratings than they received in 2018. Members are most likely to report this about *Variance* (61.5%).
- Members are most likely to be satisfied or very satisfied with the availability of CAS publications, although satisfaction ratings are nearly as high for content, format, frequency, and organization.
 However, satisfaction ratings for nearly all areas evaluated of CAS publications have dropped from 2018 by at least 10 percentage points each. In fact, the only area in which the ratings loss is under that level is in "improvement over the past five years" (down by 9.5 percentage points).
- Most members either have no interest in writing papers for future CAS publication, are unsure as to
 whether they are qualified to do so, or have less interest in writing papers than in other CAS activities.
 Just 6.6% of all members are interested and plan to submit papers for CAS publication in the future, a
 drop from 9.6% saying the same five years ago.

- More than four in 10 responding members rarely read *Variance*, while nearly one half uses it as
 reference material and reads articles as needed (25.1%) or reads it a couple of times a year (20.2%).
- While members are most likely to not have an opinion about the quality of the *Variance* articles (39.5%), nearly half say the articles are good (30.3%) or very good (17.7%). The proportion of those saying the quality is good has increased slightly (from 29.2% in 2018 to 30.3% in 2023), while the proportion judging the quality as very good has dipped from that time (from 22.8% in 2018 to 17.7% in 2023).
- Most often, members also don't have an opinion about the technical difficulty of the articles in *Variance*, although 31.5% said they are challenging, but can be understood, and 22.1% say they are just right.
 Nearly one-third reported that some of the article topics are relevant to their work, while nearly one-quarter say a few are relevant. In terms of article length, more than four in 10 say it is just right (41.8%).

Communications

- Members most often visit the web site once a month (43.7%), although 36.5% claim to visit less than once per month.
- LinkedIn is the social media channel that members use to engage with CAS most often, and members are more likely to engage with CAS on LinkedIn in 2023 vs. 2018. Similar to the findings for the main CAS account, members are more likely to follow the CAS Institute on LinkedIn in 2023 than they were in 2018.
- Members interested in following CAS on social media are about equally as interested in seeing posts
 about CAS publications and research, updates on general CAS activities, insurance industry news, and
 information on CAS educational opportunities. They are relatively less interested in news about CAS
 members or campaigns supporting various segments of the CAS community, though those types of posts
 receive the highest levels of engagement (likes, shares) when looking at social media metrics.
- The vast majority of members receive the *Actuarial Review* e-newsletter (86.2%), and nearly half read it often. Nearly seven in 10 receive the CAS weekly e-bulletin newsletter, with 35.2% reading it often, and while 38.0% receive the UCAS online education e-newsletter, just 11.1% read that publication often.
- Regardless of the vehicle, members would like to see several types of information covered more
 extensively in CAS communications, including professional education opportunities, policy decisions
 made by the CAS Board of Directors, the strategic plan, and admissions/credentialing updates. Nearly
 nine in ten say that emails and e-newsletters are the most effective channel for communicating
 information about the CAS.
- More than half of members (52.6%) agree that communications from the CAS are clear, easily
 understood and helpful, with 8.1% strongly agreeing, and most (80.0%) have not faced challenges in
 accessing or finding specific CAS communications or resources.
- There is limited interest in participating in an online discussion forum hosted by the CAS for CAS members and others to discuss actuarial topics (27.9%), with more support among members outside of the US and Canada.

Professionalism

Members are nearly equally split between those in favor of requiring all members to periodically attend a course on ethics/professionalism (31.1%), those who say it should only be required of members who are providing actuarial services (36.6%), and those who do not say it should be required at all (32.3%). When compared with 2018 results, members in 2023 are more likely to be in favor of requiring this for everyone, and less likely to report that it should not be required at all.

Governance/Elections

- Members are most likely to say they cast votes for all offices in the last CAS election (48.3%), but over one-fifth chose not to vote. The proportion who say they were not eligible is just over half of what it was five years ago (17.7% in 2023 vs. 32.7% in 2018); however, it should be noted that Five-Year Associates received the right to vote beginning after the last Quinquennial Survey.
- Satisfaction rates with the transparency and process of nominating members for office are fairly similar, regardless of the office being voted for: Board of Directors (43.6%), Vice President (39.5%), or President-Elect (39.5%). These rates are also very similar to those observed in 2018.

Research and Development

- Most often, members do most of their work in the area of ratemaking/pricing, with 49.0% saying that
 this topic accounts for the majority of their work.
- Of all CAS research publications, members read *Actuarial Review* with the greatest frequency–more than one-quarter read it very often (27.7%). No other publication captures a double-digit proportion of members who say they read it very often.
- In terms of research areas of interest, macroeconomic drivers of insurance costs would appeal to the largest percentage of members; more than half (54.2%) would like to see more research in that area. However, just over half say the same about deep learning/artificial intelligence (50.1%), while a somewhat smaller proportion want more research on the impact of climate change (46.5%). In most other areas, members are most likely to want a similar amount of research to what is currently being conducted. Interest in research on InsurTech, though, has declined.
- Members primarily think that research that is directly relevant to their work would improve their ability to apply CAS research on the job, with more than eight in 10 saying this would be valuable or very valuable to them.
- The CAS weekly newsletter is the primary method by which members currently become aware of CAS research, as well as being the method that is most favored. While they also typically learn of CAS research through *Actuarial Review*, they are less likely to prefer this method in the future.
- Respondents are primarily deterred from employing the results of recent CAS research in their work as a
 result of paucity and/or reliability of required data. A barrier that is similarly difficult to overcome is
 methods that are too complex to explain to a non-technical audience.

• More than seven in 10 would not recommend CAS research products to colleagues, as they rate their likelihood of doing so between 0-6 on a scale of 1-10. Just 4.1% rate their likelihood as a 9 or a 10.

Professional Education

- Members are most in need of continuing education in predictive analytics and pricing, however there is also substantial demand for professionalism and modeling. The preferred type of learning is on-demand courses, although blended learning would also appeal to many, as would industry leader panels and interactive sessions. The most desired type of speaker is one with diverse experience, and the preferred format is webinars (60 to 90 minutes). Members most often feel that the difficulty level in meeting CE requirements is just right.
- Members are most likely to say that their employer limits face-to-face meeting attendance based on the number of events, regardless of the cost, although it is nearly as common to be limited based on a budgeted cost of CE, regardless of the number of events.
- Nearly two-thirds of members have not attended at least one in-person CAS meeting or seminar in the
 last year. Content or location of the meeting are the biggest draws to attending, although networking is
 also an attraction for many. The main barrier to attendance is cost, which was also what most often
 prevented members from attending in 2018. Most often, they are prompted to attend a CAS CE event by
 a direct mail from CAS about the event.

Volunteerism

- Just over four in 10 members have volunteered with the CAS in the last five years. Most often, members
 report volunteering in admissions or professional education, either currently or in a previous volunteer
 capacity. More than half are satisfied with their overall experience volunteering with CAS, and 17.7% are
 very satisfied.
- The barrier that most often prevents increasing members' participation on CAS committees/task forces is time, followed by lack of interest at this time.

Admissions

- Members are split on the issue of whether the CAS should award exam credits based on performance in accredited courses in universities for preliminary exams 1 and/or 2. While 39.4% say no credit should be given for either preliminary exam, 30.6% say credit should be given for both.
- Members are far more likely to say that the current balance of technical and non-technical topics in the syllabus/content outlines of exams 5 through 9 is adequate, than they are to say it should be more or less weighted toward technical topics.
- More than four in 10 members felt very prepared as a candidate after completing a CAS exam, and 36.3% felt moderately prepared.
- Compared to similar professions with similar compensation and job satisfaction, members think that the appropriate targets to obtain the ACAS and FCAS credentials are 4.5 years and 6.8 years, respectively.

Diversity, Equity and Inclusion (DEI)

- Approximately seven in 10 agree or strongly agree with all of the diversity, equity and inclusion statements that diversity of thought/opinion is welcome, valued, and respected within the P&C actuarial profession, that diversity of thought/opinion is welcome, valued and respected at CAS, that they feel comfortable and respected by fellow CAS members when they offer a different opinion on a professional issue, and that they feel comfortable and able to offer their opinion on a professional issue to CAS even if their opinion is different from others. Agreement ratings are similar to what they were in 2018.
- More than half report that CAS's efforts at building diversity in the actuarial profession are appropriate, and at least six in 10 agree or strongly agree with most of the tactics that CAS adopted in its strategic approach to DE&I. Agreement falls just below 50% regarding the tactics of offering optional continuing education for general business skills related to DE&I, or that CAS should work closely with international partners in support of diversity and inclusion efforts outside of the United States.
- The majority of members also agree with most of the DE&I activities currently being pursued by CAS, with support highest for hosting "Be An Actuary" events to expose high school students to the actuarial profession. Members are less likely to agree with sharing articles about the experiences of people from different identity groups, or providing exam fee reimbursements specifically targeted at groups historically underrepresented in the profession, the latter of which has been recently discontinued.

International

• A small proportion of members (12.3%) have recognition (at an equivalent level) from one or more actuarial societies other than the CAS, CIA, AAA, or IAA; and a very small percentage (1.7%) is trying to obtain recognition from other actuarial societies.

Data Science

- Most agree or strongly agree that data science will create significant new career opportunities for
 actuaries and that actuaries are ideal candidates for performing data science functions. At the same
 time, members are far less likely to agree or strongly agree that they have a high-level of knowledge
 about data science.
- Approximately half are not directly involved in data science activities in their company, and the other half are either involved or occasionally involved in data science activities. Just over three in 10 members who work for an insurance or reinsurance company say their company is involved in data science activities (31.9%), although a proportion nearly as large (29.3%) say it is very involved. Fewer than one in six of those employed by a consulting or brokerage firm say data science services are involved or very involved in their firm's overall client services, though. Almost six in 10 say that their casualty actuaries are involved or very involved in their organization's data science function (although one-fifth indicate that this is not applicable to them).
- More than half support CAS increasing its current emphasis on data science, although nearly one-third say the existing emphasis should not be altered. Nearly four in 10 (37.7%) report that actuaries in their company spend 11%-30% of their time on data science.
- Most members say their company doesn't have a Chief Data Science Officer (56.6%), although
 approximately one-fifth (22.7%) say they do. Among those who said their company does have someone
 in this role, more than half (52.5%) do not know the individual's background, and one-quarter (25.9%)
 say it is a Fellow of the CAS.
- CAS's chief competition in the field of data science is widely perceived to be the data scientist.

Administration

- In most cases, members report that their employer pays for their CAS-related costs. However, when it comes to CAS volunteer activities, 25.2% of members say they pay all of their costs, and 13.8% say they pay for some of these costs.
- Over half would not pay most of their CAS expenses if they had to do so themselves. The only exception is CAS dues, with nearly seven in 10 being willing to shoulder this cost themselves if they had to.

Conclusions and Recommendations

CONCLUSIONS AND RECOMMENDATIONS

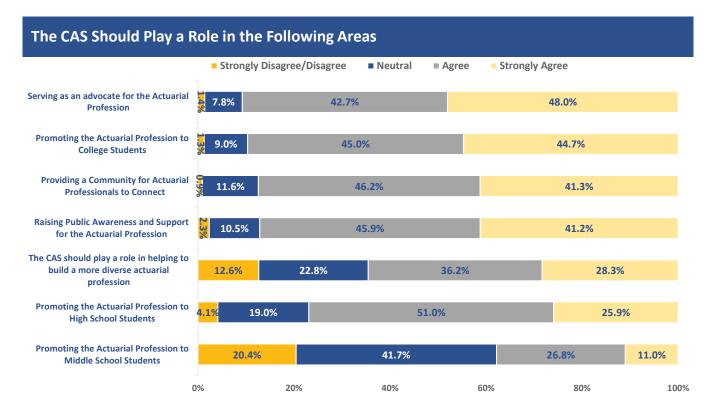
- The CAS should continue to focus its strategic planning on serving as an advocate for those in the
 actuarial profession, increasing visibility on college campuses and high schools, conducting events that
 promote the profession, facilitating a community for actuarial professionals to connect with each other,
 and conducting awareness campaigns that focus on the profession.
- Member-focused efforts should be primarily dedicated to skill-building in the areas of predictive analytics/data science, and artificial intelligence and machine learning. In the area of Data Science in particular, the CAS should devote resources into creating opportunities for members to develop high level knowledge of the topic. Additionally, the organization should also make sure that it pursues strategies on behalf of its members to inform them about climate risk, stochastic reserving, issues regarding potential bias in insurance rates, and enterprise risk management.
- The CAS should consider communicating with members more frequently and in-depth about its strategic plan, and highlight opportunities for members to become involved in ways that appeal to them such as conducting member surveys so they know they have a voice, actively promoting CAS elections, hosting membership events, and promoting volunteer opportunities for CAS committees, working groups, and task forces. Since many members are limited by time, the CAS should create volunteer opportunities that don't demand an excessive time commitment.
- Since most retirees are not aware of the opportunities that the CAS provides to them, the organization should be sure to promote opportunities for retirees to increase their participation.
- The CAS should continue to make The Actuarial Review available both in print and online formats so that it reaches members who prefer each. For all publications, the association should work closely with members to determine how content, format, frequency, and organization should be improved for each.
- The CAS should focus most of its social media efforts and strategies on leveraging LinkedIn. Posts about CAS publications and research, updates on general CAS activities, insurance industry news and information on CAS educational opportunities should be actively promoted.
- Editorial staff who work on the various CAS publications, emails and e-newsletters in particular, should focus on articles concerning professional education opportunities, Board of Director policy decisions, the CAS strategic plan, and admissions/credentialing updates.
- The CAS should approach how it might require a course on ethics/professionalism carefully, in order to not alienate a segment of its membership. The association may want to hold discussions with members to understand the concerns they might have with making such a course required and actively seek to alleviate these concerns. Similarly, CAS should also have more in-depth discussions with members regarding whether it should award exam credits based on performance in accredited courses in universities for exam 1 and/or 2, to better understand the concerns that members have around this topic.
- Given the finding that most members would not recommend CAS's research products to others, the association should promote and consider sponsoring research in the areas that are valued by members,

such as macroeconomic drivers of insurance costs, deep learning/artificial intelligence, and the impact of climate change, as well as promoting research conducted in these areas. Further, including program code, tools or spreadsheets, clearly communicating the methodology used, and making illustrative data and case studies demonstrating how the research can be practically used would increase the likelihood of members finding value in these efforts. Such research products should be actively highlighted in the CAS weekly newsletter.

- The CAS should introduce CE in the areas of predictive analytics, pricing, professionalism and modeling, and make these opportunities available primarily through on-demand courses and blended learning, led by speakers with diverse experience in 60–90-minute webinars.
- The CAS should continue to implement its efforts at DE&I, although consider focusing on tactics that have broad support such as hosting "Be An Actuary" events to expose high school students to the actuarial profession, providing exam fee reimbursements to exam candidates who have demonstrated financial need, sponsoring and advertising through non-actuarial organizations, and enhancing accommodations for candidates or members with disabilities. On the other hand, it should consider deemphasizing the work it does in offering optional CE for general business skills related to DE&I and working with international partners on diversity and inclusions efforts outside of the US.

CAS Strategic Direction

STRATEGIC DIRECTION

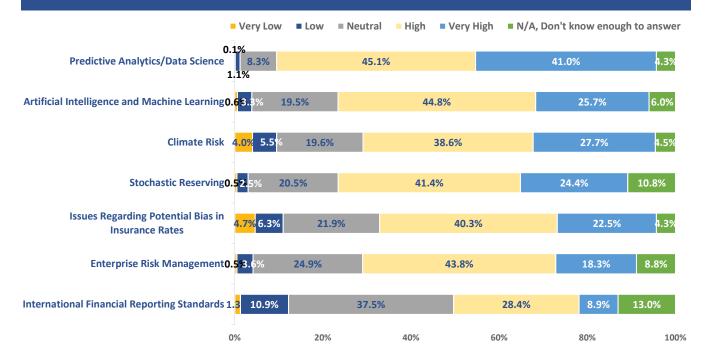


Approximately nine in ten members agree (agree/somewhat agree) that the CAS should serve as an advocate for the actuarial profession (90.7%) and that the organization should promote the actuarial profession to college students (89.7%). Additionally, more than four in ten <u>strongly</u> agree with these two statements (48.0% – serve as an advocate for the actuarial profession, 44.7% - promote the actuarial profession to college students).

A proportion nearly as large agrees (agree/somewhat agree) that the CAS should provide a community for actuarial professionals to connect (87.5%) and that the organization should raise public awareness and support for the actuarial profession (87.1%). More than four in ten also <u>strongly</u> agree with these statements (41.3% - CAS should provide a community for actuarial professionals to connect, 41.2% the association should raise public awareness and support for the actuarial profession). While more than three-quarters (76.9%) agree (agree/somewhat agree) that CAS should promote the actuarial profession to high school students, just 25.9% strongly agree with this idea.

Members are least likely to agree (agree/strongly agree) that CAS should promote the actuarial profession to middle school students (37.8%) with just 11.0% strongly agreeing. In fact, members are most likely to be neutral on this question (41.7%). Nearly two-thirds (64.5%) of members agree (agree/strongly agree) that CAS should play a role in helping to build a more diverse actuarial profession, although just 28.3% strongly agree with this statement.





Members are most likely to say that CAS's efforts and strategies should be highly significant (high or very high) in the area of predictive analytics/data science, with 86.1% saying so. However, approximately seven in 10 say the same about artificial intelligence and machine learning (70.5%), with slightly lower proportions believing the same about climate risk (66.3%), stochastic reserving (65.8%), issues regarding potential bias in insurance rates (62.8%) and enterprise risk management (62.1%).

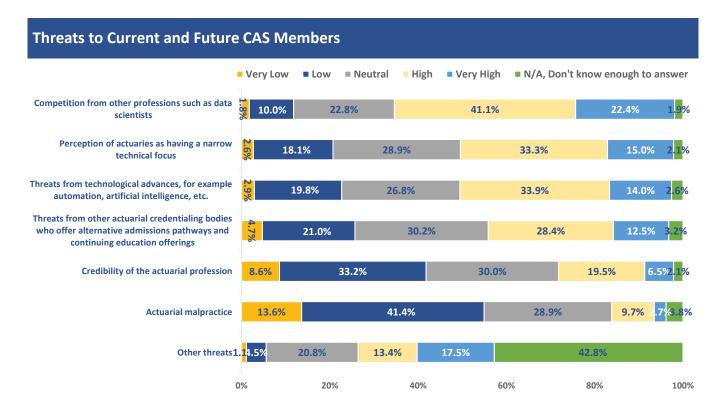
There is relatively less support among members calling for CAS to focus on international financial reporting standards (37.3%).



The proportion of members indicating that efforts and strategies should be highly significant (very high/high) has increased between 2018 and 2023 for all topics that have been measured in both waves.¹ In particular, the increase in the proportion calling for Enterprise Risk Management to be a highly significant effort/strategy has been most substantial, with a jump of 14 percentage points in the last five years.

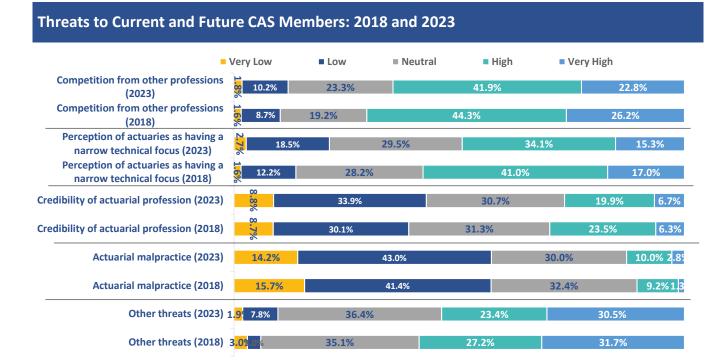
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¹ Note that when comparing 2023 and 2018, the proportions for 2023 have been recalculated to exclude "N/A/Don't know enough to answer" so that the comparisons are based on consistent data.



Members report feeling most threatened by competition from other professions such as data scientists, with 63.5% indicating that this is a high or very high threat. Almost half say the same about the perception of actuaries as having a narrow technical focus (48.3%) and threat from technological advances, such as automation and artificial intelligence (47.9%). Just over four in ten also indicate that threats from other actuarial credentialing bodies who offer alternative admission pathways and continuing education offerings is very high or high (40.9%).

Just 26.0% feel there is a very high/high threat regarding credibility of the actuarial profession, and a mere 12.4% say the same about actuarial malpractice.



However, concerns about most of these areas have eased since 2018². Only the perception of the threat over actuarial malpractice has increased since that time, but the rise in high/very high concern about that issue is fairly limited (rising from 10.5% in 2018 to 12.8% currently).

40%

60%

80%

100%

Written responses regarding the unique roles or benefits the CAS provides were provided by 17% of survey respondents. The most commonly recurring themes included:

20%

- The accreditation process, specifically that the CAS's high standards lead to high paying jobs and respect in the property and casualty industry, as well as in-depth knowledge of P&C insurance and methods to address problems & issues unique to the industry.
- The CAS education standards are exclusively devoted to P&C insurance, with recurring comments about the quality of the webinars, seminars, and publications.
- The networking offered at the national and regional meetings provides the opportunity to meet and share knowledge with fellow P&C actuaries.

In terms of what "should" the CAS provide, 10% of survey respondents offered write-in comments. The most commonly recurring themes included:

- Be an advocate for the value of the casualty actuary as a solver of business focused technical problems and building CAS credentialed actuaries into qualified business leaders, e.g. CEOs.
- Be a leader on emerging P&C topics and assist in the advancement of methodologies.
- Promote CAS research and have more global outreach programs.
- Maintain a rigorous education program.
- Provide more networking and cross training opportunities.

0%

• Expand outreach to schools and universities with information regarding the actuarial profession.

² Note that when comparing 2023 and 2018, the proportions for 2023 have been recalculated to exclude "N/A/Don't know enough to answer" so that the comparisons are based on consistent data.

20% of survey respondents offered write-in comments to indicate the top two issues that will impact their professional life in the next five years. The four most prevalent recurring themes included:

- Technology was referenced by 33% of comments received. Of those, 50% mentioned artificial intelligence in some form, from the threat of AI impacting actuarial work, to overuse or misuse of the tool. The next largest group in this category, 26%, discussed the need to develop new technical skills.
- Workforce was referenced by 17% of respondents with remote work or return to office being most
 prevalent focus within this category. Other areas included career transitions into new roles, excessive
 supply of actuaries, ability to attract new talent relative to related professions, and retaining current
 talent.
- Emerging or recently emerged risks were referenced within 15% of responses; of these the majority mentioned climate risk. Other emerging risk elements included COVID, inflation (monetary and social), and increasing Catastrophe Risk.
- Perception of the actuarial profession was the fourth largest category, with competition from non-actuaries, specifically data scientists, being the largest concern.

A total of 540 respondents shared written comments about what they see as the top risks to the CAS (ERM Risks) as a professional organization in the near term of one to five years. The most commonly recurring themes included:

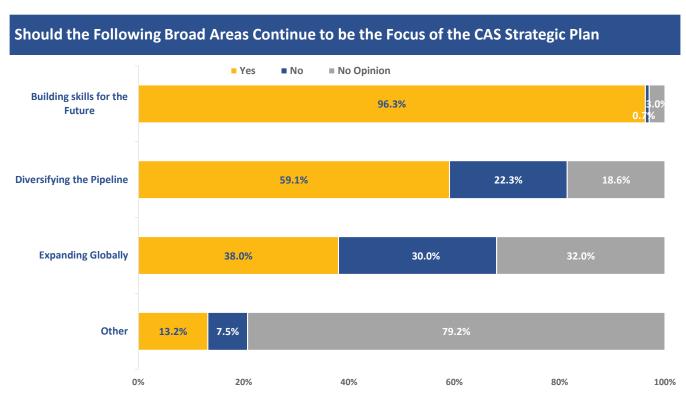
- Competition, representing 40% of the comments. Respondents noted that data scientists might assume some roles traditionally taken by actuaries. Relative ease of becoming a data scientist vs. an actuary, and employers' potential willingness to use data scientists in a broad range of roles was cited in comments.
- Political division was identified as a secondary theme of risks, representing 12% of comments. These related to "political" challenges within the CAS over DEI initiatives and their implementation.
- Artificial intelligence and related technologies were a third broad theme included in 9% of comments.
 This takes form both in the risk of AI taking on traditional actuarial roles, as well as AI changing the overall insurance market materially.

A total of 493 respondents shared written comments about what they see as the top risks to the CAS (ERM Risks) as a professional organization in the longer term, five to 25 years. The most commonly recurring themes were similar to what was referenced within the shorter-term question.

- Competition was a component of 31% of responses.
- Artificial intelligence was seen as a more significant risk in the long run, cited in 14% of comments.
 - o "Automation via AI taking over entry-level analytic work, creating a need to overhaul how future students are trained..."
- Adaptability and relevance of the profession was a more prevalent theme in the long-term comments, reflected in 14% of the comments.
- Climate change and related risk also was a more commonly cited risk in the long run. While this was cited among short-term risks, more members made mention of it as a longer-term risk to the CAS, in 6% of member comments.
- Political and internal risks were reflected in only 4% of long-term risk comments.

A total of 460 survey respondents provided written comments regarding the top two issues that will impact the CAS in the next five years. The most commonly recurring themes included:

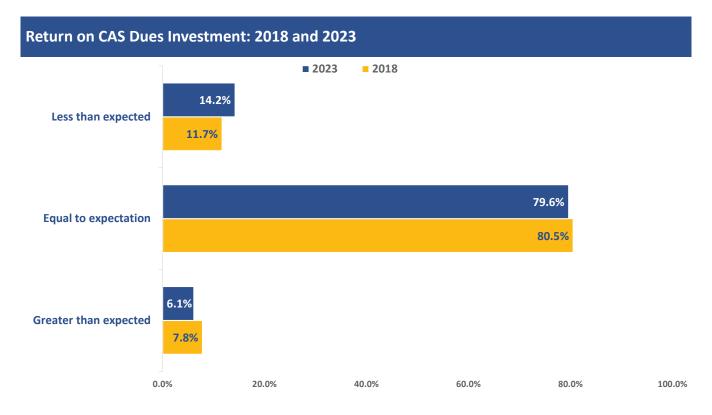
- Whether the property/casualty actuary can remain a relevant profession, given that other disciplines may now be perceived as being competent to handle an actuary's responsibilities and more. Closely related to this theme is competition from data scientists and other related fields. Both themes were identified by about 10% of respondents.
- Political and social issues affecting the insurance industry and the working experiences of actuaries was identified as an issue in over 9% of the responses.
- The challenges the CAS faces due to alternative paths to professional credentials provided by other actuarial organizations was cited as an issue in over 7% of the responses received.
- Around 5% of respondents identified AI, with comments suggesting both challenges and opportunities. Related to this theme, around 5% of responses indicated that the insurance industry and the actuarial profession failing to keep up with technology was a cause for concern.
- Finally, around 5% of responses expressed that attracting talent (whether straight out of college or at a different stage of one's career) was a challenge, especially with the perception that the road to Fellowship was longer and more difficult than achieving professional status in other fields.



Members are nearly unanimous in saying that building skills for the future should be a focus of the CAS strategic plan, with 96.3% saying so. Nearly 6 in ten indicate that the strategic plan should continue to focus on diversifying the pipeline (59.1%), and nearly four in 10 (38.0%) would like to see CAS's strategic plan continue to focus on expanding globally.

Member Satisfaction and Engagement

MEMBER SATISFACTION AND ENGAGEMENT

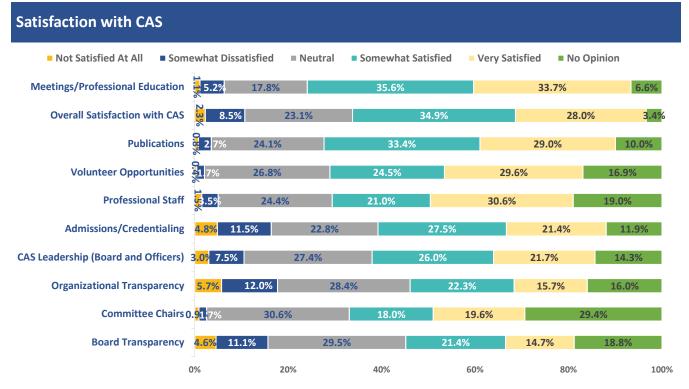


Most members (79.6%) consider the return on their CAS dues investment is equal to their expectation, essentially unchanged from 2018 (when it was 80.5%). The proportion believing it is greater than expected has dropped slightly since that time (7.8% in 2018 compared with 6.1% in 2023), while the proportion claiming it is less than expected has inched up from 11.7% in 2018 to 14.2% presently.

Respondents who indicated that the return on CAS dues was "Less than expected" were presented with the following question: If you feel that the dues and services/benefits are not in line with each other, what would need to be done to bring them in line? A total of 243 (7.2%) of respondents provided write-in comments. The most commonly recurring themes included:

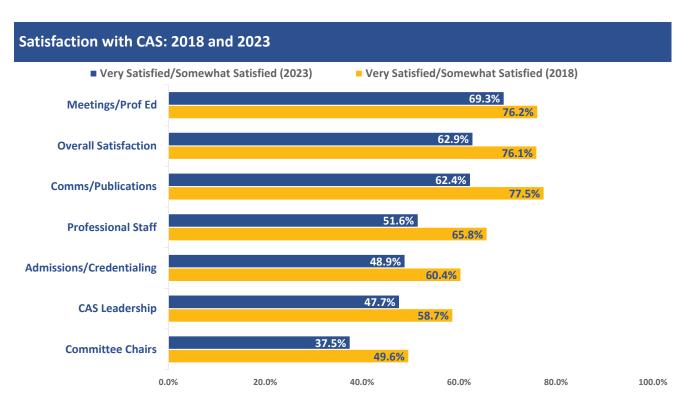
- Generally lowering costs represented 36% (88) of write-in comments, such as through reducing/removing costs for CAS continuing education opportunities and specifically for speakers.
- More and higher quality opportunities for continuing education represented 21% (52) of write-in comments.
- 12% (30) of write-in comments suggested improvements to the exam experience, 10% (24) suggested reducing spending on Diversity, Equity and Inclusion efforts, while 8% (21) suggested increasing efforts around pushing the actuarial field forward.

Beyond cost reductions and improvements, 18% (46) of write-in comments indicated that they were unaware of all of the benefits and services offered by the CAS.



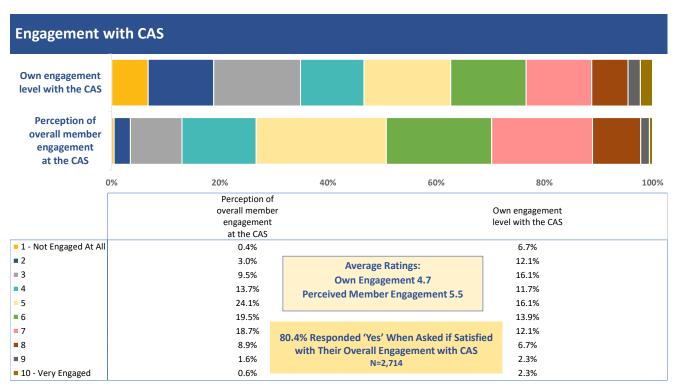
Of the various CAS areas studied, satisfaction ratings are highest for meetings/professional education, with nearly seven in 10 (69.3%) being somewhat (35.6%) or very satisfied (33.7%). More than six in 10 express satisfaction (somewhat or very satisfied) with CAS overall (62.9%) and with publications (62.4%).

Members are least likely to be very or somewhat satisfied with board transparency (36.1%), committee chairs (37.6%), or organizational transparency (38.0%).



Across the board, members in 2023 are less likely to be somewhat or very satisfied with every area of CAS that was also evaluated in 2018, with declines exceeding 10 percentage points in most areas. The only exception is a smaller decline for meetings/professional education of 6.9 percentage points.

Respondents were provided the opportunity to share written comments related to satisfaction with the various areas. The Admissions/Credentialing received the most write-in comments, with 243 (7.2%). The most commonly recurring themes related to dissatisfaction with Admissions/Credentialing were a lack of transparency, issues with computer-based exams, and lengthening travel time. Other areas of the CAS did not receive a significant number of write-in comments.



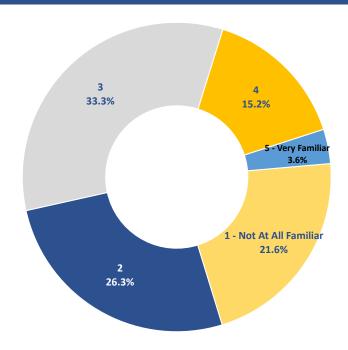
The average member respondent believes that they themselves are less engaged with the CAS than the membership overall. On a scale of 1-10, the average member rates their engagement level at 4.7, while their perception of overall member engagement is an average of 5.5.

However, more than eight in 10 (80.4%) are satisfied with their own personal level of engagement with the CAS.

Familiarity with the CAS Strategic Plan

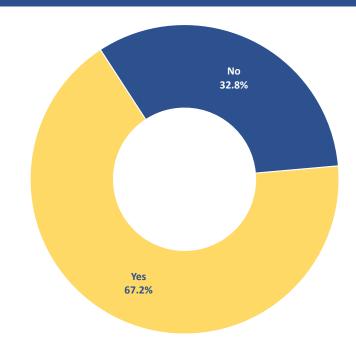
N=2,977

N=2,843



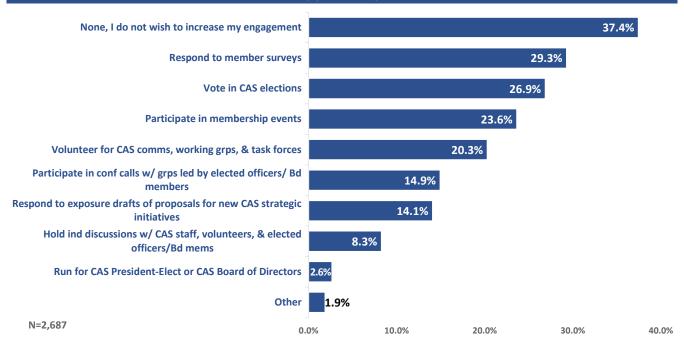
Members are more likely to lack familiarity with the CAS strategic plan than they are to be familiar with it. More than one in five say they are not at all familiar (21.6%) while just 3.6% say they are very familiar.

Satisfied with Your Engagement with the CAS's Strategic Decision-making Process



Most members are satisfied with their engagement in the CAS's strategic decision-making process, with 67.2% saying so.

If Would Like to Increase Engagement with the CAS's Strategic Decision-making Process, What Would Prefer to do More of, or Have the Opportunity to do:

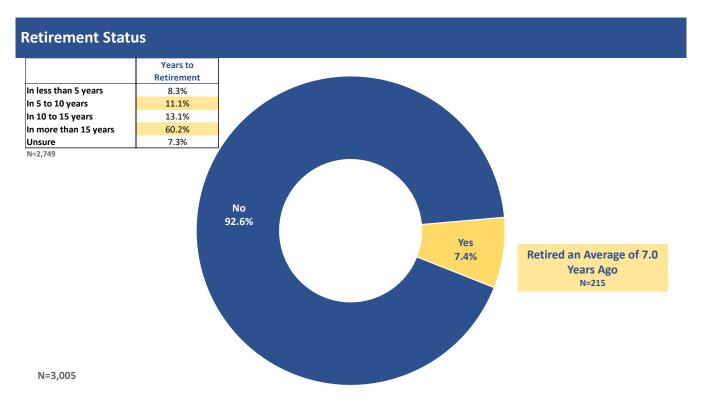


When asked about specific ways in which they might be able to increase their engagement with this process, more than one-third (37.4%) indicate they do not wish to increase their engagement at all. Of those indicating an interest, responding to member surveys was cited most often as a way to further engage (29.3%), followed by voting in CAS elections (26.9%), participating in membership events (23.6%), or volunteering for CAS communications, working groups, and task forces (20.3%). Interest is lowest in running for CAS President-Elect or CAS Board of Directors, with just 2.6% indicating they would like to increase their engagement in that way.

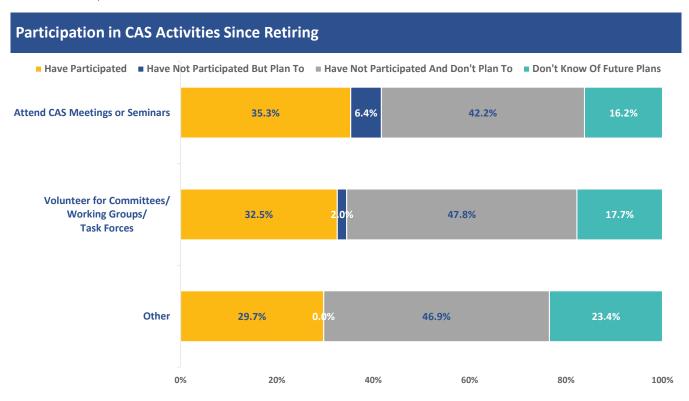
Members who indicated they wanted to increase their engagement with the CAS's strategic decision-making process, submitted 48 write-in comments (1.4% of all respondents), the majority of which pertained to education, citing education planning, authoring articles, and clerical work related to exams. A few comments pertained to communications, citing reading news releases, receiving updates on strategy, and responding to strategic initiatives to promote transparency.

Retirement

RETIREMENT



Just 7.4% of responding members are retired, although a proportion slightly larger (8.3%) plan to join the ranks of the retired in less than five years. Among retirees, the average amount of time that has elapsed since they left the workforce is 7 years.

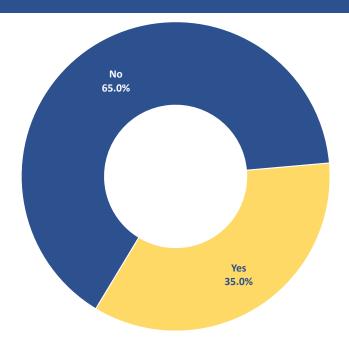


Since they have left the workforce, retirees are slightly more likely to have participated in the CAS by attending CAS meetings or seminars (35.3%) than by volunteering for committees, working groups or task forces (32.5%). Of those who chose "Other", there were only 23 write in responses with no significant common themes to report.

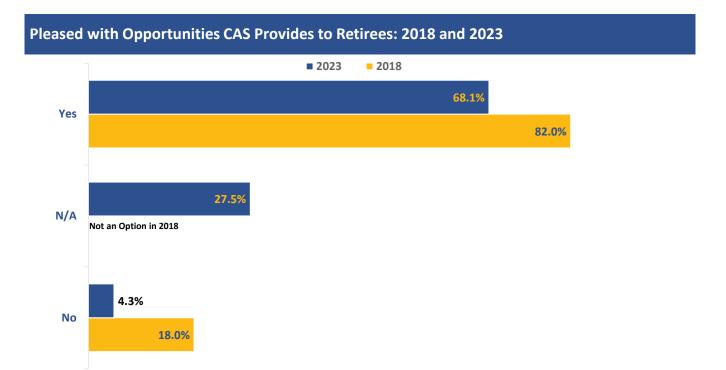
However, just 6.4% of those who have not attended CAS meetings or seminars plan to do so and the proportion who have not volunteered for committees, working groups, or task forces who plan to engage in that activity is even lower (2.0%).

Aware of the Opportunites the CAS Provides to Retirees

N=214



Just over a third of retirees (35.0%) are aware of the opportunities for them that CAS provides.



While more than two-thirds of retirees in 2023 are pleased with the opportunities that CAS provides to them (68.1%), this proportion is a sharp decline from that observed in 2018 (82.0%).

40.0%

0.0%

20.0%

Written responses regarding what the CAS can do to improve the opportunities provided to retirees were provided by 63 survey respondents. Two common themes identified included increasing visibility of opportunities to retirees (24%) and lowering the cost of registration fees for meetings (16%).

60.0%

80.0%

100.0%

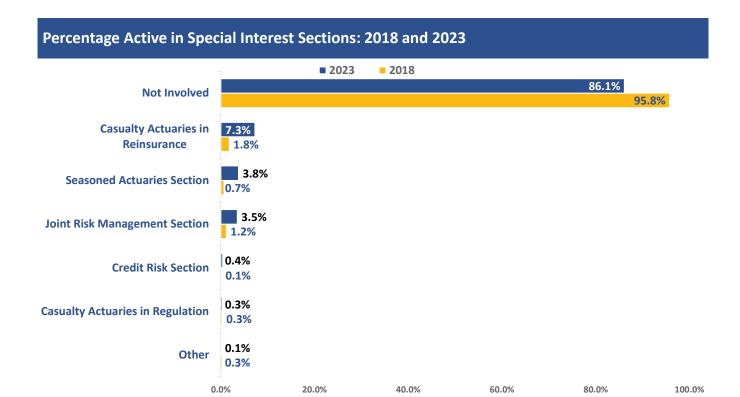
Regional Affiliates, International Affiliates, and Special Interest Sections

REGIONAL AFFILIATES, INTERNATIONAL AFFILIATES AND SPECIAL INTEREST SECTIONS

Percentage Active in Regional Affiliates: 2008 to 2023

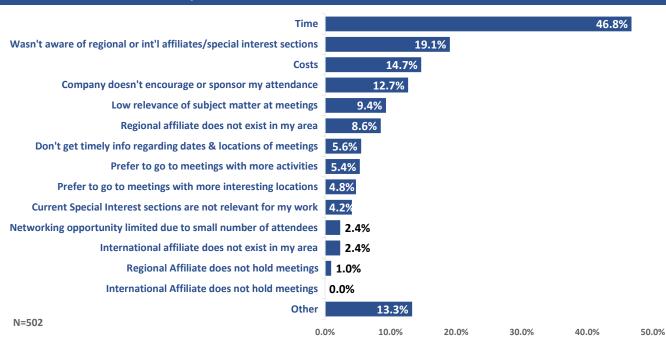
	2023	2018	2013	2008
Not an active participant	36%	27%	28%	40%
Midwestern Actuarial Forum	17%	16%	16%	16%
Casualty Actuaries of New England	9%	12%	14%	10%
Casualty Actuaries of Greater New York	8%	11%	10%	8%
Casualty Actuaries of the Mid-Atlantic Region	7%	7%	9%	6%
Association des Actuaries IARD	3%	4%	4%	4%
Casualty Actuaries of the Southeast	5%	5%	4%	4%
Ontario Conference of Consulting Actuaries	4%	4%	3%	3%
Southern California Casualty Actuaries Club	2%	3%	3%	3%
Buckeye Actuarial Continuing Education	5%	4%	3%	
Casualty Actuaries of the Northwest	2%	2%	3%	1%
Casualty Actuaries of the Bay Area	1%	3%	2%	2%
Central States Actuarial Forum	3%	3%	2%	1%
Southwest Actuarial Forum	2%	3%	2%	3%
Casualty Actuaries of Bermuda	1%	1%	1%	2%
Casualty Actuaries of Europe	1%	1%	1%	1%
Casualty Actuaries of Desert States	1%	1%	1%	1%
Asia Regional Casualty Actuaries (was of the Far East)	1%	0%	1%	1%
Other	1%	2%		

Just over one-third (36%) of members are not active in CAS regional affiliates. This proportion represents an increase from those who said so in 2018 (27%) or 2013 (28%), although it falls below the level who said so in 2008 (40%). Most often, members continue to be active in the Midwestern Actuarial Forum, with 17% indicating so in 2023. In 2023, no other regional affiliate captures a double-digit percentage of members indicating that they are active in it.



Activity in special interest sections, however, has increased between 2018 and 2023. While the vast majority are still not active in these sections (86.1%), 7.3% are active in Casualty Actuaries in Reinsurance, up from 1.8% five years ago. Additionally, 3.8% are active in the Seasoned Actuaries section (up from 0.7% in 2018) and 3.5% are active in the Joint Risk Management section (up from 1.2% in 2018).





Time is the main deterrent toward participating in a regional or international affiliate, or special interest section (46.8%). Approximately one in five are not aware of these affiliates or special interest sections (19.1%) and more than one in ten have not participated as a result of costs (14.7%) or because their company doesn't encourage or sponsor their attendance (12.7%).

Among the 52 respondents that submitted write-in comments for other, the most common reasons were their location, being retired, or not practicing as an actuary.

Reasons for Non-Involvement in Regional Affiliates or Special Interest Sections: 2008 to 2023

	2023	2018	2013	2008
Time	47%	59%	57%	56%
Costs	15%	22%	19%	15%
Company does not encourage or sponsor my attendance	13%	16%	14%	14%
Low Relevance of subject matter	9%	12%	13%	19%
Prefer to go to meetings with more activities	5%	11%	12%	
Regional or international affiliate does not exist in my area	9%/2%	10%	11%	10%
Current Special Interest Sections not relevant	4%	5%	5%	
Don't get timely information regarding the meetings	6%	4%	4%	
Networking Opportunity limited due to small number of attendees	2%	3%	3%	6%
Regional or International Affiliate does not hold meetings	1%/0%	1%	1%	
Was not aware of regional or int'l affiliates/special interest sections	19%			

Time as a barrier toward involvement in regional affiliates or special interest sections has been named most frequently in all prior waves. Still, the proportion citing this reason in 2023 (47%) is the first time the percentage saying so has fallen below 50%. While the percentage citing costs (15%) is lower than that in 2018 (22%) or 2013 (19%), it is at the same level reported in 2008. A comparison with 2018 in terms of those not being aware of these groups is not possible, as this option was not included on the 2018 survey.

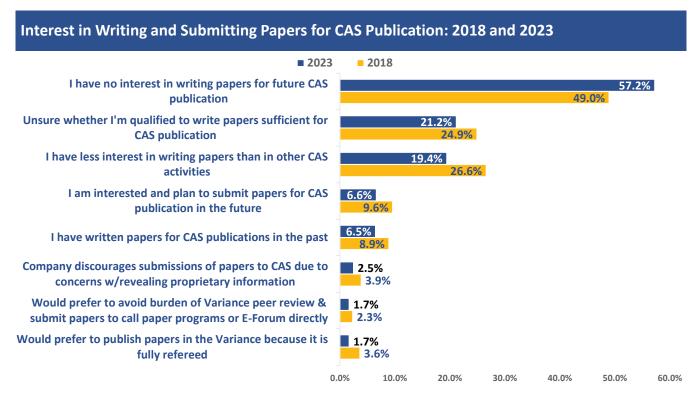
When asked to suggest improvements to affiliates and special interest sections, 7% of survey respondents provided write-in comments. The most common themes were:

- Better communications and marketing, including a request for more frequent communications, earlier dissemination of meeting notices, and centralized location for event notices, offered by 27 (12%) write-in respondents.
- Improved content including more relevant and diverse topics as well as more technical topics, offered by 18 (12%) of write-in respondents.

63 members provided suggestions for a new practice area. The most common answers suggested a Data Science practice area, followed by interest in an AI practice area. Remaining comments were spread across a variety of topics.

Publications

PUBLICATIONS



Only 6.6% responding members are interested and plan to submit papers for CAS publication in the future, a drop from 9.6% saying the same in 2018. More than half of members indicate a lack of interest in writing papers for future CAS publication (57.2%), up from 49.0% in 2018. Approximately one in five are unsure if they are qualified to write papers sufficient for CAS publication (21.2%) or have less interest in writing papers than in other CAS activities (19.4%), although both proportions are down from what they were in 2018 (unsure whether they are qualified – 24.9%, less interest than in other CAS activities – 26.6%).

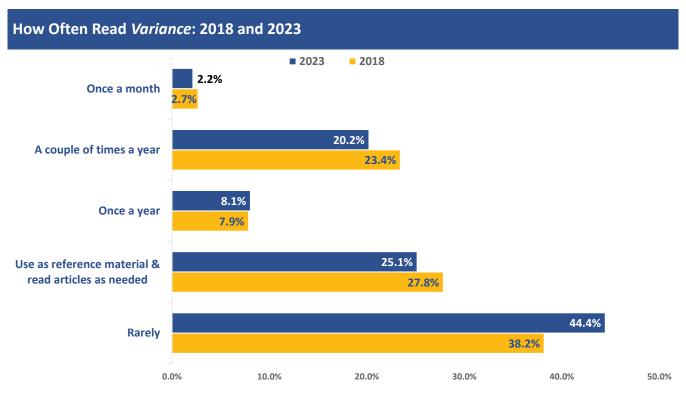
Many members face hurdles in writing papers, such as delays in the review and publication process, feelings of being unqualified, or a lack of time due to professional and personal obligations. There is a notable desire among potential contributors for mentorship, workshops, or guidance to assist them in starting their writing journey.

There is a demand for content in CAS publications that is more focused on practical, real-world scenarios.

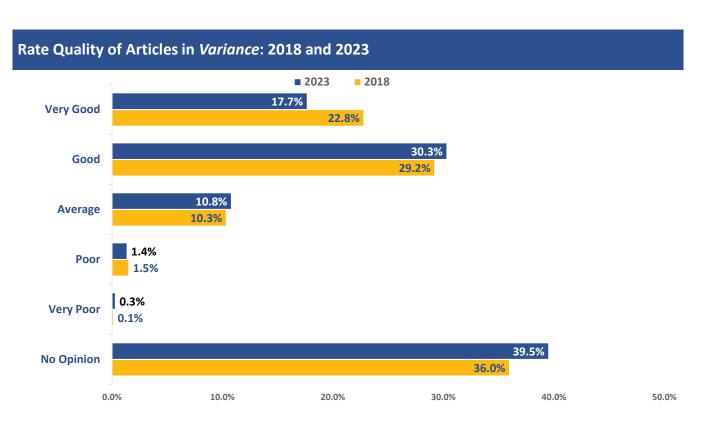
Criticisms about CAS publications include a tendency to favor mathematically intensive papers, a shortage of practical examples, and difficulties in data collection.

Some contributors have found that CAS publications tend to overly emphasize academic rigor, which can be a deterrent. Despite these challenges, a few individuals have expressed a specific interest in contributing to niche topics, such as insurance law and regulation.

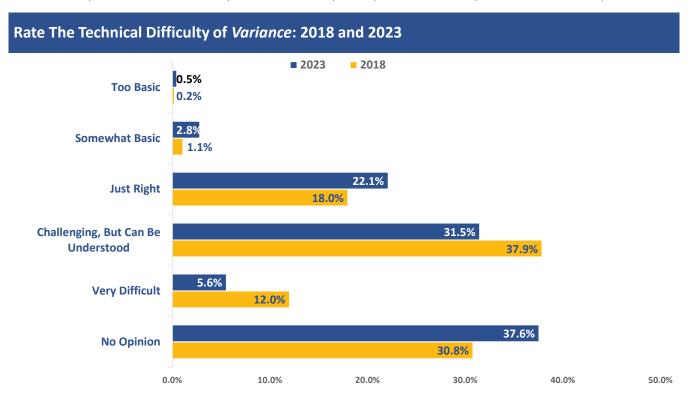
This narrative paints a picture of a community eager to engage with CAS publications, yet facing multiple barriers that hinder their active participation.



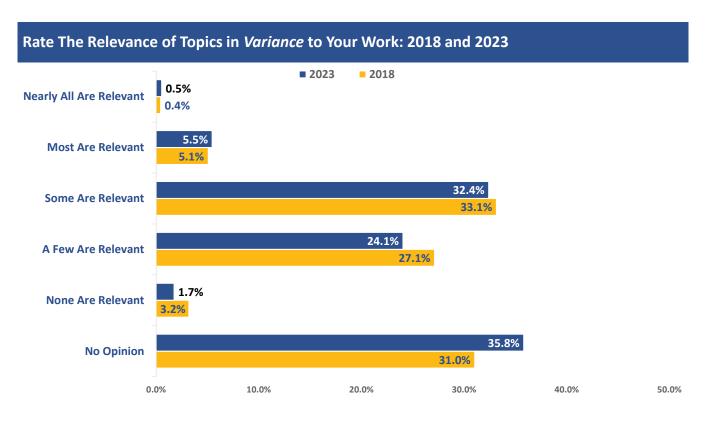
More than four in ten members (44.4%) rarely read *Variance*, an increase from 2018 (38.2%). One-quarter uses the publication as reference material and reads articles as needed (25.1%) and one-fifth acknowledge reading it a couple of times a year (20.2%).



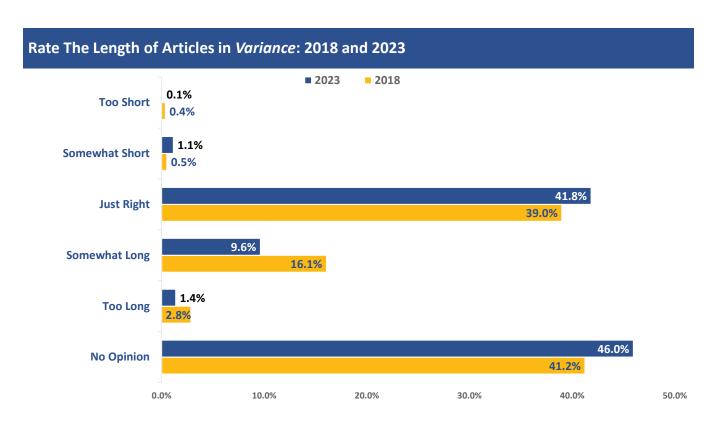
Members are less likely to rate the article quality in *Variance* as very good in 2023 (17.7%) than they were in 2018 (22.8%) and are more likely to rate it as good (30.3%), a slight increase from 2018 (29.2%). However, in both 2018 and 2023, respondents are most likely to not have an opinion (39.5% in 2023, up from 36.0% in 2018).



Overall, members are less likely to say that *Variance* is either very difficult (5.6%) or challenging, but can be understood (31.5%) than they did in 2018 (when 12.0% rated it as very difficult and 37.9% said it was challenging, but could be understood). In fact, the proportion reporting it is just right has increased somewhat from five years ago (22.1% versus 18.0% in 2018). The proportion not having an opinion has also increased since that time (37.6% currently versus 30.8% in the prior wave).



In general, members are about as likely to find the topics in *Variance* relevant to their work as they were in 2018 with approximately one-third (32.4%) finding that some of the topics are relevant, and about one-quarter (24.1%) saying a few of the articles are relevant. More than one-third (35.8%) do not have an opinion.



Members who have an opinion usually think that the length of *Variance* articles are just right (41.8%). About one in ten (9.6%) say they are somewhat long, but this is a decrease from 16.1% who said the same in 2018. More than four in ten (46.0%) don't have an opinion in 2023, up somewhat from 41.2% saying the same in 2018.

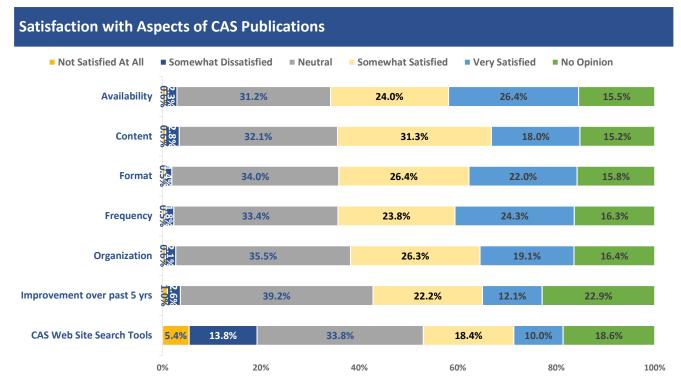
Reading Frequency of Actuarial Materials: 2018 and 2023

Frequency Read or Reference Actuarial Materials									
	2018			2023					
	Never	Occasionally	Frequently	Never	Occasionally	Frequently			
The Actuarial Review	9.0%	61.5%	29.5%	11.9%	56.7%	31.4%			
ASTIN Bulletin	86.8%	12.0%	1.3%	90.3%	8.6%	1.1%			
CAS E-Forum	72.8%	23.7%	3.5%	76.4%	21.0%	2.6%			
CAS Web Site	8.7%	65.3%	26.0%	13.3%	65.7%	21.0%			
Insurance: Mathematics and									
Economics	95.5%	4.2%	0.4%	95.0%	4.7%	.3%			
Journal of Actuarial Practice	93.9%	5.6%	0.5%	95.4%	4.3%	.4%			
Materials from CAS-sponsored									
meetings/seminars	24.5%	63.2%	12.4%	39.1%	52.1%	8.8%			
North American Actuarial Journal	93.0%	6.5%	0.5%	96.0%	3.5%	.5%			
Variance	18.6%	68.9%	12.5%	46.7%	47.6%	5.6%			
The Actuary	70.6%	24.6%	4.8%	82.5%	15.0%	2.4%			

The most often read actuarial material is *The Actuarial Review*, with 31.4% reading it frequently. More than half of members (56.7%) also read it occasionally; the proportion of occasional readers is down somewhat from 61.5% in 2018, while frequent readership has ticked up (from 29.5% in 2018).

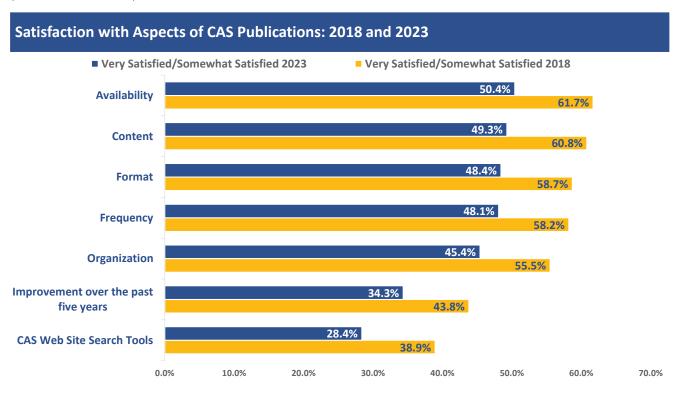
The CAS web site is the second most often consumed material in 2023, with 21.0% reading it frequently, sliding down from 26.0% in 2018. However, the web site enjoys the highest level of occasional readership (65.7%). More than one in ten members never read information on the web site (13.3%), rising from 8.7% five years ago.

More than nine in 10 members never read ASTIN Bulletin, Insurance: Mathematics and Economics, Journal of Actuarial Practice, and North American Actuarial Journal. With the exception of Insurance: Mathematics and Economics, readership has slipped for all of these publications somewhat from 2018. In fact, every other publication studied also experiences at least some erosion of readership since that time. The most notable decline is for Variance – 68.9% read it occasionally in 2018 while just 47.6% say the same today.



Members are most likely to be satisfied (very/somewhat) with the availability of CAS publications (50.4%), but satisfaction (very/somewhat) ratings are nearly as high for content (49.3%), format (48.4%), frequency (48.1%) and organization (45.4%).

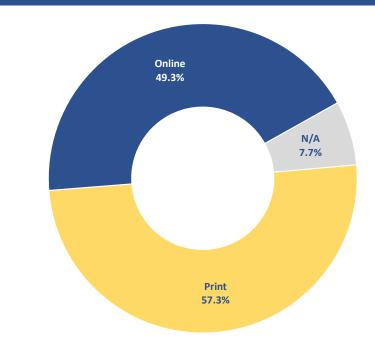
Members are less likely to express satisfaction (very/somewhat) with CAS website search tools (28.4%). Just over one-third say the same about improvement over the past five years (34.3%), although 22.9% do not have an opinion about that improvement.



Notably, however, satisfaction ratings in all areas are lower than were observed in 2018.

How Access the Actuarial Review Magazine

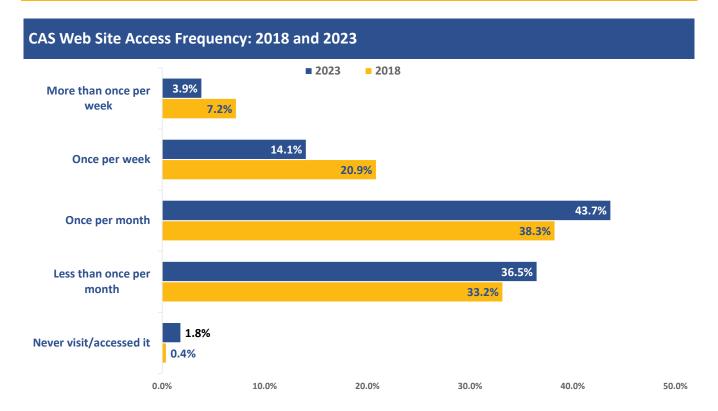
N=1,275



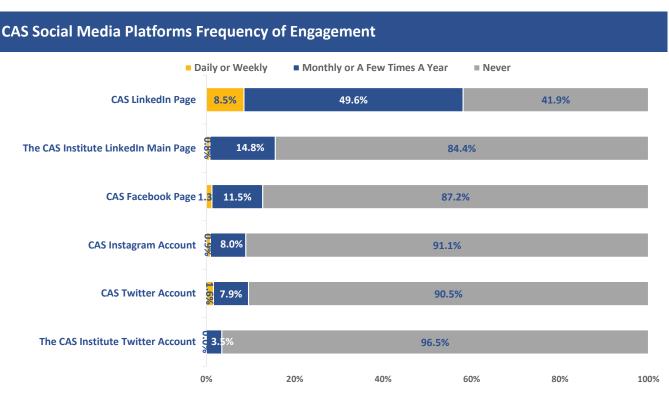
Responding members report accessing the *Actuarial Review* magazine somewhat more often in print (57.3%) than via online access (49.3%).

Communications

COMMUNICATIONS

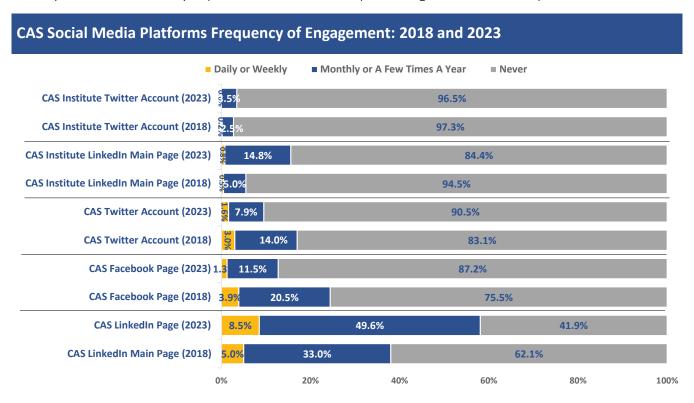


Most often, members access the CAS web site once a month (43.7%), although more than one third visit it less often (36.5%). Visitation frequency has dropped off since 2018; at that time 20.9% visited once a week while just 14.1% say the same in 2023. Additionally, 7.2% visited more frequently in 2023, while just 3.9% accessed the site more than once a week in 2018.



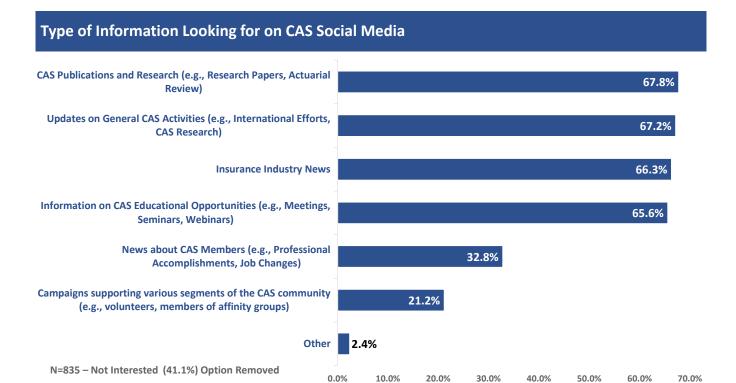
Members most often engage with the CAS LinkedIn page compared with other social media platforms, with 49.6% saying they do so monthly or a few times a year, and 8.5% engaging with it daily or weekly. Just over one in 10 use the CAS Facebook page monthly or a few times a year, with slightly lower proportions saying the same about the CAS Instagram account (8.0%) or the CAS Twitter account (7.9%).

Of the two CAS Institute accounts, engagement is more frequent with its LinkedIn Main page (14.8% using it monthly or a few times each year) than its Twitter account (3.5% using it at the same rate).



Usage of the CAS LinkedIn page has increased substantially from those who said they used the CAS Main LinkedIn page in 2018, when 33.0% engaged with it monthly or a few times a year (vs. 49.6% in 2023). Usage of the CAS Institute LinkedIn Main Page has also increased from 2018, with 14.8% of members using it monthly or a few times a year in 2023, up from 5.0% in 2018.

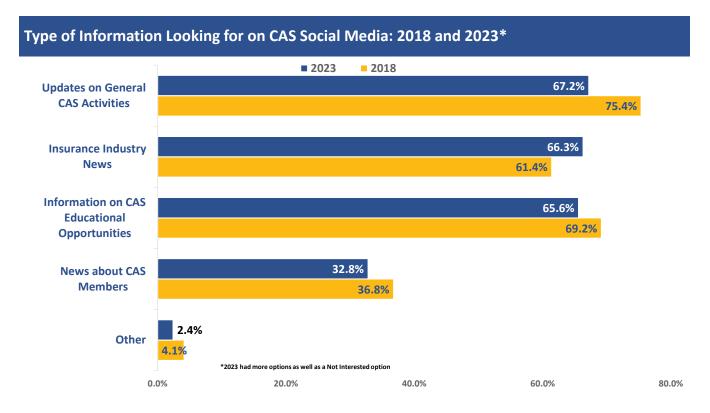
Engagement via the CAS Twitter and Facebook accounts have declined from 2018, with monthly/few times a year usage for the Twitter account falling from 14.0% in 2018 to 7.9% currently, and monthly/few times a year Facebook account engagement dropping from 20.5% in 2018 to 11.5% in 2023. A very small proportion continues to engage with the CAS Institute Twitter Account.



Of those members interested in following CAS on social media, most often they want to access four types of information: CAS publications and research (67.8%), updates on general CAS activities (67.2%), insurance industry news (66.3%) and information on CAS educational opportunities (65.6%).

Nearly one in three uses CAS social media to get news about CAS members (32.8%), while 21.2% are looking for campaigns supporting various segments of the CAS community.

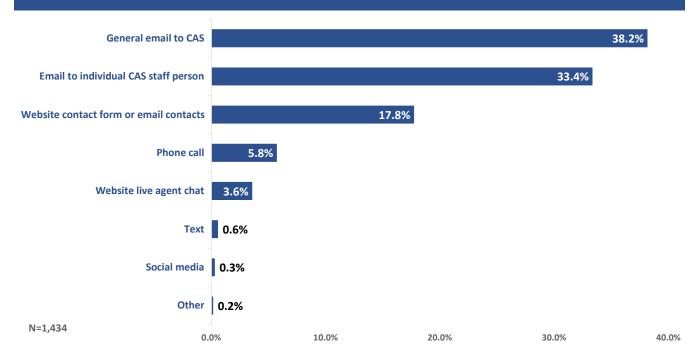
However, 41.4% of all members indicate a lack of interest in following the CAS on social media.



Members are less likely to look for updates on general CAS activities on social media than they were in 2018, and the percentages who look for information on CAS educational opportunities or news about CAS members on social media have also dipped in the last five years. Members are somewhat more likely, though, to look for insurance industry news on CAS social channels (66.3% in 2023 vs. 61.4% in 2018).

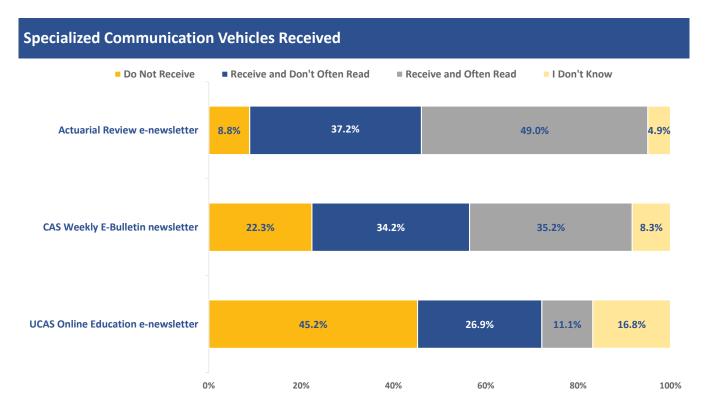
Members with 10 years or more of ACAS tenure are more likely to lack interest in following CAS on social media than those with less tenure.





Members most often prefer to contact the CAS via general email (38.2%), although they are nearly as likely to want to email an individual CAS staff person (33.4%). While 17.8% want to use a website contact form, just 5.8% want to call the CAS and 3.6% want to chat with a live agent on the website.

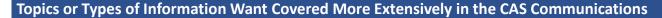
98 people provided comments in response. Almost half (48) indicated that prior communication experiences had been positive ones, well outnumbering those (14) who indicated that they received no response or one that was unhelpful and/or untimely.

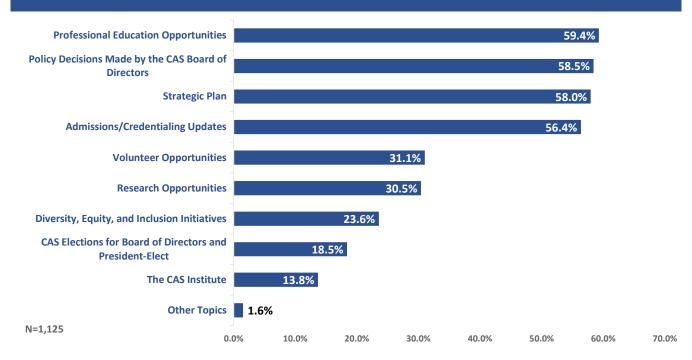


Nearly nine in ten (86.2%) members receive the *Actuarial Review* e-newsletter, and 49.0% also read it often, while 37.2% often do not.

More than one-fifth, however, do not receive the *CAS Weekly E-Bulletin* newsletter (22.3%) and nearly one in ten don't know if they receive it (8.3%). Just over one-third of members receive and read that publication often (35.2%), while a proportion nearly as large receive it but often don't read it (34.2%).

Nearly half of the membership (45.2%) does not receive the *UCAS Online Education* e-newsletter. Just 11.1% receive it and read it often, while 26.9% receive it but often don't read it. Moreover, approximately one in six (16.8%) don't know if they receive it.

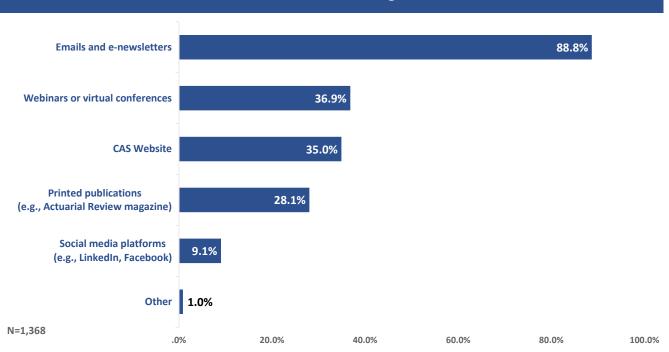




Members are about equally interested in seeing four topics/type of information covered more extensively in the CAS communications: professional education opportunities (59.4%), policy decisions made by the CAS Board of Directors (58.5%), strategic plan (58.0%), and admissions/credentialing updates (56.4%).

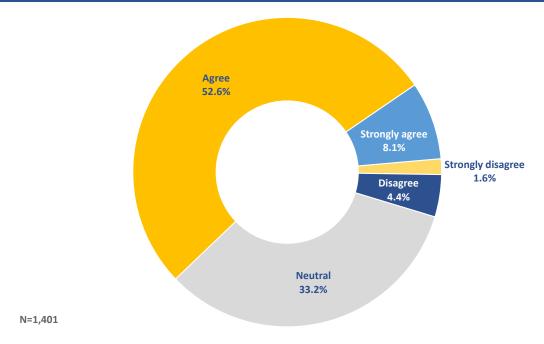
There is relatively low interest in coverage about the CAS Institute (13.8%), and only somewhat greater interest in CAS elections for Board of Directors and President-Elect (18.5%).

CAS Communication Channels Most Effective in Receiving Relevant Information



Nearly nine in 10 responding members (88.8%) report that emails and e-newsletters are most effective at conveying relevant information about the CAS. More than one-third also say the same about webinars or virtual conferences (36.9%) and the CAS web site (35.0%), and nearly three in 10 indicate that printed publications are most effective (28.1%). Fewer than one in ten (9.1%) say that social media platforms do the best job at providing them with information.

Agreement with the Following Statement: Communications from the Casualty Actuarial Society are Clear, Easily Understood, and Helpful



More than half of members (52.6%) agree that communications from the Casualty Actuarial Society are clear, easily understood, and helpful, with an additional 8.1% strongly agreeing. One-third of responding members are most likely to be neutral.

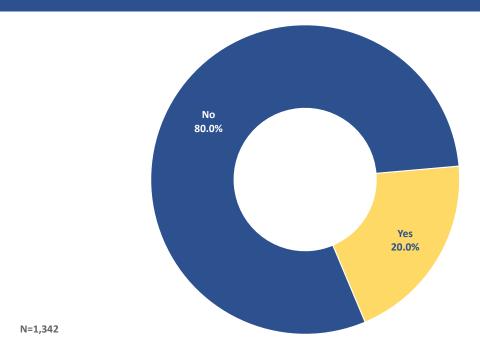
Written responses by those who selected disagree or strongly disagree were provided by 40 survey respondents. The most commonly recurring themes regarding specific improvements included:

- More concise communications, identified within nearly one quarter of write-in responses
- Improvement of website navigation, identified within 15% of write-in responses

A total of 205 survey respondents provided written comments regarding challenges faced in accessing or finding specific communications or resources from the CAS. The most commonly recurring themes included:

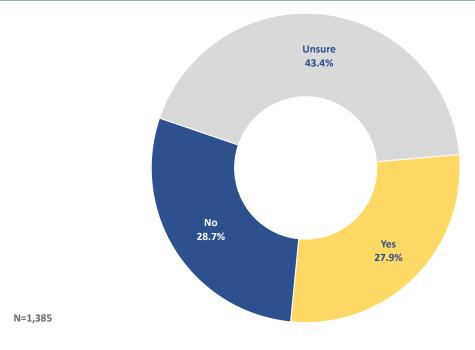
- Effectiveness of website, offered by 76 respondents (37%)
- Difficulty finding specific papers, articles, and other publications, offered by 37 respondents (18%)
- Challenging to locate admissions related resources and information, offered by 27 people (13%)

Ever Faced Challenges Accessing or Finding Specific CAS Communications or Resources



Most members (80.0%) have not found it challenging to access or find specific CAS communications or resources.

Would Participate in Online Discussion Forum Hosted by the CAS for CAS Members and Others to Discuss Actuarial Topics

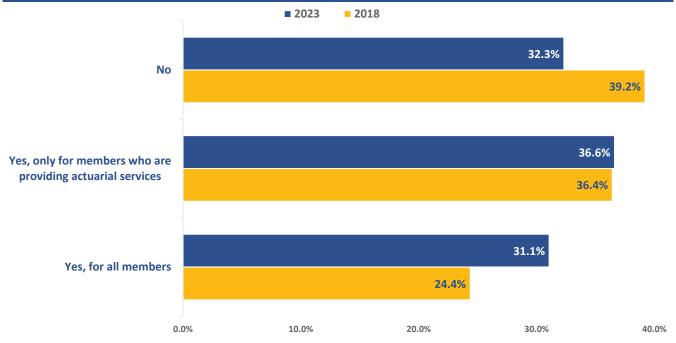


Just over one-quarter would participate in an online discussion forum hosted by the CAS for CAS members and others to discuss actuarial topics, although more than four in 10 are unsure.

Professionalism

PROFESSIONALISM

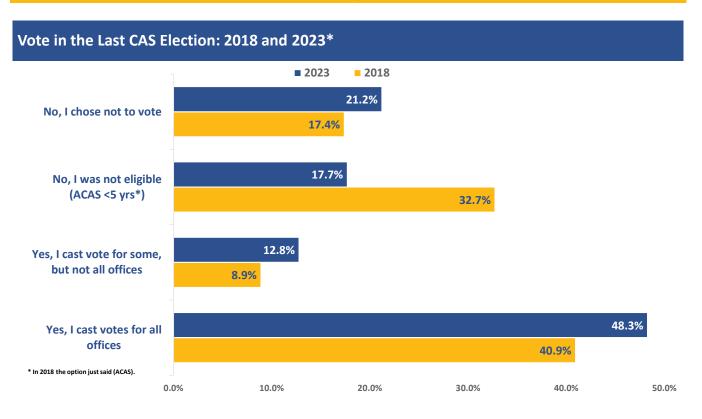




More than three in 10 respondents (31.1%) believe all members should be required to periodically attend a course on ethics and professionalism, up from 24.4% who said the same in 2018. While 39.2% indicated that this attendance should not be required in 2018, 32.3% say the same in 2023.

Governance/Elections

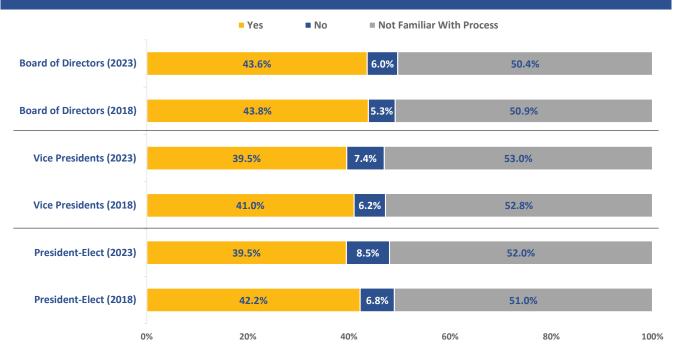
GOVERNANCE/ELECTIONS



Nearly half of members (48.3%) indicate that they cast votes for all offices in the last election, up from 40.9% in 2018. Just 17.7% say they were not eligible (they were ACAS certified for less than five years), which is just over half the rate of members who said they were not eligible (ACAS) five years ago (32.7%), as Five-Year Associates received the right to vote beginning after the last Quinquennial Survey.

Respondents who did not vote were asked: Why not? resulting in 145 write-in comments. Of those, 32% indicated they were not familiar with the candidates, 21% said they saw no compelling reason to vote, 19% were too busy with work or personal matters, and 12% responded that they simply forgot to vote.



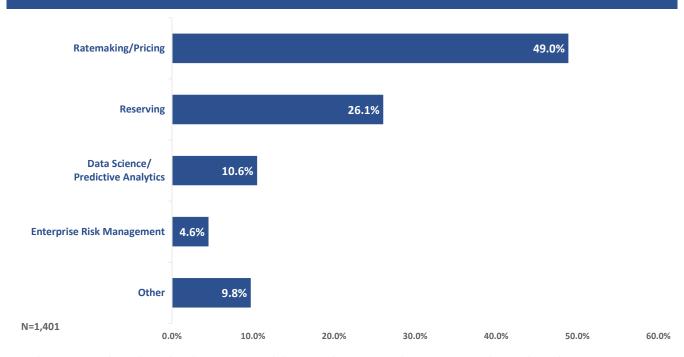


Approximately four in 10 members are satisfied with the transparency of the process currently being used to nominate CAS members for office, regardless of if it is for Board of Directors, Vice President, or President-Elect, and these proportions are similar overall to those observed five years ago.

Research and Development

RESEARCH AND DEVELOPMENT

Area Best Describes Practice Area for the Majority of Work



Members most often describe the majority of their work as ratemaking or pricing (49.0%), and just over one-quarter say it is reserving (26.1%). Approximately one in 10 say they are mostly involved in data science/data analytics (10.6%), and a small proportion (4.6%) work the majority of their time in enterprise risk management.

Of those who chose Other (9.8%), there were 134 write-in responses. Common themes of the write ins included Management (15%), Reinsurance (15%) and Capital/CAT Modeling (8%).



Research Areas Would Like to See...

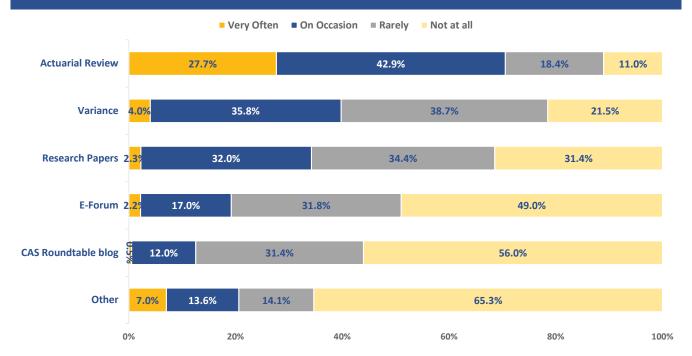
Bayesian techniques

International issues

0%

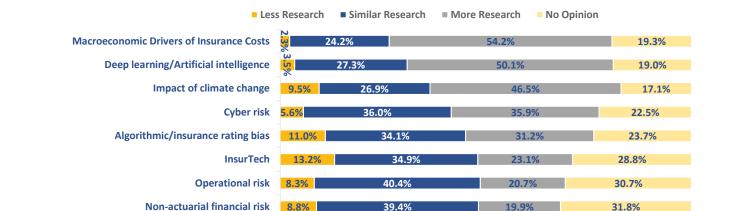
Impact of Changes to Accounting Standards

Impact of Changes to Solvency Regulations



Members read the *Actuarial Review* with the greatest frequency; more than one-quarter read it very often (27.7%) and an additional 42.9% read it on occasion. The publication with the second highest proportion reading it frequently is *Variance*, but only 4.0% say they read it very often, while 35.8% read it on occasion.

More than half do not read the *CAS Roundtable blog* at all (56.0%), and 31.4% do so rarely. Nearly half (49.0%) also do not read *E-Forum*.



34.1%

40%

60%

35.3%

35.4%

31.5%

31.8%

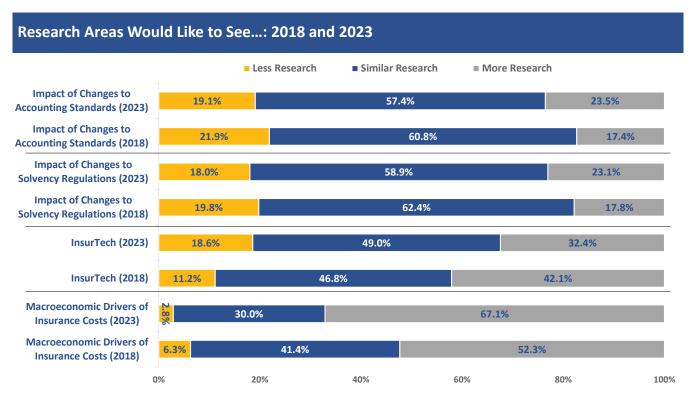
100%

80%

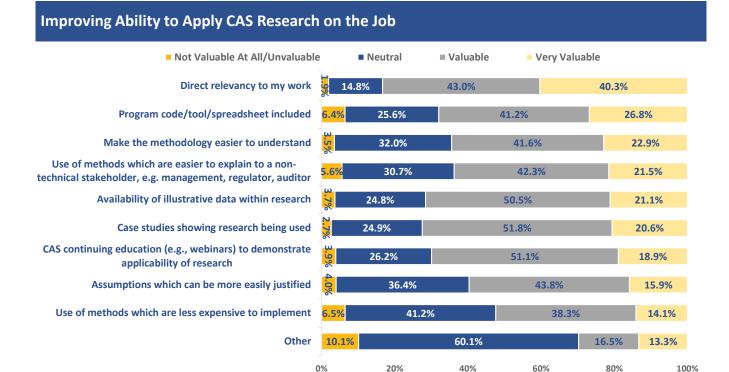
20%

Members are most interested in research on macroeconomic drivers of insurance costs, with 54.2% saying they would like to see more research in that area, followed by deep learning/artificial intelligence (50.1%) and impact of climate change (46.5%).

Additional research into the impact of changes to accounting standards (16.1%) and the impact of changes to solvency regulations (15.7%) are less frequently desired, although approximately four in ten would like to see research in these areas maintained at the same levels they are currently at.



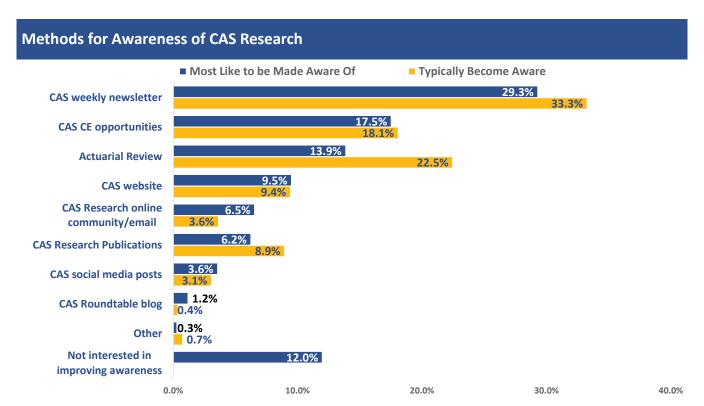
Among those members having an opinion, the demand for research into both the impact of changes to accounting standards and research into the impact of changes to solvency regulations have increased from where they were in 2018. At that time, just over one in six wanted to see more research done in those areas, while the 2023 percentage for both is over one-fifth. There is also a greater demand for research into the macroeconomic drivers of insurance costs, with 67.1% requesting more research in this area compared with 52.3% saying the same five years ago. However, members are less likely to want to see research into InsurTech expanded compared with how they felt five years ago.



More than eight in 10 respondents (83.3%) report that if CAS research had direct relevancy to their work, it would be very valuable or valuable in their ability to apply CAS research to their job. In fact, more than four in 10 (40.3%) indicate that this direct relevancy would be very valuable.

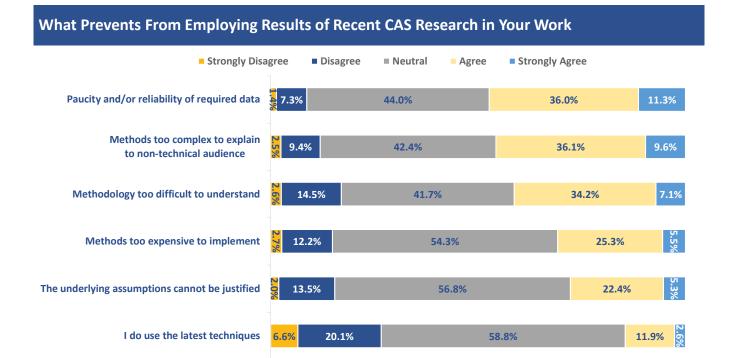
More than one in five say the same (very valuable) about the inclusion of program code/tool/spreadsheet (26.8%), making the methodology easier to understand (22.9%), the use of methods which are easier to explain to a non-technical stakeholder, e.g. management, regulator, auditor (21.5%), the availability of illustrative data within research (21.1%) and case studies showing research being used (20.6%).

Members are least likely to report that the use of methods which are less expensive to implement, or assumptions which can be more easily justified, would be <u>valuable</u> or <u>very valuable</u> to them (52.4 and 59.7%, respectively), with the percentage saying these changes would be <u>very valuable</u> at 14.1% and 15.9%, respectively.



Members say that the primary source for typically making them aware of CAS research is the CAS weekly newsletter (33.3%) and they would like to continue to be made aware by this method most often (29.3%). While 22.5% typically become aware of CAS research via the *Actuarial Review*, just 13.9% would prefer this method to become aware of CAS research, and are more likely to prefer being made aware of CAS research efforts by CAS CE opportunities (17.5%).

A very small proportion would like to learn about CAS research from the *CAS Roundtable blog* (1.2%) or CAS social media posts (3.6%).



The biggest barriers that members face in employing the results of recent CAS research in their work are the paucity and/or reliability of required data, with 47.3% agreeing (agree or strongly agree) that this prevents them from using the research, followed closely by methods too complex to explain to a non-technical audience (45.7%).

40%

60%

80%

100%

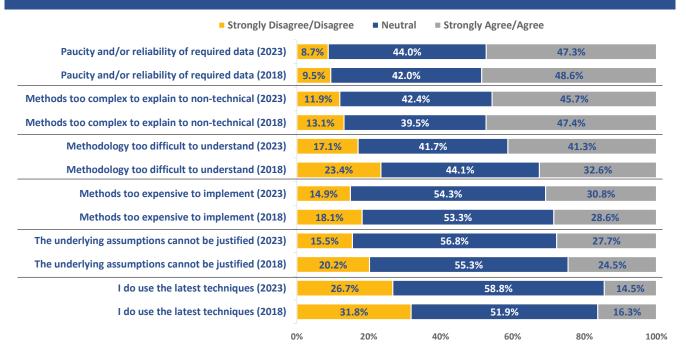
20%

Members are least likely to say that being unable to justify the underlying assumptions prevents them from using CAS research in their work (27.7%).

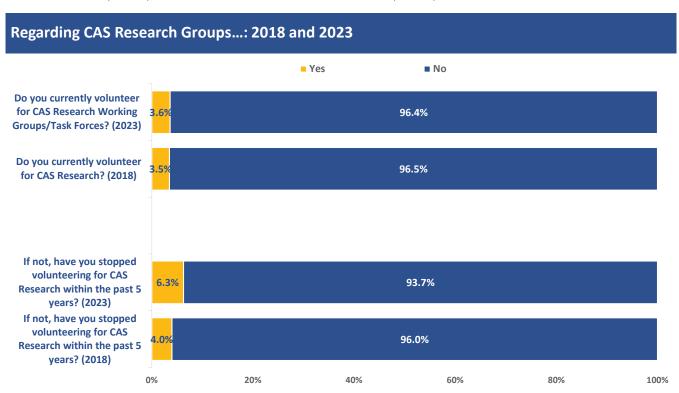
Just 14.5% indicate that they do use the latest techniques.

0%





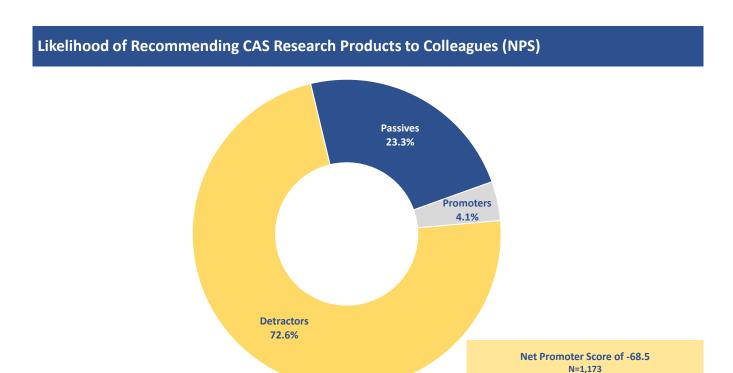
Members are about as likely to identify most of these factors as barriers to employing results of recent CAS research into their work in 2023 as they were in 2018. The only substantive exception is the reason of methodology being too difficult to understand; respondents are more likely to agree or strongly agree that this is a barrier in 2023 (41.3%) versus those who said the same in 2018 (32.6%).



In 2023, just 3.6% of responding members reported volunteering for the CAS research working groups/task forces, about the same percentage who said they volunteered for CAS research in 2018 (3.5%).

However, the proportion of those not volunteering in 2023 who say they have stopped volunteering for CAS research within the past five years is 6.3%, an increase from 4.0% saying the same in 2018.

When posed with the question "If you have stopped volunteering for CAS Research within the past 5 years, what are the contributing factors?", the most common theme of the 51 respondents was related to age, health, family situations, or workload outside of the CAS (61%) and dissatisfaction with the group they were working with (10%).

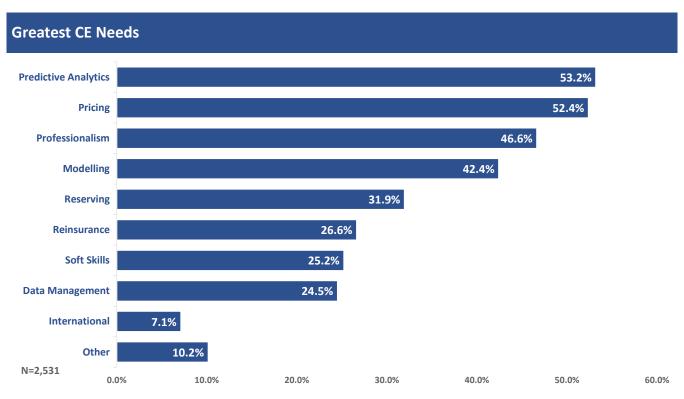


When respondents were asked if they would recommend CAS research products to colleagues, 4.1% provided a rating of 9 or 10 on a scale of 1 to 10, qualifying them as "promoters," while 72.6% provided a rating of 0-6, qualifying them as "detractors." The resulting net promoter score is -68.5.

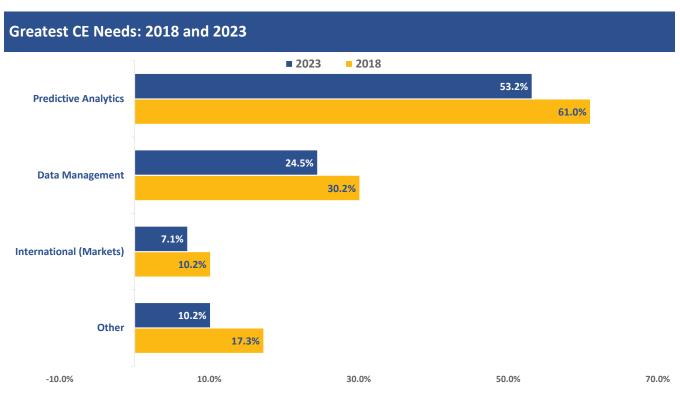
N=1,173

Professional Education

PROFESSIONAL EDUCATION

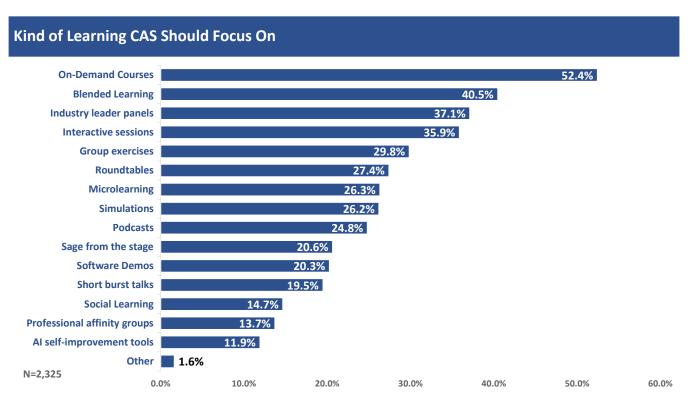


The most pressing continuing education needs for responding members are predictive analytics (53.2%) and pricing (52.4%). However, more than four in 10 say their greatest continuing education need is professionalism (46.6%) or modeling (42.4%). Fewer than one in 10 are interested in international markets (7.1%).



Member needs with regard to continuing education are similar to what they were in 2018, with the greatest demand continuing to be for predictive analytics. However, the proportion indicating a need in all areas that were measured in both waves have slipped since 2018.

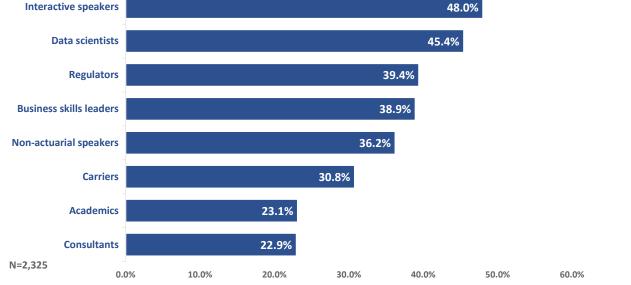
A total of 240 survey respondents (9.8%) suggested "Other" topics for continuing education needs. The topmentioned topics included: bias training (26%), ERM (10%), and emerging risks (10%).



Most often, members say that CAS should focus on on-demand courses (52.4%), followed by blended learning (40.5%). More than one-third think the focus should be on either industry leader panels (37.1%) or interactive sessions (35.9%).

There are relatively low levels of interest in AI self-improvement tools (11.9%), professional affinity groups (13.7%) or social learning (14.7%).





63.7%

70.0%

Members would most like to hear from speakers with diverse experience at future events (63.7%). Interactive speakers are important to 48.0%, with a slightly smaller proportion wanting to hear from data scientists (45.4%).

There is comparably less interest in hearing from consultants (22.9%) or academics (23.1%).

Hours of Continuing Education (CE) Completed in the Last Three Years

	2020 Hours		2021 Hours		2022 Hours	
	Average	Count	Average	Count	Average	Count
Total hours of continuing education						
in CAS organized activities	19.1	1,244	18.9	1,268	18.8	1,385

	2020 Hours		2021 Hours		2022 Hours	
	Average	Count	Average	Count	Average	Count
Total hours of continuing education						
in CAS Non-Organized activities	38.4	1,019	40.2	1,064	39.1	1,126

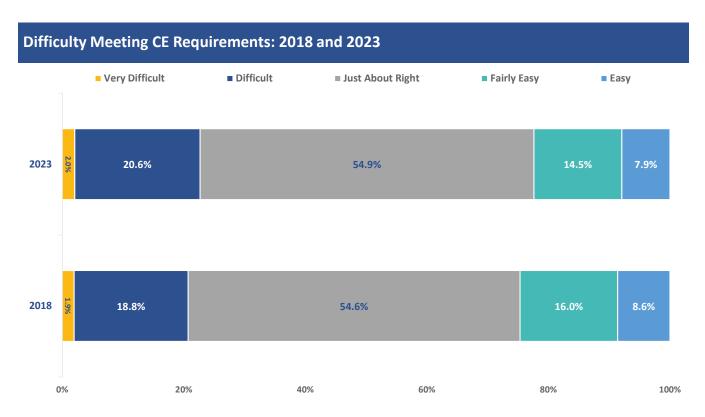
	2020 Hours		2021 Hours		2022 Hours	
	Average	Count	Average	Count	Average	Count
Total hours of continuing education						
in CAS Regional Affiliates	8.5	566	8.8	606	9.3	583

	2020 Hours		2021 Hours		2022 Hours	
	Average	Count	Average	Count	Average	Count
Total hours of continuing education						
in Non-CAS/Other activities	32.5	945	29.7	971	29.5	1,029

On average, members report completing 18.8 hours of CE in 2022 through CAS organized activities (live instruction with interaction with other organizations), a slight dip from 2021 (18.9 hours) but also lower than

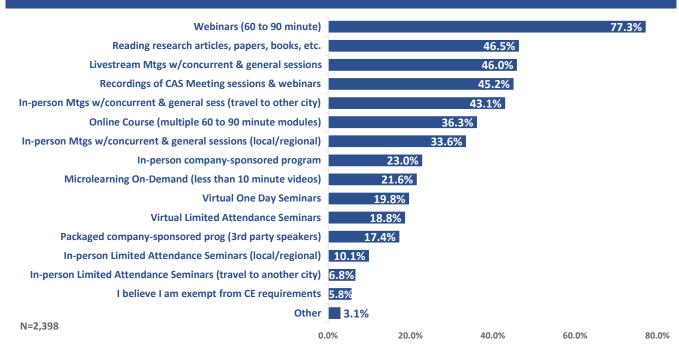
2020 (19.1). A similar pattern is observed for Non-CAS/other activities, with a high of 32.5 hours in 2020 (compared with 29.7 in 2021 and 29.5 in 2022).

Members were most likely to complete CE through CAS non-organized activities in 2021 (40.2) than in 2022 (39.1) or 2020 (38.4). They completed just 9.3 hours of continuing education in 2022 through CAS regional affiliates, but this is a higher average than the average for 2021 (8.8) or 2020 (8.5).



Most members (54.9%) feel the difficulty level in meeting CE requirements is just right, a proportion that is essentially unchanged from 2018 (54.6%). The percentage of respondents saying the requirements are easy (fairly easy or easy–22.4%) or difficult (very difficult or difficult–22.6%) are also similar to the ratings in 2018 (fairly easy or easy–24.6%, very difficult or difficult–20.7%).

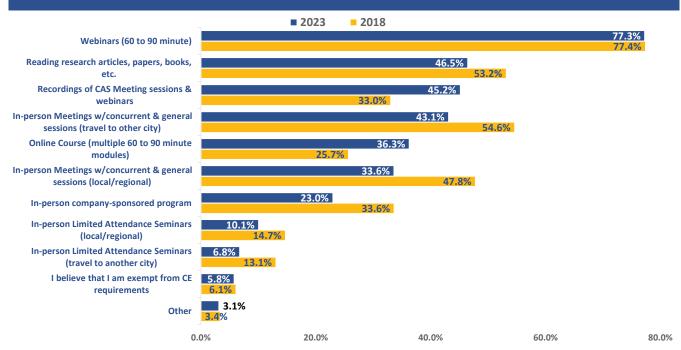




Members widely prefer the webinar format (60 to 90 minutes) for continuing education with 77.3% favoring this option. However, more than four in 10 indicate a preference for reading research articles, papers, books etc., (46.5%), livestream meetings with concurrent and general sessions (46.0%), recordings of CAS meeting sessions and webinars (45.2%) or in-person meetings with concurrent and general sessions that involve travel to another city (43.1%).

A relatively small percentage expresses a preference for in-person limited attendance seminars in which they have to travel to another city (6.8%) or for limited attendance seminars that are held locally/regionally (10.1%).





Webinars (60 to 90 minutes) dominate the preferred format for continuing education in both 2018 and 2023.

Interest in reading research articles, papers, books, etc., has fallen since 2018, as has preference for in-person meetings with concurrent and general sessions involving travel to another city, in-person meetings with concurrent and general sessions held locally or regionally, and in-person company-sponsored programs.

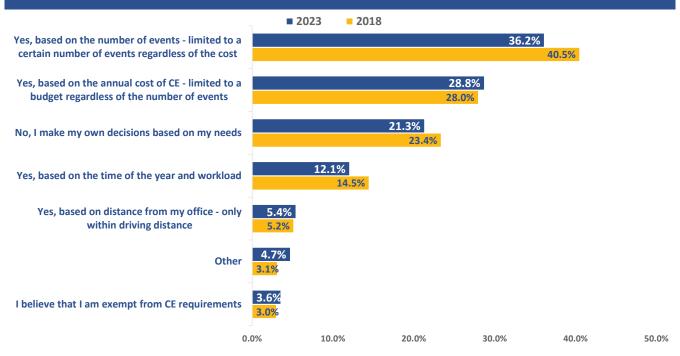
At the same time, there is greater interest than observed in 2018 for recordings of CAS meeting sessions and webinars, and for online courses (multiple 60 to 90 minute modules).



More than one-third of responding members (36.2%) say their employer places limits on face-to-face meeting attendance based on the number of events—limited to a certain number of events regardless of the cost, and 28.8% say the limit is based on the annual cost of continuing education and provide a limited budget regardless of the number of events. Over one-fifth, however, say they make their own decisions based on their needs (21.3%).

Employers are less likely to limit continuing education based on distance from the office—only within driving distance (5.4%), based on whether the member is speaking (7.6%), based on seniority or professional responsibilities (10.0%) or based on the time of year and the workload (12.1%).



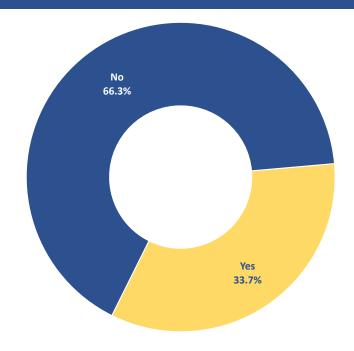


The percentage of members who are limited by the number of face-to-face events they can attend has slipped somewhat from 40.5% in 2018 to 36.2% currently.

A very small number of respondents (3%) suggested "Other" reasons for why their employer limits how many face-to-face events they may attend each year. However, new this year is commentary by some respondents regarding carbon output limits that their companies have established for travel.

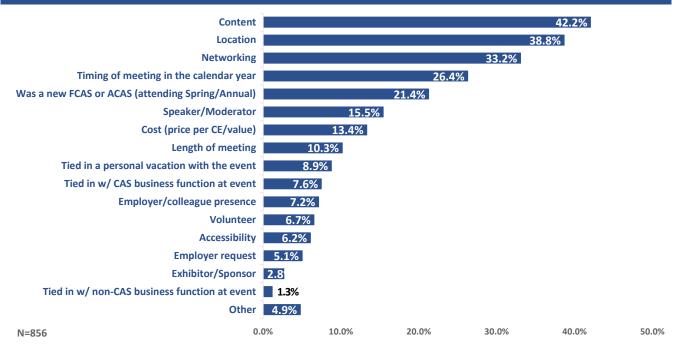
Attended at Least One In-Person CAS Meeting or Seminar in the Last Year

N=2,605



Nearly two-thirds of members have not attended at least one in-person CAS meeting or seminar in the last year.

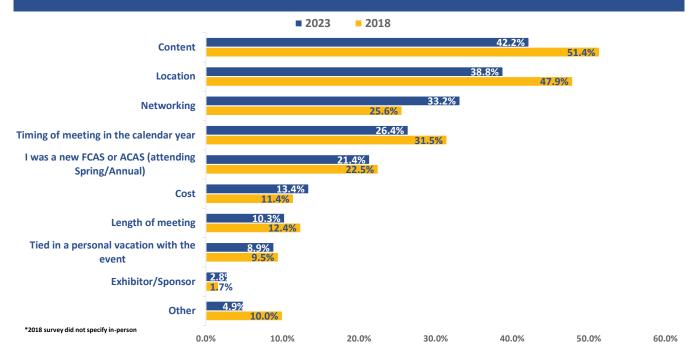




Members most frequently report attending at least one in-person CAS meeting or seminar in the last year as a result of content (42.2%) although location (38.8%) and networking (33.2%) are also often factors. The time of the meeting in the calendar year is important to 26.4% responding members, and 21.4% attended because they were a new FCAS or ACAS.

Factors which tend to rarely influence the decision to attend are if it is tied in with a non-CAS business function at an event (1.3%), an exhibit or sponsor (2.8%), an employer request (5.1%), accessibility (6.2%) or to volunteer (6.7%). Other reasons, such as employer/colleague presence (7.2%), tied in with a CAS business function at an event (7.6%), or tied in personal vacation with the event (8.9%) also are factors for fewer than one in 10.





Members find it is less important to attend for content in 2023 (42.2%) than they did in 2018 (51.4%), and there are similar drops in members attending as a result of location (38.8%, down from 47.9%) and for timing of meeting in the calendar year (26.4%, down from 31.5%). Note that the 2018 survey did not specify that the meetings or seminars were in-person.

In contrast, networking is more important in 2023 (33.2%) than it was in 2018 (25.6%).

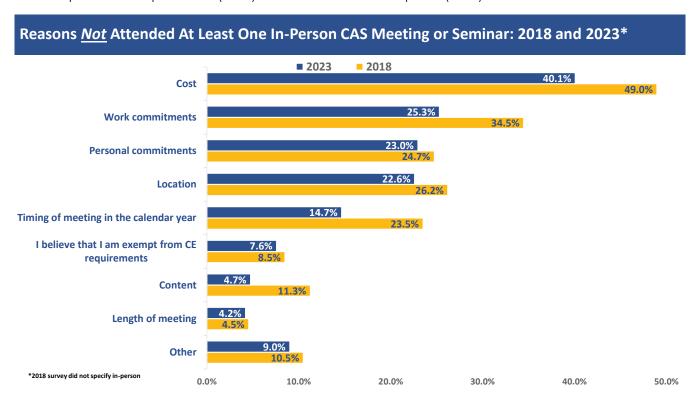




50.0%

The main barrier toward attendance at in-person CAS meetings or seminars is cost, with 40.1% citing this reason. However, approximately one-quarter say they didn't attend as a result of work commitments (25.3%) or employer limitations (24.7%) and more than one-fifth attribute a lack of attendance to personal commitments (23.0%), location (22.6%), and preference for virtual (20.9%).

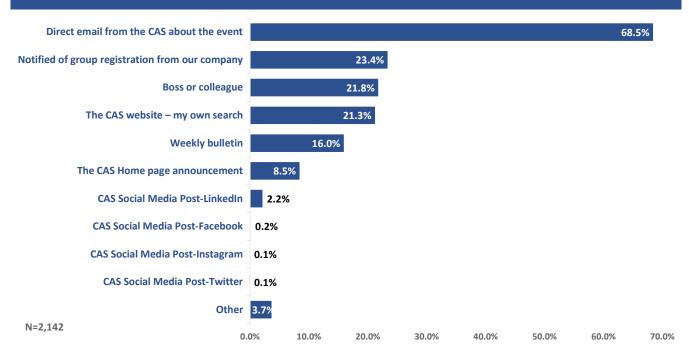
Members are rarely dissuaded from attending based on the length of the meeting (4.2%), accessibility (4.6%), or content (4.7%), and fewer that one in 10 indicate the reason they have not attended is because they believe they are exempt from CE requirements (7.6%) or because of Non-CAS options (7.5%).



While members have not attended at least one in-person meeting or seminar in 2023 for the same reasons they did not attend in 2018, cost, work commitments, location, timing of meetings in the calendar year and content are cited less often than they were at that time. Note that the 2018 survey did not specify that the meetings or seminars were in-person.

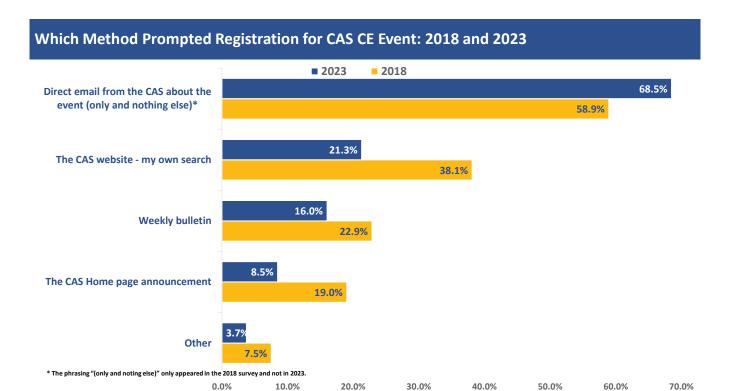
Of those who selected "Other" as their reason for not attending and provided a write-in comment, COVID concerns by individual members or their companies was the most commonly cited reason for not attending in person.





Most often, members are prompted to register for a CAS continuing education event by a direct email from the CAS (68.5%). Just over one-fifth were prompted by notification of group registration for their company (23.4%), their boss or a colleague (21.8%), or their own search on the CAS website (21.3%).

They are very infrequently prompted to attend by social media postings or an announcement on the CAS home page.



Members are more likely to have been prompted by a direct email from the CAS about the event than they were in 2018, and less likely to have been prompted by anything else.

20.0%

50.0%

60.0%

Of those who provided a write-in comment to "Other" as the method that prompted their registration, involvement in the event as a speaker was most commonly cited.

0.0%

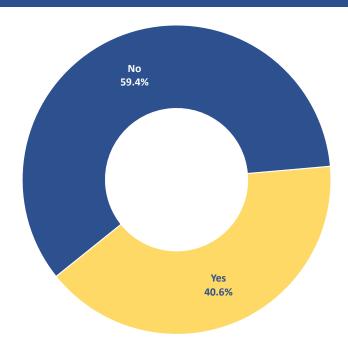
10.0%

Volunteerism

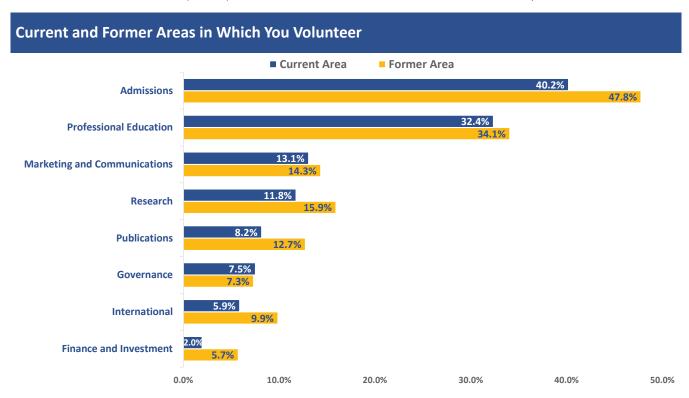
VOLUNTEERISM

Volunteered with the CAS Within the Last 5 Years

N=1,319



Just over four in 10 members (40.6%) have volunteered with the CAS within the last five years.



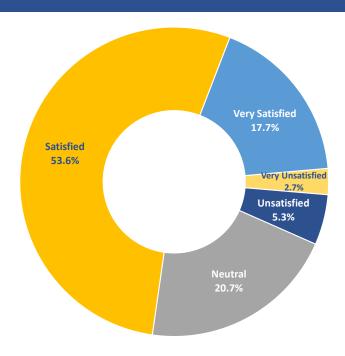
Members are most likely to both currently volunteer (40.2%) and formerly volunteer in admissions (47.8%) or professional education (32.4% currently, 34.1% formerly). Note that members are less likely to be currently

volunteering in admissions than they were formerly (there is also a drop for professional education, but this is a much smaller decline).

There have been other areas of decline in volunteerism when current rates are compared with former, including research (11.8% currently vs. 15.9% formerly), publications (8.2% currently, down from 12.7% formerly), international (5.9% currently, down from 9.9% formerly) and in finance and investment (2.0% currently, compared to 5.7% formerly).

Overall Satisfaction Volunteering for the CAS

N=513

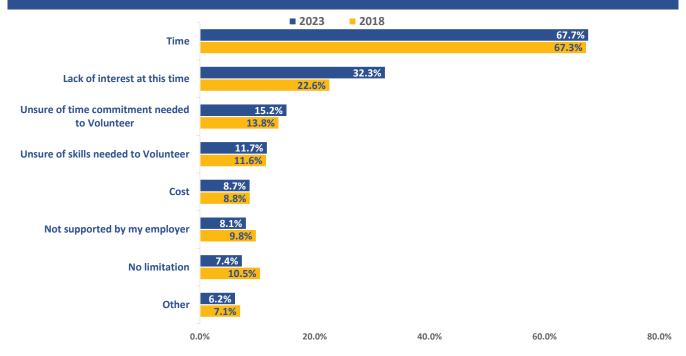


More than half of members (53.6%) are satisfied with their overall experience volunteering with CAS, and 17.7% are very satisfied. While 20.7% are neutral, just 5.3% are unsatisfied and 2.7% are very unsatisfied.

We received 20 comments from those who were unsatisfied or very unsatisfied, with common themes being lack of organization, support or appreciation (40%) and large time commitments (30%).

We received 52 comments from those who were satisfied or very satisfied, with common themes being networking/working with other volunteers or staff (60%), giving back to the organization (27%), and achieving personal goals (12%).





Most often, members are limited from increasing their participation on CAS committees/task forces in 2023 by time (67.7%), essentially the same proportion saying this in 2018. However, nearly one-third say they have a lack of interest in participating (32.2%), up from 22.6% who said the same five years ago.

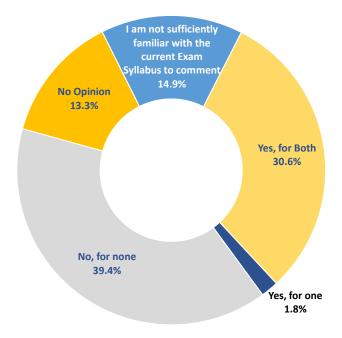
The most commonly recurring themes provided in response to the "Other" category for write-in comments, offered by 74 respondents included:

- Retirement, offered by 16% of write-in respondents.
- Personal commitments to family or health concerns, offered by 15% of write-in respondents.
- Still taking exams, offered by 14% of write-in respondents.

Admissions

ADMISSIONS

The CAS Should Award Exam Credit Based on Performance in Accredited Courses in Universities for Preliminary Exams 1 and/or 2

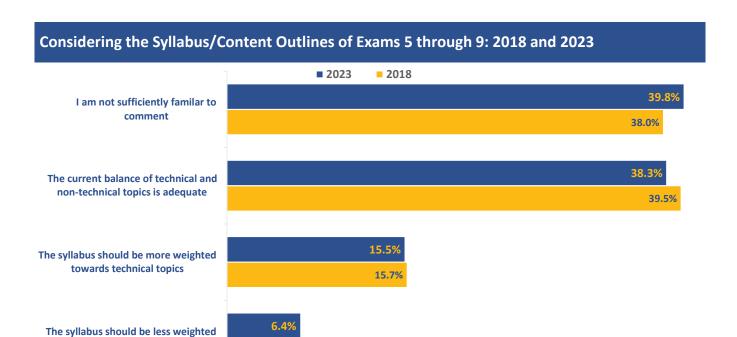


N=2,548

Members are split on the issue of whether the CAS should award exam credits based on performance in accredited courses in universities for preliminary exams 1 and/or 2. While 39.4% say no credit should be given for either preliminary exam, 30.6% say credit should be given for both.

The most commonly recurring themes provided by the 828 people who provided write-in comments for why the CAS should not award exam credit based on performance in accredited courses in universities for preliminary exams 1 or 2 included:

- University standards are not consistent or reliable. There is too much variance in the rigor, grading standards, and course difficulty, offered by 34% of respondents.
- Standardized tests create objective standards that can be measured consistently across all candidates. These standards cannot be consistently created or replicated among universities, and it would be difficult for the CAS to govern them, offered by 34% of respondents.
- The experience of taking the exam is valuable to the candidate and to potential employers, with a variety of specific benefits being cited, offered by 12% of respondents.
- Providing exam credit for certain university courses would create an uneven playing field for both students and universities and is seen as fundamentally unfair. It may also become a barrier to entry into the field for career changers, offered by 9% of respondents.



While nearly four in 10 (39.8%) members say they are not sufficiently familiar with the syllabus/content outlines of exams 5 through 9, a proportion nearly as large reports that the current balance of technical and non-technical topics is adequate (38.3%). Member responses are very similar to those that were recorded in 2018.

20.0%

30.0%

40.0%

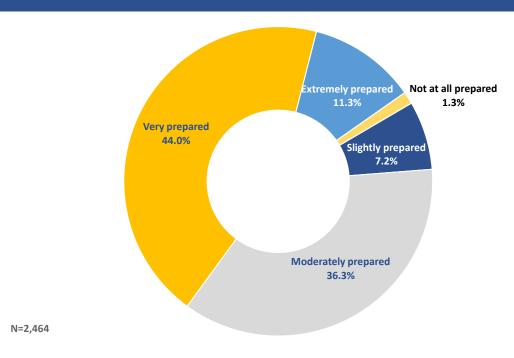
10.0%



6.8%

0.0%

towards technical topics



More than four in 10 members say that as a candidate, they felt very prepared after completing a CAS exam (44.0%), and 36.3% say they felt moderately prepared. More than one in 10 (11.3%) felt extremely prepared.

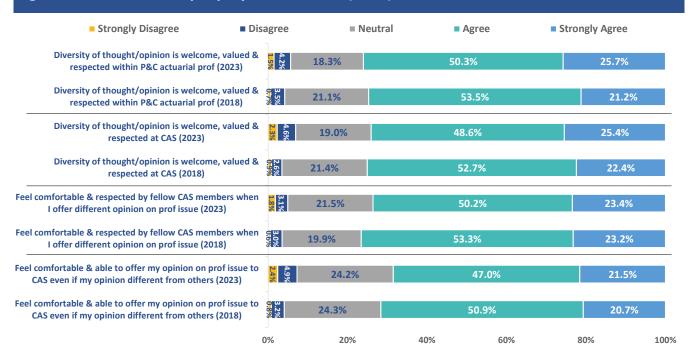
Written responses regarding what topics should be considered for addition to Exams 5 through 9 were provided by 16% of survey respondents. One overarching theme was a distinction between 'technical actuaries' and 'business actuaries.' For the technical actuarial training the responses stressed the importance of predictive modeling and artificial intelligence, programming languages, data management and engineering, data science and data/functional (non-pricing) models, and software/tool development. The business actuaries emphasized practical applications of actuarial skill sets, emphasizing insurance business expertise from a variety of different perspectives, advanced ratemaking and reserving skills, applications to ERM and capital modeling, considerations of bias, and climate change. The most commonly recurring themes were:

- Predictive Modeling/Advance Analytics/Artificial Intelligence/Machine Learning, identified in 32% of write-in comments.
 - O Details ranged from material on leveraging AI and ML or Chat GPT in developing pricing and other models, to leveraging a variety of modeling techniques beyond GLM, to evaluating predictive models and ultimately implementing them and measuring their impact. Advanced analytics in general related to more statistical rigor in evaluating business performance.
- Insurance Business Expertise/Problem Solving/Communication/Soft Skills/Data Visualization, identified in 17% of write-in comments.
 - o The common theme across these categories was putting a stronger emphasis on the actuary as a business leader. Topics that appeared with frequency in this category included, how to convey technical material to non-technical audiences and/or regulators, data visualization, how to effectively support underwriting (discretionary pricing and risk selection) and other functions, and having a clear understanding of how insurance companies work. In general, respondents were looking to evaluate candidates' abilities to problem solve and apply technical actuarial concepts to real world business problems, and then effectively communicate their conclusions and recommendations to business leaders.
- Advanced Ratemaking and Specialized Products, identified in 11% of write-in comments.
 - o Respondents recommended the syllabus expand to incorporate more on specialized lines of business beyond personal/commercial auto, homeowners, workers compensation, general liability and commercial property. Cyber was most frequently mentioned, but responses included most other annual statement lines of business. Along with the variety of lines of business, respondents were also looking for additional content around advanced ratemaking topics, such as experience rating, territorial development and analysis, class plan analysis, retro rating, deductible applications, and rating with minimal data. Some of these comments related to material that has been removed or deemphasized in the syllabus in recent years.

Diversity, Equity, and Inclusion (DE&I)

DIVERSITY, EQUITY, AND INCLUSION (DE&I)

Agreement with Diversity, Equity and Inclusion (DE&I) Statements: 2018 and 2023

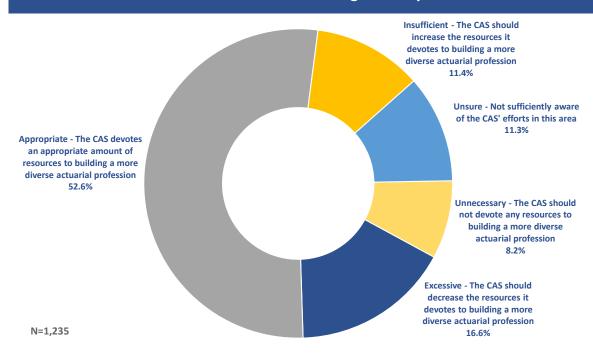


More than three-quarters of members are in agreement (agree or strongly agree) that diversity of thought or opinion is welcomed, valued and respected within the P&C actuarial profession (76.0%). A slightly smaller proportion agree or strongly agree that diversity of thought or opinion is welcomed, valued and respected at the CAS (74.1%), and that they feel comfortable and respected by their fellow CAS members when they offer a different opinion or perspective on a professional issue (73.6% agree or strongly agree).

Members are somewhat less likely to agree or strongly agree that they feel comfortable and able to offer their opinion on a professional issue to the CAS even if their opinion is different from all others (68.5%).

Overall, these findings have not changed appreciably since 2018.

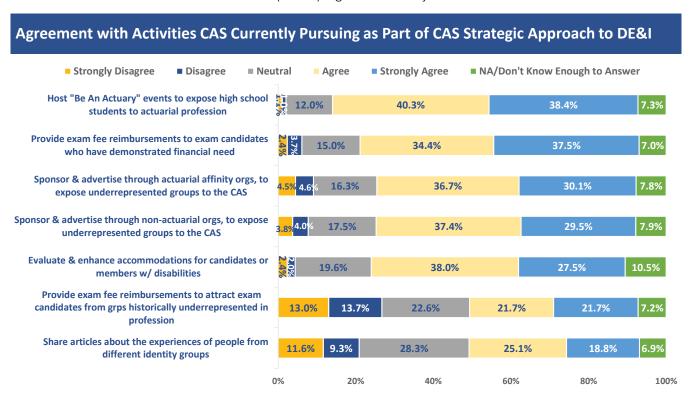
How Would Describe the CAS's Efforts at Building Diversity in the Actuarial Profession



More than half of members (52.6%) indicated that the CAS' efforts at building diversity in the actuarial profession are appropriate. However, there is some disagreement among the remainder of the membership; 16.6% reported that these efforts are excessive, 11.4% say they are insufficient, 11.3% are unsure (they do not feel sufficiently aware of the CAS' efforts in this area), and 8.2% consider these efforts as unnecessary.

Agreement with Tactics of CAS Currently Adopted Strategic Approach to DE&I Strongly Disagree ■ Disagree ■ Neutral Agree Strongly Agree Listen to those who best understand challenges impacting 23.4% 43.3% 24.8% their comms to develop solutions to inc rep & inclusion Increase financial accessibility of our credentialling program 3.6% 6.6% 37.0% 28.0% 24.7% Advance the body of knowledge of P&C actuarial prof through 6.1%5.6% 25.0% 38.8% 24.5% research & ed on issues of unintended bias in insurance Narrow gaps in awareness of actuarial prof & access to role 4<mark>.1%</mark> 4.8% 26.0% 42.8% 22.2% models impacting underrepresented grps Encourage equal opps for members to develop & advance to 2.752 3% 26.5% 46.4% 22.1% leadership within CAS volunteer roles Set goals for improved awareness of prof in US as measured **6.1%** 7.5% 40.4% 20.0% by distr of students early to support accountability Work closely w/ int'l partners in support of diversity & 8.2% 37.4% 31.3% 15.0% inclusion efforts outside of US Offer optional CE for general business skills related to 10.4% 30.5% 14.4% 34.5% diversity equity & inclusion 0% 20% 40% 60% 80% 100%

At least six in 10 members agree (agree or strongly agree) with most of the tactics that the CAS adopted in its strategic approach to DE&I. On two tactics—offer optional continuing education for general business skills related to diversity, equity, and inclusion (48.9%) and work closely with international partners in support of diversity and inclusion efforts outside of the United States (46.3%)—agreement falls just below 50%.



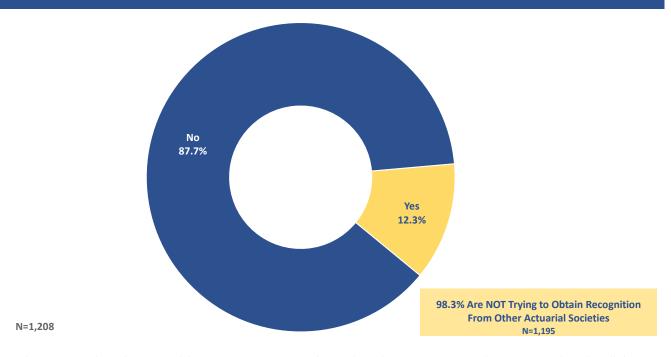
Members most often agree (agree or strongly agree) with the tactic of hosting "Be An Actuary" events to expose high school students to the actuarial profession, with 78.7% saying so, followed by providing exam fee reimbursements to exam candidates who have demonstrated financial need (71.9%). Approximately two-thirds voice the same opinion about the tactics of sponsoring and advertising through non-actuarial organizations, to expose underrepresented groups to the CAS (66.9%), sponsoring and advertising through actuarial affinity organizations, to expose underrepresented groups to the CAS (66.8%), and evaluating and enhancing accommodations for candidates or members with disabilities (65.5%).

Members are least likely to agree (agree or strongly agree) with the tactic of sharing articles about the experiences of people from different identity groups (43.9%), or providing exam fee reimbursements to attract and encourage exam candidates from groups historically underrepresented in the profession (43.4%). The latter program has been recently discontinued.

International

INTERNATIONAL

Have Recognition From an Actuarial Society Other Than the CAS, CIA, AAA, or IAA



Based on respondents' CAS qualifications, just 12.3% of members have recognition (at an equivalent level) from one or more actuarial societies other than the CAS, CIA, AAA, or IAA; 98.3% are <u>not</u> trying to obtain recognition from other actuarial societies.

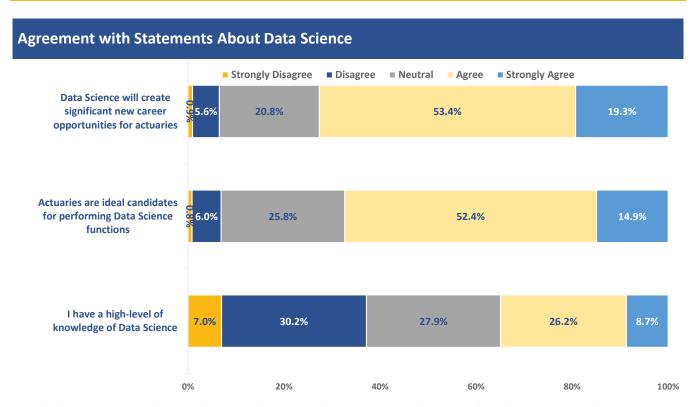
Of the 12.3% that responded yes to recognition from one or more actuarial societies other than the CAS, CIA, AAA, or IAA, there were 154 write in responses. These other actuarial societies include, but are not limited to, the Society of Actuaries, the Institute and Faculty of Actuaries, the Singapore Actuarial Society, the Actuarial Society of Malaysia, the China Association of Actuaries, the New Zealand Society of Actuaries, and the Actuarial Institute of China Taipei.

There were 233 responses to the question about the advantages of CAS training over available global alternatives. After a review of these responses, it is clear that several themes emerge as the most common: the CAS focuses exclusively on P/C insurance (28%), the CAS provides high quality training and rigorous exam sequence (26%), the CAS and the credentials are well respected and recognized in the industry (18%), the CAS has expertise and breadth of knowledge (16%), and the CAS is a US based organization (8%)

When asked about the limitations of CAS training over global alternatives, there were 208 write in responses. The largest portion of the comments (28%) mention that the CAS is US Centric. Other common themes include how long it takes to obtain the CAS credential (6%) and having to specialize early in one's career (4%).

Data Science

DATA SCIENCE

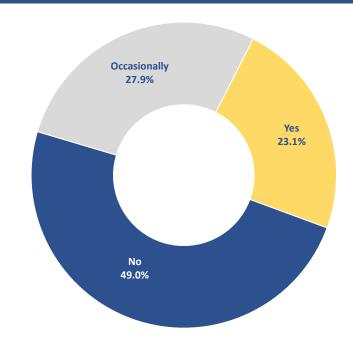


Nearly three-quarters of responding members agree (agree or strongly agree) that data science will create significant new career opportunities for actuaries (72.7%) and nearly seven in 10 agree that actuaries are ideal candidates for performing data science functions (67.3%).

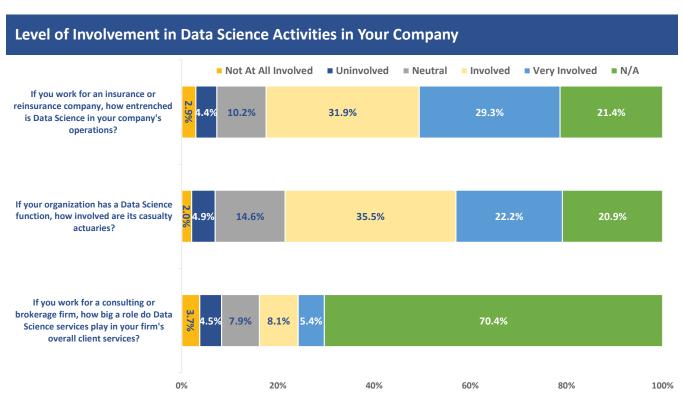
However, just 34.9% agree (agree or strongly agree) that they have a high-level of knowledge about data science. In fact, members are more likely to disagree with this statement (30.2%) than they are to agree (26.2%). Additionally, 7.0% strongly disagree, only a slightly smaller percentage than those who strongly agree (8.7%).

Directly Involved in Data Science Activities in Your Company

N=1,186



Nearly half of members (49.0%) say they are not directly involved in data science activities in their company. While 23.1% say they are involved in such activities, 27.9% say they are involved on an occasional basis.



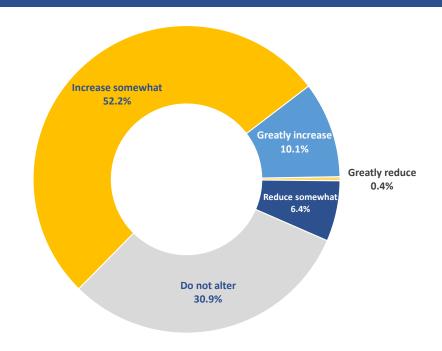
Approximately three in 10 members who work for an insurance or reinsurance company report their company is involved in data science activities (31.9%), although a proportion nearly as large (29.3%) say it is very involved.

Of those employed by a consulting or brokerage firm, just 8.1% say data science services are involved in their firm's overall client services, with only 5.4% saying it is very involved.

Over one-third of respondents indicates that their casualty actuaries are involved in their company's data science function (35.5%), and more than one-fifth (22.2%) say their casualty actuaries are very involved in this function.

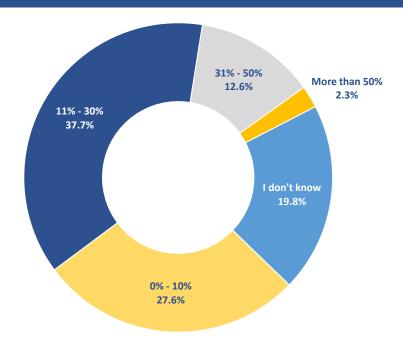
CAS Should Alter its Current Emphasis on Data Science

N=1,160



More than half of members (52.2%) say that CAS should increase somewhat its current emphasis on data science, although 30.9% say this emphasis should not be altered. Just 10.1% say it should be greatly increased, and 6.4% say it should be reduced somewhat.

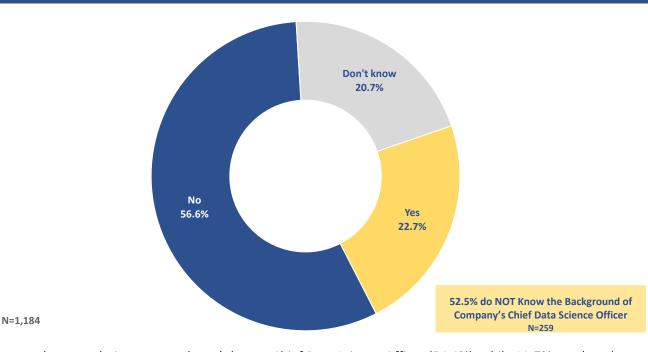
Percent of Time, in Aggregate, Actuaries at Company Spend on Data Science



Responding members are most likely to say the actuaries in their company spend 11%-30% of their time on data science (37.7%), 27.6% say actuaries in their company spend 0%-10% of their time in this area, while 12.6% say actuaries in their company are involved with data science 31%-50% of their time. Approximately one-fifth reported that they did not know the percentage of time spent by actuaries at their companies on data science.

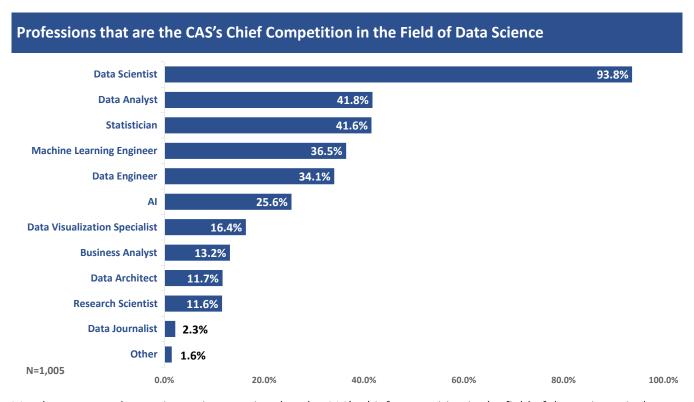
Company Has a Chief Data Science Officer

N=1,167



Most members say their company doesn't have a Chief Data Science Officer (56.6%), while 22.7% say they do.

Among those who said their company does have someone in this role, more than half (52.5%) do not know the background of the Chief Data Science Officer at their company.



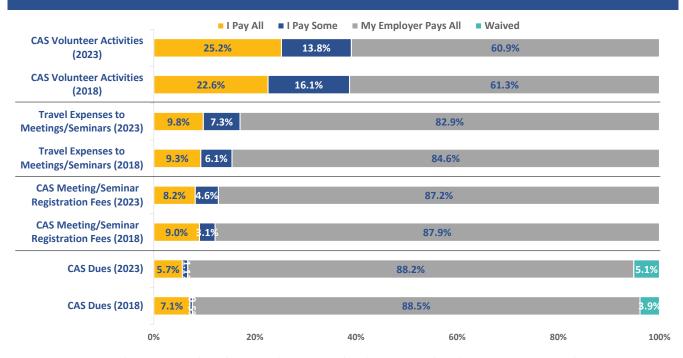
Members are nearly unanimous in reporting that the CAS's chief competition in the field of data science is the data scientist (93.8%). However, 41.8% also reported that the CAS's chief competition in this field is the data analyst, and 41.6% says it is the statistician.

Members are very unlikely to view the data journalist (2.3%) as the CAS's chief competition, and they are also relatively unlikely to view the research scientist (11.6%), data architect (11.7%), business analyst (13.2%) or the data visualization specialist (16.4%) this way either.

Administration

ADMINISTRATION

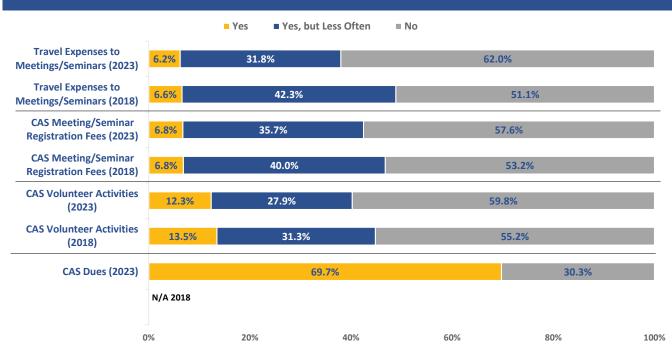




In most cases, members report that their employer pays for their CAS-related costs. However, when it comes to CAS volunteer activities, 25.2% of members say they pay all of their costs, and 13.8% say they pay for some of these costs.

The responsibility for the different categories of CAS-related costs is fairly similar to what was observed in 2018.

If Had To Pay For Yourself, Would You...: 2018 and 2023



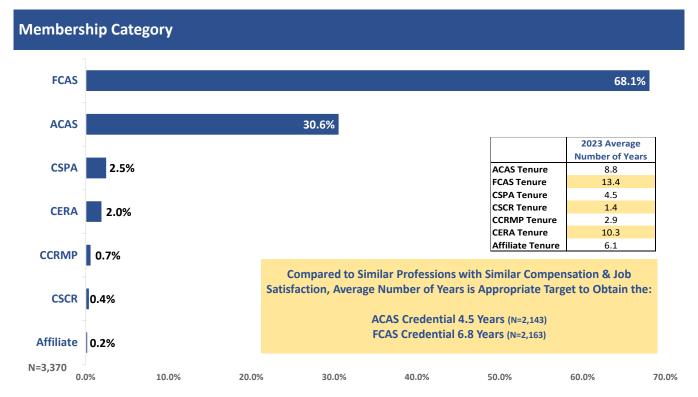
When it comes to travel expenses to CAS meetings/seminars, CAS meeting/seminar registration fees, and CAS volunteer activities, members most often say they would be unwilling to pay for all of these costs if they were asked to. For CAS meeting/seminar registration fees, 35.7% would be willing to pay for these, but would do so less often. A somewhat smaller proportion (31.8%) say the same about travel expenses to CAS meetings/seminars, and 27.9% make the same qualification about CAS volunteer activities.

Notably, the proportion saying they would not be willing to pay these costs themselves if they were asked to has increased for all of these activities since 2018, while the percentages who would assume these costs themselves, but less often, has declined.

However, CAS dues is the exception to these rules; most members (69.7%) in 2023 would be willing to shoulder this cost themselves.

Demographics

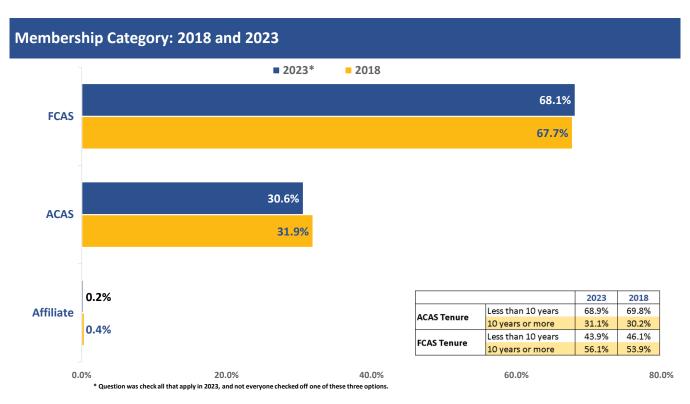
DEMOGRAPHICS



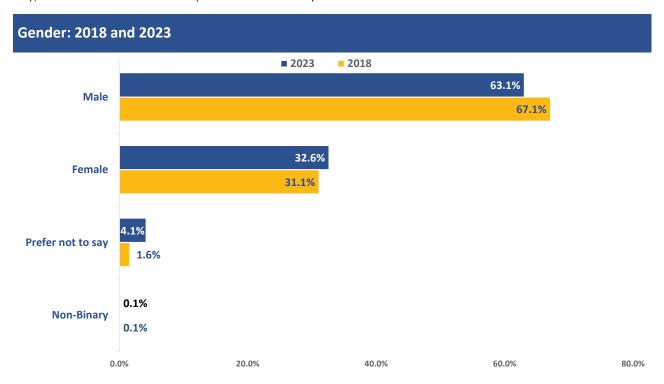
More than two-thirds (68.1%) of responding members are designated as an FCAS and 30.6% have earned an ACAS certification. Just 2.5% of members report having a CSPA certification, 2.0% have a CERA certification, 0.7% are CCRMP-certified and 0.4% have been certified as a CSCR. A very small percentage (0.2%) are affiliates.

The average FCAS-certified member has 13.4 years of tenure, and the average ACAS-certified member has 8.8 years of tenure. CERA-certified members report an average tenure of 10.3 years, while members with other certifications report averages of less than five years. The average affiliate tenure is 6.1 years.

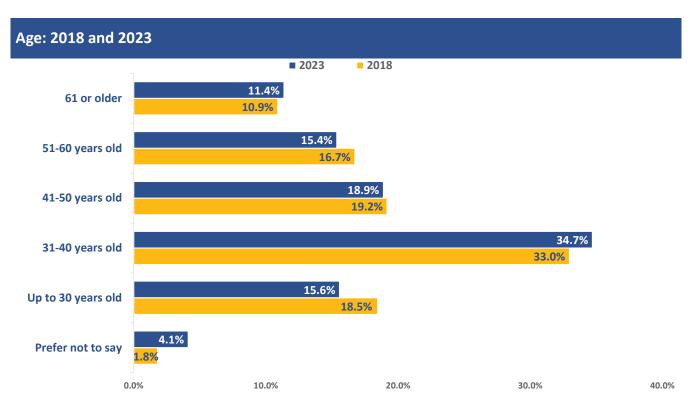
Members believe that compared to similar professions with similar compensation and job satisfaction, the average number of years it should take to earn the ACAS credential should be 4.5 years, with 6.8 being the target average number of years to earn the FCAS credential.



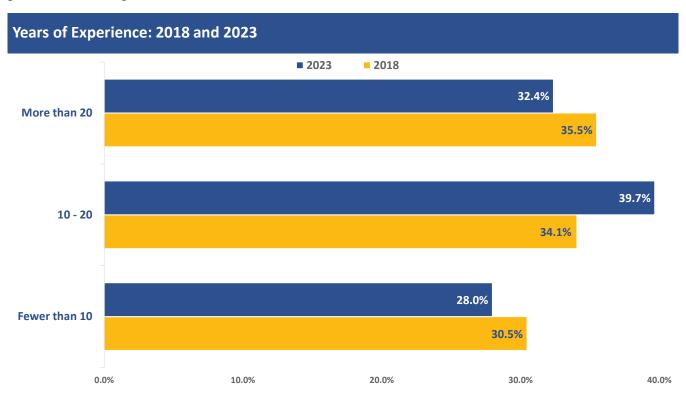
FCAS- and ACAS-certified members are represented at roughly the same proportions as they were in the 2018 survey, and have similar tenure representation as they did at that time as well.



Nearly two-thirds of members are male (63.1%), somewhat less than the 67.1% who said the same in 2018.



As was observed in 2018, the largest representation of members by age is 31-40 years old (34.7% in 2023). In general, the 2023 age distribution of members is similar to what it was in 2018.

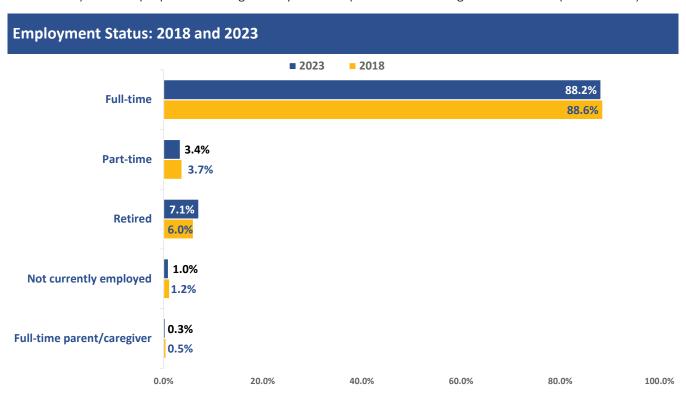


In 2023, 39.7% of responding members have 10-20 years of experience, up from 34.1% in 2018. Just under one-third (32.4%) have more experience and 28.0% have less.

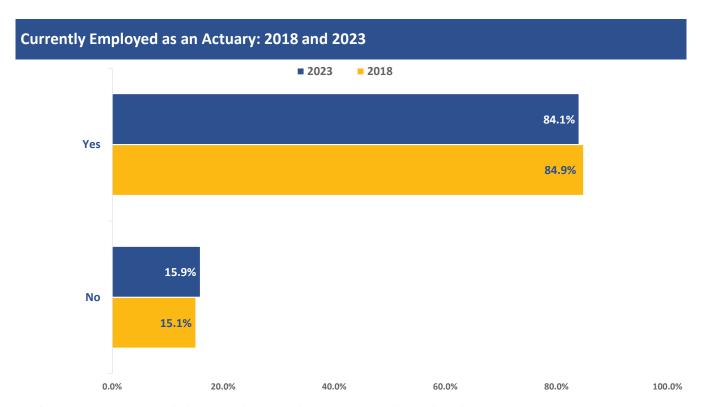
Years of Experience in the Property and Casualty (P&C) Actuarial Field: 2013 to 2023

	2023	2018	2013
Fewer than 10	28%	31%	26%
10 – 20	40%	34%	34%
More than 20	32%	36%	40%

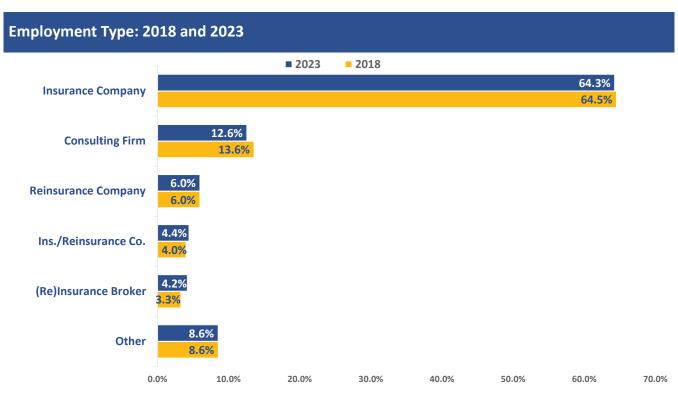
Members are less likely to have more than 20 years of experience than they were 10 years ago (32% in 2023 vs. 40% in 2013) with the proportion having 10-20 years of experience increasing since that time (40% vs. 34%).



The vast majority of members, as was observed in 2018, are in full-time employment.



Furthermore, approximately five out of six members are currently employed as an actuary.

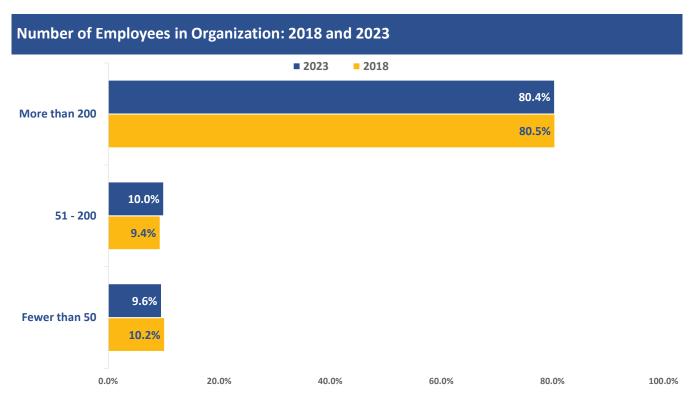


Nearly two-thirds of members in 2023 are employed by insurance companies, a percentage nearly identical to that observed in 2018.

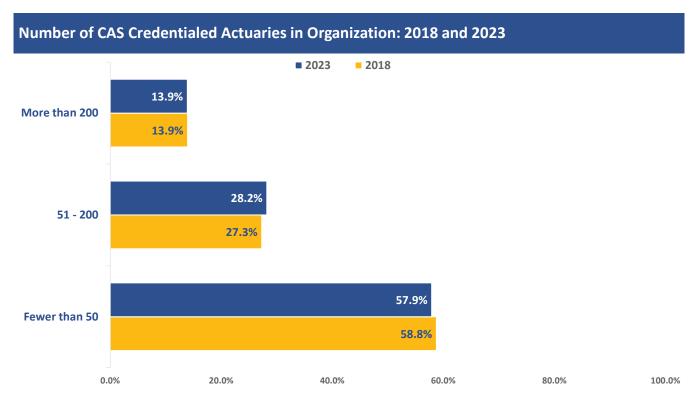
Employment Type: 2003 to 2023

	2023	2018	2013	2008	2003
Insurance company	64.3%	64.5%	61.9%	54%	55%
Consulting firm	12.6%	13.6%	15.1%	18%	16%
Reinsurance company	6.0%	6.0%	8.3%	9%	14%
Insurance and reinsurance company	4.4%	4.0%	3.6%	3%	N/A
(Re)Insurance broker	4.2%	3.3%	3.6%	4%	2%
Service organization	2.9%	3.1%	2.3%	3%	2%
Regulatory/government organization	1.6%	2.2%	2.3%	2%	3%
Rating agency	0.7%	0.6%	0.6%	1%	N/A
Academic	0.4%	0.6%	0.5%	0%	0%
Retired	N/A	N/A	N/A	3%	3%
Other financial institution	0.6%	0.5%	0.8%	1%	N/A
Other	2.3%	1.5%	1.0%	2%	5%

Members employed by insurance companies have comprised the largest member segment in each wave since 2003.



Eight in 10 members report having more than 200 employees in their organization, the same as in 2018.



Nearly six in 10, however, report that their organization employs fewer than 50 CAS credentialed actuaries.

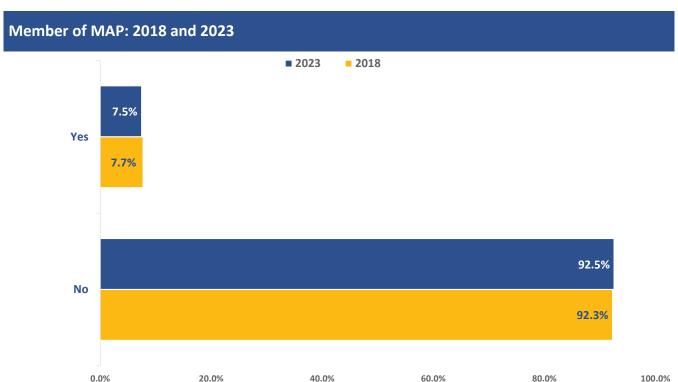


Approximately eight in 10 members are located in the United States, roughly consistent with the proportion observed in 2018.

Physical Location Primarily in the US: 2008 to 2023

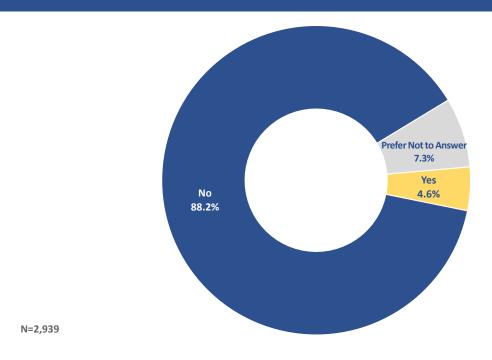
States	2023	2018	2013	2008	Region	2023	2018	2013
Illinois	13.1%	11.0%	12.5%	13.0%	Northeast	37%	42%	44%
Connecticut	9.1%	8.6%	11.0%	12.0%	North Central	34%	32%	30%
New York	8.2%	8.7%	9.7%	11.0%	South	16%	14%	14%
California	7.8%	6.9%	8.2%	7.0%	West	13%	12%	13%
New Jersey	6.8%	6.7%	7.1%	9.0%				
Pennsylvania	6.0%	5.5%	5.5%	6.0%				
Massachusetts	5.2%	5.6%	6.6%	6.0%				
Ohio	5.2%	4.3%	4.5%	3.0%				
Minnesota	4.4%	3.3%	4.5%	3.0%				
Texas	4.1%	3.5%	3.3%					
Wisconsin	4.1%	3.0%	3.6%	4.0%				

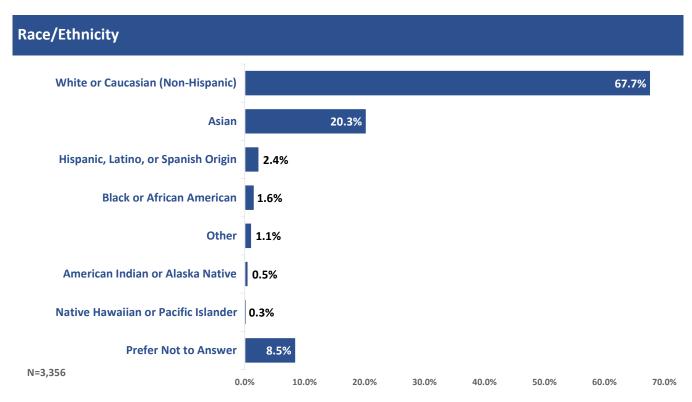
Members are most often located in the Northeast (37%) or North Central (34%) regions.



The vast majority of members are not Member Advisory Panelist (MAP) members; just 7.5% claim to have this membership.

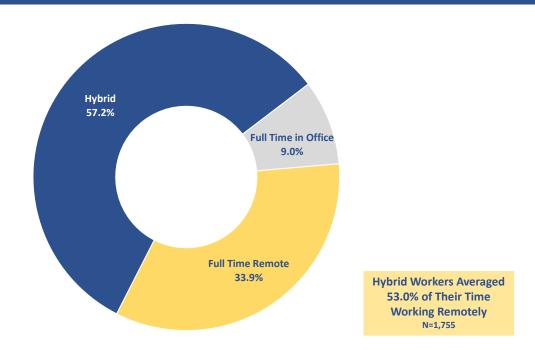
Identify as a Member of the LGBTQ+ Community





Just over two-thirds of members (67.7%) are White or Caucasian (Non-Hispanic), and 20.3% classify themselves as Asian.

Currently Full Time Remote, Hybrid, or Full Time in Office



More than half of members (57.2%) are working in a hybrid situation; on average, these members spend 53.0% of their time working remotely. Another one-third (33.9%) are fully remote; 9.0% are in their office full time.

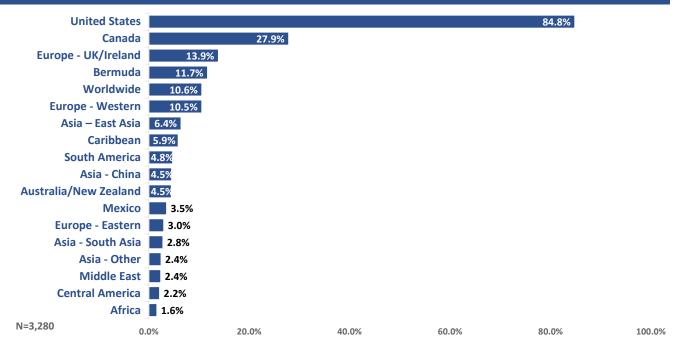
Geographic Area of Significant Business Responsibility: 2008 to 2023

N=3,139

	2023*	2018	2013	2008
United States	81%	83%	89%	89%
Canada	20%	18%	14%	15%
Europe	10%	13%	13%	13%
- Eastern	1%	2%	2%	3%
- Western	4%	5%	5%	11%
- UK & Ireland	5%	6%	6%	
Bermuda	5%	6%	6%	10%
Caribbean	3%	3%	3%	3%
Central America	1%	1%	1%	
Mexico	1%	1%	2%	3%
Asia* (change in categories in 2023)	7%	10%	9%	7%
- China	2%	3%	2%	3%
- South Asia (India)	1%	1%	1%	2%
 East Asia (Japan and Singapore) 	3%	1%	2%	3%
- Singapore		2%	2%	3%
- Other	1%	3%	2%	4%
South America	2%	2%	2%	4%
Australia & New Zealand	2%	2%	2%	4%
Africa	1%	1%	1%	1%
Middle East	1%	1%	1%	1%

Most members (81%) have significant business responsibilities in the United States in 2023.





Most members (84.8%) have had significant business responsibilities in the United States during their career.

Other Actuarial Organization Membership: 2008 to 2023

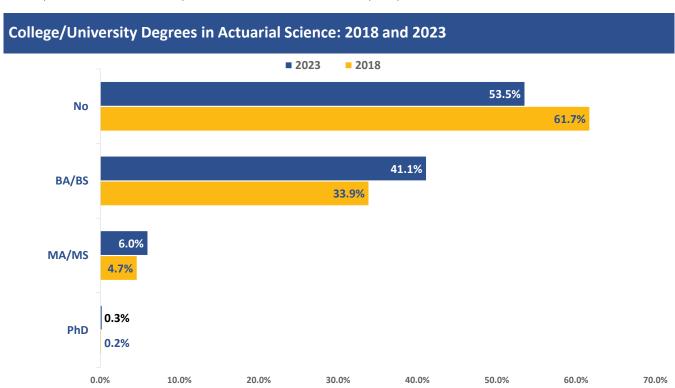
	2023	2018	2013	2008
American Academy of Actuaries (AAA)	71%	81%	88%	72%
Canadian Institute of Actuaries	21%	16%	11%	6%
Faculty/Institute of Actuaries	1%	2%	2%	
ASTIN	3%	3%	4%	5%
AFIR	1%	1%	1%	2%
Society of Actuaries	5%	6%	4%	4%

Responding members are most often also members of the American Academy of Actuaries (AAA) (71%). This proportion is lower than reported in 2018 (81%) and 2013 (88%) but is similar and slightly lower than it was in 2008 (72%). In contrast, 21% have membership in the Canadian Institute of Actuaries, and this proportion has steadily increased since 2008 when it was 6%.

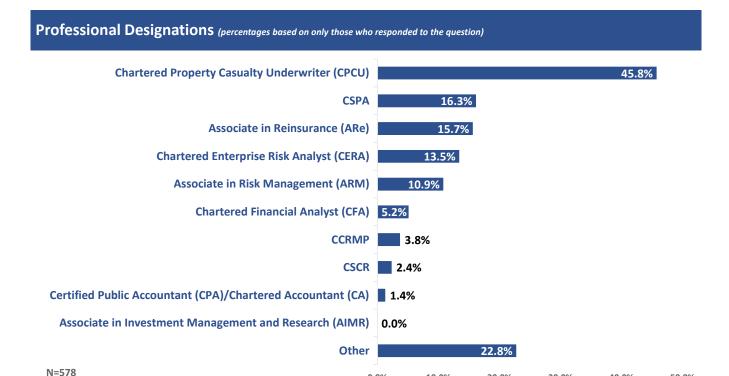
Highest Level of Academic Education: 2013 to 2023

	2023*	2018	2013
BA/BS	74%	74%	72%
MA/MS/MBA*	22%	19%	19%
MBA* (combined w/above for 2023)		4%	5%
PhD	3%	3%	4%
Other	1%	1%	0%
JD	0%	0%	0%

Most often, the highest level of education that members have achieved is their BA/BS (74%), although over one-fifth reported in 2023 that they have earned an MA/MS/MBA (22%). Just 3% have earned a PhD.



Over half of responding members have not earned a degree in actuarial science (53.5%), but this proportion is lower than it was in 2018 (61.7%). Since that time, members are more likely to have earned a BA/BS in the field of actuarial science (41.1% in 2023 versus 33.9% in 2018).



Of those members who responded to the question of professional designations they have, most have the Chartered Property Casualty Underwriter designation (CPCU), with 45.8% saying so. More than one in 10 who answered this question have a CSPA designation (16.3%), an Associate in Reinsurance (ARe - 15.7%), Chartered Enterprise Risk Analyst (CERA – 13.5%), or an Associate in Risk Management designation (ARM – 10.9%).

0.0%

10.0%

20.0%

30.0%

40.0%

50.0%

Professional Designations: 2013 to 2023

	2023	2018	2013
Associate in Reinsurance (ARe)	3%	3%	3%
Associate in Risk Management (ARM)	2%	2%	2%
Associate in Investment Management and Research (AIMR)	0%	0%	0%
Chartered Financial Analyst (CFA)	1%	1%	2%
Certified Public Accountant (CPA) / Chartered Accountant (CA)	0%	0%	0.5%
Chartered Property Casualty Underwriter (CPCU)	8%	8%	7%
Chartered Enterprise Risk Analyst (CERA)	2%	3%	4%
CSPA	3%		
CSCR	0%		
CCRMP	1%		
Other	4%	5%	3%

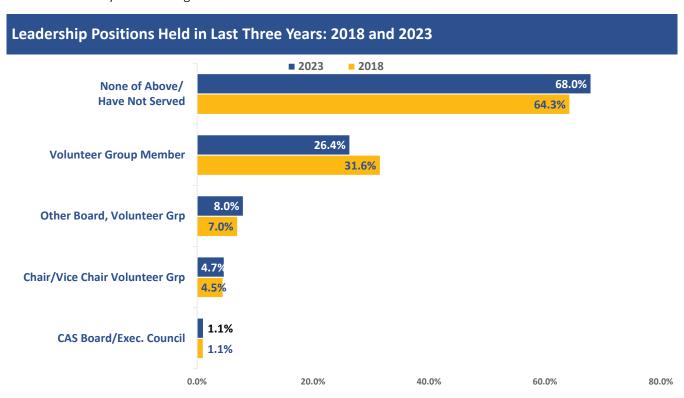
Percentages figured using a base of all survey respondents

Of all survey respondents, 8% have received the Chartered Property Casualty Underwriter designation; at 8%, this is the same proportion that had this designation in 2018.

Areas of Practice, Career and % of Time Spent in Past Two Years: 1998 to 2023

Area of Practice	Career as of 2023	2023 Time Spent	2018 Time Spent	2013 Time Spent	2008 Time Spent	2003 Time Spent	1998 Time Spent
Pricing / Ratemaking	88%	29.3%	26.5%	27.6%	27%	29%	23%
Reserving	68%	17.7%	18.6%	20.5%	23%	21%	19%
Subtotal Ratemaking and Reserving		47.0%	45.1%	48.1%	50%	50%	42%
Management of Actuarial Unit	46%	8.5%	8.9%	11.3%	11%	11%	13%
Planning – Strategic and Financial	41%	3.9%	3.6%	4.2%	4%	5%	7%
Product Development	37%	2.9%	3.4%	3.2%	3%		
Predictive Analytics (Modeling)	41%	7.3%	6.8%	5.9%	5%		
Reinsurance	35%	5.6%	5.7%				
Programming/Software Development	26%	2.4%	2.4%	2.1%	2%	3%	4%
Underwriting/Marketing	15%/7%	1.7%	1.7%	2.5%	3%	5%	7%
Executive Management	18%	4.2%	4.0%	4.5%	4%	5%	7%
Risk & Capital Management	25%	2.7%	2.5%	3.2%	3%	3%	3%
Data Management	22%	2.5%	2.2%	2.3%	3%	3%	6%
Regulation	18%	1.7%	2.1%	2.3%	3%	2%	
Teaching/Research	10%/18%	2.1%	2.5%	1.4%	2%	2%	4%
Enterprise Risk Management	25%	2.4%	3.1%	3.5%	2%		
Expert Witness	8%	0.2%	0.4%	0.5%	1%	1%	
Valuation	11%	0.7%	0.7%	0.7%	1%	1%	1%
Investments	4%	0.3%	0.3%	0.4%	1%	1%	1%
Other	7%	3.7%	4.7%	3.9%	5%	11%	6%

Most members have worked in the areas of pricing/ratemaking at some point in their career (88%) and have spent an average of 29.3% of their time in this area in the last two years. The second most-frequent area in which members have been involved in their career is reserving (68%) and have spent an average of 17.7% of their time over the last two years working in that area.



Approximately one-quarter of members have been a volunteer group member in the last three years, down from 31.6% who said the same in 2018. Fewer than one in 10 have held any other leadership position.