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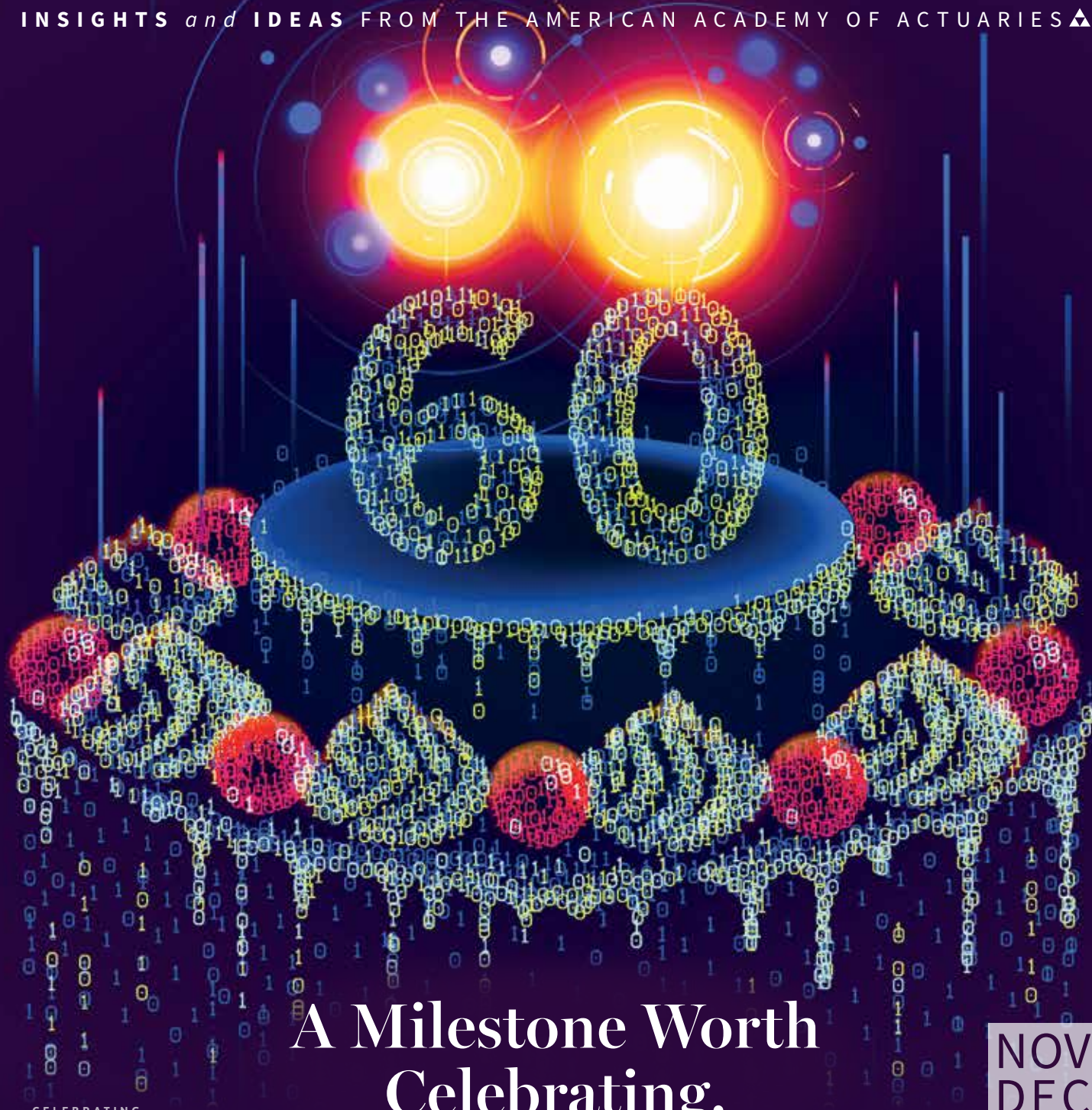


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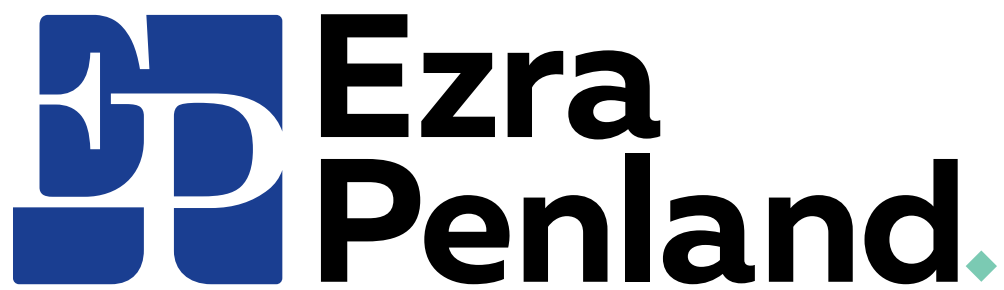
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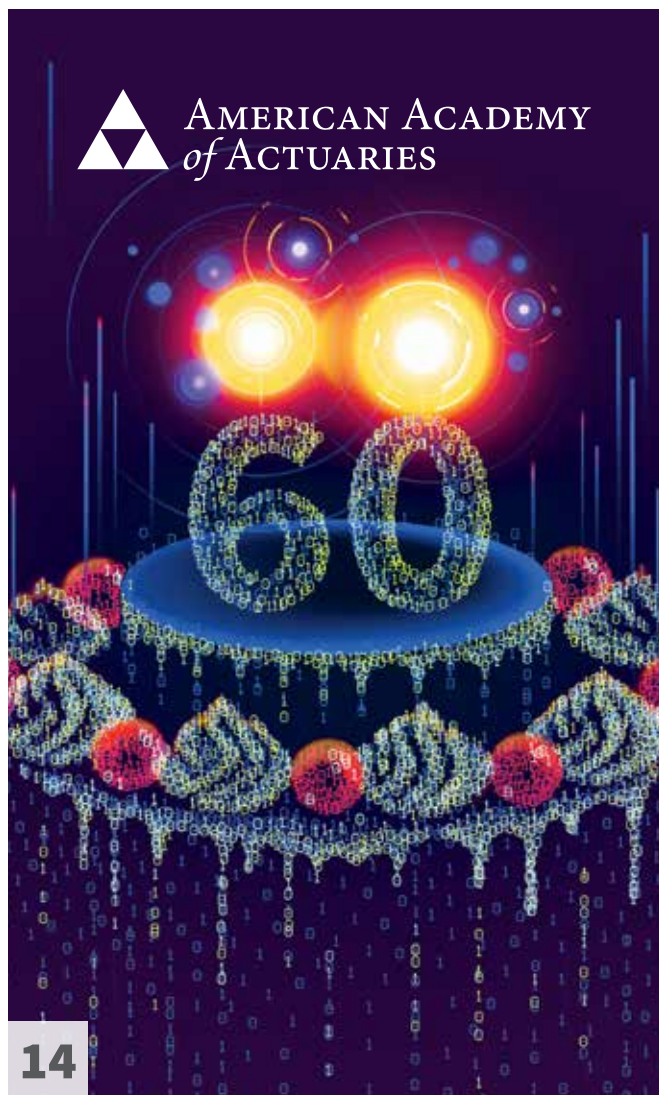


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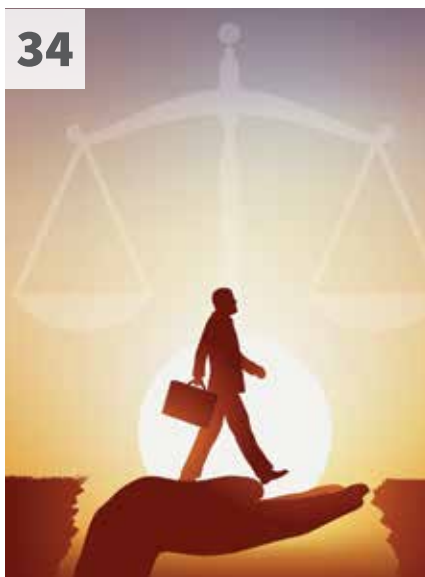
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'Tis the Season to Pause, Reflect, & Celebrate

ANNIVERSARIES HAVE A WAY OF MAKING US PAUSE. They pull us out of the urgency of today and ask us to look both backward and forward—to see how far we've come, and to consider what might come next. They serve as markers in our personal and professional lives, giving us an anchor in the constant flow of change.

This year, the Academy marks its 60th anniversary—a moment to reflect on its journey and look ahead. Our cover story, “Sixty and Counting” (page 14), reflects on how, from its founding in 1965 to the current age of artificial intelligence, the Academy has adapted to meet the moment. Past presidents reflect on six decades of progress—and the challenges and opportunities that shape the profession and the Academy. Meanwhile, in his final column as president, “The Best Is Yet to Come” (page 6), Darrell Knapp highlights the Academy's six decades of faithfully serving the public and the U.S. actuarial profession.

In “Six Decades of Service, A Future of Impact” (page 8), Executive Director and CEO William J. Michalisin outlines the Academy's priorities and underscores why membership is essential for every actuary practicing in the U.S.

There are several other articles in this issue worth your attention. Professionalism—central to the Academy's mission—comes into focus in three articles. “Professionalism in Practice” (page 24) highlights why self-regulation matters—and how the Academy and actuaries at every career stage play a vital role in maintaining the integrity and trust of the profession.

That theme continues in “A Steady Hand” (page 34), where Actuarial Board for Counseling and Discipline Chairperson William C. Hines shares insights on steering the profession through ethical complexities, expanding the use of requests for guidance, and preparing for challenges ahead. And in “Championing Standards of Practice” (page 38), Kevin Dyke, Actuarial Standards Board chairperson, reflects on the board's accomplishments and its role in guiding actuaries through evolving practice areas, regulatory expectations, and emerging risks..

Shifting focus to public policy, another core mission of the Academy, we're introducing a new column, “Policy Compass” (page 48), designed to keep you informed about our policy efforts. The inaugural column discusses H.R. 1, also known as the One Big Beautiful Bill Act, which touches upon many issues of interest to the Academy and the broader policy community, most notably in health care.

Of course, anniversaries aren't just about looking back; they're also about celebrating. To that end, we're especially excited to introduce you to the 2025 Rising Actuary Award recipients (page 42). The award recognizes outstanding early-career actuaries who have demonstrated excellence, leadership, and a commitment to advancing the field.

Finally, you may have noticed something different about this issue as soon you turned the first page: a refreshed nameplate for *Contingencies*. We chose this updated look to better reflect the magazine's evolution while honoring its strong foundation—a small but meaningful way of marking the Academy's 60th year.

So as you read this issue, I hope you'll take a moment to pause, reflect, and celebrate—both the Academy's legacy and your own contributions to strengthening the profession. The Academy's 60 years are the product of thousands of actuaries, volunteers, staff, and leaders who believe in the profession's power to serve the public. And today, we celebrate every member whose dedication, insight, and passion have built the Academy's legacy. Your work ensures a strong, bright future for the profession we all serve. ▲

PREETI VASISHTHA is editor-in-chief, *Contingencies*, and the Academy's director of content.



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The Best Is Yet to Come

THIS NOVEMBER/DECEMBER ISSUE OF *CONTINGENCIES* IS A SPECIAL ONE, celebrating the Academy's 60th anniversary—six decades of faithfully fulfilling its mission to serve the public and the U.S. actuarial profession.

It is a milestone that calls for celebration as well as some reflection on how far we have come. In 1965, the actuarial profession existed in a world of slide rules, adding machines, multi-column spreadsheets (on paper!), and commutation functions while we are now learning how to make use of artificial intelligence, big data, and an interconnected world including driverless automobiles. (See the cover story, "Sixty Years and Counting" (*page 14*), which features reflections from six of the Academy's past presidents.)

With respect to public policy, the Academy has had the opportunity to offer its input on a number of cornerstones of the nation's financial security systems, including the National Flood Insurance program, Employee Retirement Income Security Act (ERISA), Social Security reforms (see the Academy's own Social Security Challenge), significant innovations in life and annuity products, the Terrorism Risk Insurance Act, the Affordable Care Act, Medicare and Medicaid managed care products, and risk-based capital requirements for insurers, to name just a few.

We have had the opportunity to comment on major changes in insurance accounting, including the codification of statutory accounting, International Financial Reporting Standards (IFRS) and Generally Accepted Accounting Principles (GAAP) reforms, Sarbanes-Oxley, principles-based reserving (PBR), and standard valuation laws. We have, and will continue to, work with policymakers on Capitol Hill in Washington D.C. (in part through the Academy's "Hill visits" each spring); with the National Association of Insurance Commissioners (NAIC); and with state legislators and regulators to provide unbiased input on questions they are trying to address.

From a professionalism viewpoint, the Academy has had a hand in the development and stewardship of the cornerstones of our profession—the Code of Professional Conduct, the U.S. Qualification Standards (USQS), the Actuarial Standards Board (ASB; which has issued almost 60 actuarial standards of practice [ASOPs] and revised many more), and the Actuarial Board for Counseling and Discipline (ABCD). These professionalism components have served actuaries well and should continue to do so in the future.

This momentous occasion also calls for some self-reflection. In the McCarthy boardroom in the Academy's Washington, D.C., offices, there is a wall with photographs of all the prior Academy presidents—many great women and men who have served the Academy and the actuarial profession very well, some

of whom I am proud to consider as friends. I am both humbled and honored to be included in that group, and it has been a pleasure to have the opportunity to serve and lead this great organization. As I reflect on my own actuarial journey, two actuaries immediately come to mind—Dr. Newton Bowers, my professor and advisor at Drake University, who taught us so much more about being an actuary than what was in the textbook (which he helped author), and Jim Roberts, who was a mentor and friend at several of my employers. I would encourage each of you to use this anniversary celebration as an opportunity to take a moment and reflect on actuaries who may have had a profound influence on your careers and lives.

As much fun as an anniversary celebration is, we can't just look back. November brings new leadership to the Academy with a new president, Tricia Matson; a new president-elect, Frank Todisco; and several new vice presidents and member-selected directors. This leadership team—together with Executive Director Bill Michalisin and his team of highly competent staff—leaves the Academy well positioned to begin the next 60 years. The U.S. actuarial profession is deeply indebted to the efforts of these staff members and volunteers (as well as the 1,000-plus other volunteers) for their dedicated service to the public and the profession. As I pass the gavel to Tricia, I am as excited about the future as I am grateful for the past.

Since this is my last column, I wanted to also take a moment to thank the Academy communications team, which effectively keeps all of us informed about Academy activities through publications, emails, social media, and other channels.

Again, it has been an honor and a privilege to have been able to serve the Academy, an organization that has done so much for the actuarial profession and for the public on behalf of the actuarial profession for the last 60 years. Looking forward, I believe the best is yet to come! ▲

DARRELL KNAPP is president of the Academy.

LETTER TO THE EDITOR

The Importance of Economic Principles for Actuaries

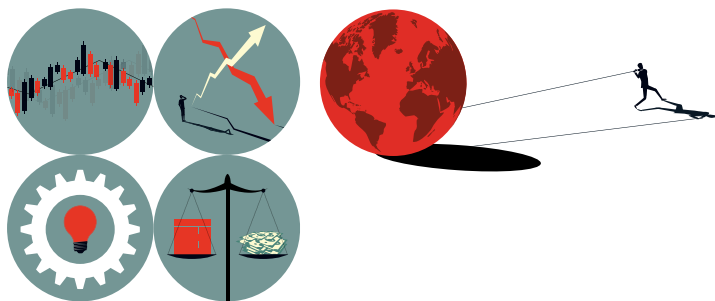
I appreciate the ambitious two-part primer on economics (“The Dynamics of Market Forces—Setting the Stage” and “The Dynamics of Market Forces—Squaring the Circle”) by Carlos Fuentes published in the May/June 2025 and July/August 2025 issues of *Contingencies*. After all, “market forces” are arguably as understandable as “human nature.” Furthermore, because *Contingencies* “explores the issues driving the insurance and financial services industries (and) ... is written for actuaries as well as general readers with an interest in a range of financial and social concerns,” the articles on the contributions of famous economists is fundamental to that purpose.

As my boss told me in 1993, when Liberty Northwest tried to break into group health care with me as the product actuary, it’s one thing to get the rates right from an actuarial standpoint, but another to price them so employers will actually buy. As it turned out, they were not able to achieve the economies of scale, efficiencies, and provider contracted discount levels needed to generate a profit, and by 2000, like their parent company Liberty Mutual, they exited the group medical market. Thus, the economic fundamentals of “the market” are just as important, if not more so, than the actuarial basis. That is the rationale any actuary should have in committing to understand the principles touched upon in the series.

Of course, important considerations and foundational principles hinted at in length in the series, include that no economic model has ever fully explained anything, that economics is as complex as humanity itself, and that, as Steven Levitt and Stephen Dubner of the Freakonomics franchise say, their work “explores unconventional and surprising insights into various societal issues through the lens of economic theory and statistical analysis.” So, it’s not that economic theory and statistical analysis explain everything; they do not. Rather, they provide a framework or lens that allows issues to be better modeled. That is the reason—and an excellent one—that actuaries should understand economic principles.

Wes Edwards

A newly retired actuary



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Six Decades of Service, A Future of Impact

SIXTY YEARS AGO, leaders from the four actuarial organizations based in the United States came together with hopes of uniting the actuarial profession in this country. The leaders involved wanted to create a separate and independent organization focused on clarifying what it meant to be an actuary and serving as a voice for the profession in the U.S.; setting standards and accreditation for U.S.-based actuaries; adopting a code of professional conduct; leading public and stakeholder relations and awareness-building efforts; and establishing and maintaining robust professional standards of actuarial practice. With the commitment and dedication of many actuarial leaders across those organizations, the American Academy of Actuaries was established. Its detailed history can be found on our website.

Since its inception, the Academy has constantly evolved and grown in its role, building on the foundation set by our actuarial peer organizations and their leaders, and today it serves over 20,000 members who proudly carry the MAAA designation. The Academy houses and supports the professionalism structures that guide all actuaries practicing in the U.S.—including the code of conduct, standards of practice, and qualification standards—as well as the profession’s counseling and discipline process. These are all critical to the profession’s credibility and its ability to self-regulate.

As the voice for the U.S. actuarial profession on public policy issues, the Academy continues to play a vital role in sustaining the trust the public and many stakeholders we serve place in the U.S. actuarial profession. We contribute an independent, objective, and balanced perspective on actuarial issues.

As our peer actuarial organizations continue to evolve and increase their global engagement, our national focus and priorities are more important than ever. I’d like to highlight some examples of how we continue to fulfill our mission to serve the public and the U.S. actuarial profession.

- The Academy provides for the establishment, maintenance, and enforcement of high professional standards of actuarial qualification, practice, and conduct through the direct support of the Actuarial Standards Board (ASB) and Actuarial Board of Counseling and Discipline (ABCD), as well as the Committee on Qualifications and the Joint Committee on the Code of Conduct. From actuarial standards of practice (ASOPs) and the U.S. Qualification Standards (USQS) to requests for guidance submitted to the ABCD, the Academy and its structures continue to be the one-stop resource for actuaries and their stakeholders in the U.S.
- As the public policy voice for the U.S. actuarial profession, the Academy provides independent and objective actuarial information, analysis, and education through the work of our practice councils and dedicated volunteers. Their contributions—ranging from comment letters and presentations to practice notes and issues briefs—help educate, inform, and support stakeholders at all levels of government in the formation of sound public policy.
- The Academy further advances actuarial practice by informing and educating its members on public policy and professionalism issues, and current and emerging practices. Our councils and staff develop many webinars (live and recorded) and more than 300 publications and resources annually to serve members and stakeholders.
- The Academy identifies and addresses issues on behalf of the public interest in areas where actuarial science provides a unique perspective—from Social Security and retirement, to artificial intelligence (AI), data analytics, and cyber, to climate change and extreme events. Visit our Policy Forum online for a snapshot of these issues and access to many resources available to the public, our members, and stakeholders.
- The Academy increases the public’s understanding and recognition of the value of the actuarial profession and strengthens what it means to be an MAAA and what it means to be a qualified actuary under the USQS. The MAAA is referenced in over 1,400 laws and regulations at the state and federal levels, and the Academy works diligently to reinforce those references and ensure the value and competencies associated with membership are clear to all. This is a critical reason why we refined our member requirements in line with the Academy’s Competency Framework, which go into effect Jan. 1, 2026.

Every actuary practicing in the U.S. should be a member of the Academy, the only U.S.-based organization solely focused on serving the public and the U.S. actuarial profession—a mission that benefits actuaries, their employers, various stakeholders, and the profession alike.

When speakers at some events I attend suggest that actuaries don't need to join the Academy as members, they overlook how the Academy's policy work, public representation, support of professionalism structures, and cross-organizational collaboration strengthen the entire U.S. actuarial profession. Professional excellence requires engagement on multiple fronts, and our over 20,000 members recognize the value of participating in both their credentialing organization and the Academy. Investing in Academy membership is an investment in both your professional growth and the profession as a whole. Every actuary practicing in the U.S. *should* be a member of the Academy, the only U.S.-based organization solely focused on serving the public and the U.S. actuarial profession—a mission that benefits actuaries, their employers, various stakeholders, and the profession alike.

As we celebrate 60 years, it's important to understand why we are here and how we fulfill the mission that continues to drive us. Equally important is looking ahead to the next 60 years—and beyond—which will be the focus of our January/February 2026 issue. As our credentialing peer organizations continue to evolve globally and technology continues to change rapidly, evolving practices and new competencies will propel the profession forward. An organization that values collaboration with its peer organizations, focuses on the issues facing the U.S. market and policymakers, and directly supports actuaries practicing in the U.S. is critical to the long-term sustainability of the actuarial profession. One

thing I know for certain is that the Academy will continue to lend its leading voice on professionalism and policy issues, supporting our growing membership of MAAAs, informing stakeholders at all levels of government, and delivering value and insights to all.

Visit actuary.org to learn more, and please feel free to email me at michalisin@actuary.org with any questions, feedback, and ideas you may have on future topics and ways we can continue advancing the Academy's mission forward together. ▲

WILLIAM J. MICHALISIN is the Academy's executive director and CEO.



Here's what we're working on:

- Academy Plans for Members and Stakeholders in 2026
- Practice Council Priorities and the Broader Landscape
- Professionalism in the Age of AI
- Consumer Behavioral Data in Actuarial Science
- How Deep Learning Is Transforming Predictive Analytics in Insurance

Stay tuned for in-depth insights and expert analysis on the issues shaping the actuarial profession.

Have a topic that you would like to see covered? Send your ideas to editor@actuary.org.

When Is a Violation Resolved?

SARAH MCAREE (MAAA, FSA) HAS A PROBLEM. Sarah was recently engaged by the privately held Argo Fishing Lure Co. to provide actuarial services related to its retiree group-benefit plans, beginning with the that year's valuation. Jim McNiece (MAAA, ASA, FCA) had announced he would be retiring at the end of the year, and Argo decided to engage Sarah's services now rather than wait. The first step in her process for taking over this assignment was to obtain a copy of the previous year's census data from Jim and attempt to replicate his valuation results. After several weeks spent setting up her valuation system to handle Argo's plan, running the valuation, comparing the results, and tracking down the differences, she realized that McNiece had made a mistake in valuing a plan provision that was first reflected in the previous year's valuation. The mistake overstated Argo's obligation by about 10 percent. Sarah contacted Jim to discuss what she had found. After hearing Sarah's explanation and checking his own system's results, Jim agreed that he had misunderstood the plan provision, resulting in the error.

Sarah and Jim met with Stu Waters, CFO of Argo (and one of its five shareholders) to discuss the situation. Stu called in the company's president and its auditor. All agreed with Sarah's interpretation of the plan provision and her valuation results. Since Argo is a privately held company and the error didn't adversely affect Argo's creditors, Stu and the auditors decided to reflect the correction by restating the beginning balance sheet (which had included the plan change) and correcting that year's expense in previous year's financial statements. They also planned to reflect the corrected values in the company's

contribution to its Voluntary Employees' Beneficiary Association (VEBA) trust and the tax deduction it takes for retiree group benefits.

Sarah's problem is in deciding whether Jim's apparent failure to provide actuarial services with sufficient skill and care has been resolved. Is she bound by Precept 13 of the Code of Professional Conduct to report it to the Actuarial Board for Counseling and Discipline (ABCD) as an unresolved apparent material violation? She has heard many views about resolving violations at the actuarial meetings she has attended and isn't sure which to follow.

An Actuary with knowledge of an apparent, unresolved, material violation of the Code by another Actuary should consider discussing the situation with the other Actuary and attempt to resolve the apparent violation. If such discussion is not attempted or is not successful, the Actuary shall disclose such violation to the appropriate counseling and discipline body of the profession, except where the disclosure would be contrary to Law or would divulge Confidential Information.

Annotation 13-1. A violation of the Code is deemed to be material if it is important or affects the outcome of a situation, as opposed to a violation that is trivial, does not affect an outcome, or is one merely of form.

Annotation 13-2. An Actuary is not expected to discuss an apparent, unresolved material violation of the Code with the other Actuary if either Actuary is prohibited by Law from doing so or is acting in an adversarial environment involving the other Actuary.

Navigating Precept 13

While this article was originally published in the January/February 2009 issue of *Contingencies*, it discusses concepts and resources that are still relevant today. The Actuarial Board for Counseling and Discipline's request for guidance process has become a valuable resource for the actuarial profession. Actuaries use it for help with a wide range of professionalism questions and issues, including (as in this article) whether to report a violation of the Code of Professional Conduct under Precept 13. As you'll see from the discussion, whether something is material is key to whether it should be reported. In this article, you can learn about some of the things you might think about when considering whether to report a potential violation to the ABCD.

Sarah is concerned, so she decides to contact the ABCD for guidance. She sends an email to the ABCD outlining the situation and asking to be contacted by one of its members. ABCD member Alice Wicksteed calls Sarah the next day.

Alice: Sarah, your request for guidance was forwarded to me. I read your summary of the situation and am happy to discuss it with you. You need to realize that I will provide you with my comments and opinions, and not those of the ABCD as a whole. I will share a summary of our conversation with the other members so that we are all aware of the advice being given. Beyond that, our conversation is entirely confidential.

Sarah: I really appreciate you calling. In my email, I set out the situation as completely as I could. I'm eager to hear your thoughts about it.

Alice: As you know, Precept 13 requires an actuary to report to the ABCD an apparent unresolved material Code violation of which the actuary is aware. I infer from your email that you clearly think that the error in Jim's work was a material violation. Given that he has corrected the error and the client is satisfied, why do you have concerns about whether or not the violation has been resolved?

Sarah: You're right; I definitely think the error was material. I have taken over five cases from Jim over the past two years as he has been reducing his practice. I found at least one mistake in four of the five cases. The other mistakes weren't

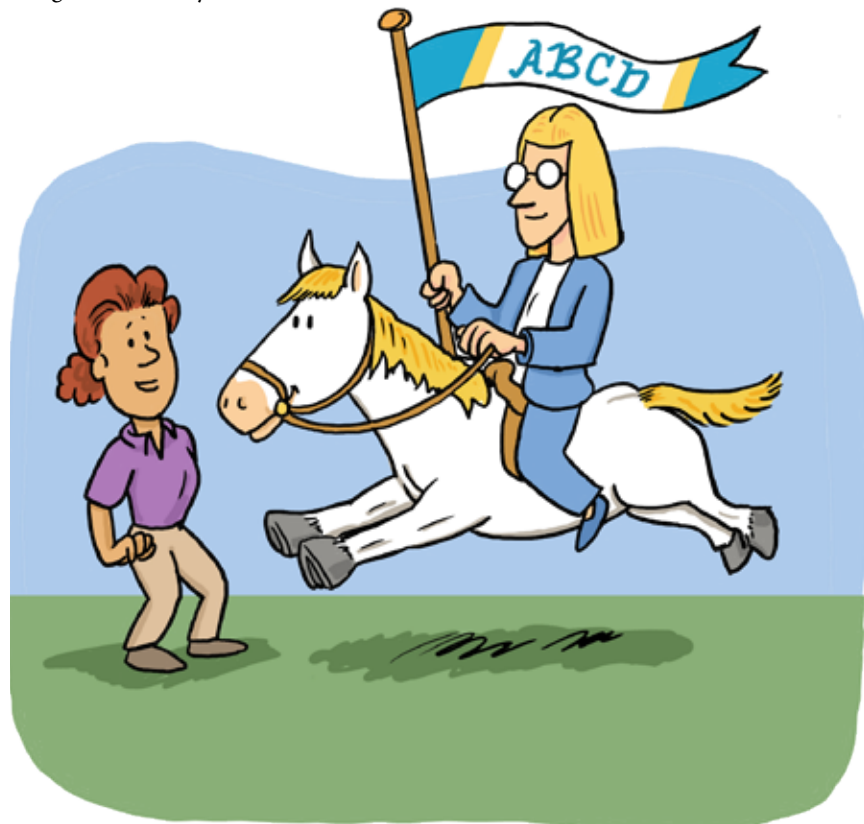
as significant as this one, so I didn't think twice about them at the time. No one is perfect. This latest mistake was definitely significant enough for me to be concerned. And just because everyone agreed that neither the five shareholders nor the creditors were hurt by it, they could have been, especially if the error had been an understatement rather than an overstatement. I'm not sure that merely correcting the error is enough to resolve it. What do you think?

Alice: First of all, I believe that Precept 13 leaves the decision up to the actuary who is aware of the violation. I can't see the ABCD second-guessing an actuary who makes a good-faith decision, as long as the actuary has a reasonable

basis for the decision. Second, my personal approach to deciding whether a violation is resolved or not is to consider a few questions:

- Is it likely that this is part of a pattern of lack of care or skill in performing actuarial services, or is it an isolated incident?
- Despite the correction, is the violation such that its having occurred adversely affects the reputation of the profession?
- Despite the correction, is the violation so egregious that I am uncomfortable unless more is done about it?

If I were to answer yes to any of these questions, I would submit a complaint unless prevented by confidentiality or some other restriction.



A middle ground recognizing that some violations can be resolved by taking corrective action seems reasonable, especially if the corrective action is satisfactory to all known affected parties. But this approach also recognizes that the violation may still be unresolved if it's part of a pattern of inadequate work or questionable behavior or is so significant that it should be investigated further.

Sarah: That makes sense. I'll have to think this over some more. If I decide to submit a complaint, how do I do it?

Alice: You should send your complaint in writing to the ABCD at the Academy's offices. The complaint must be signed and should identify the actuary and the conduct that you think is a violation of the Code. Supporting evidence is always helpful. You can find

more details on submitting a complaint by going to www.abcdboard.org.

Sarah: Thanks, Alice. You've been a great help.

Precept 13 places a responsibility on all members of U.S. actuarial organizations to report apparent unresolved material violations of the Code, unless confidentiality or other legal factors prevent them from doing so. But Precept 13 also encourages them to first attempt to resolve the violation.

As it is for Sarah, deciding whether or not a particular apparent violation has been resolved can be difficult.

It's sometimes argued that no violation can be resolved, because the conduct can't be erased. This is felt to apply particularly to violations involving ethical conduct. The fact that the ethical act is reversed doesn't eliminate the effect it had on the reputation of the profession. An alternative view is that if the actuary admits the violation and corrects it to the satisfaction of all parties, it's resolved and needn't be reported.

A middle ground recognizing that some violations can be resolved by taking corrective action seems reasonable, especially if the corrective action is satisfactory to all known affected parties. But this approach also recognizes that the violation may still be unresolved if it's part of a pattern of inadequate work or questionable behavior or is so significant that it should be investigated further. ▲

At the time of publication, **WILLIAM J. FALK** was a principal with Towers Perrin in Chicago. He was also vice chairperson of the Actuarial Board for Counseling and Discipline.

Paper on Precept 13 Available

For more information on Precept 13, read the Academy's discussion paper, *The Application of Precept 13 of the Code of Professional Conduct*, available at www.actuary.org.

UP TO CODE | WILLIAM J. FALK

When Is a Violation Resolved?

SARAH MCAREE (FSA, MAAA) HAS A PROBLEM. Sarah was recently engaged by the privately held Argo Fishing Lure Co. to provide actuarial services related to its retiree group-benefit plans, beginning with the 2009 valuation. Jim McNiece (ASA, MAAA, FCA) had announced he would be retiring at the end of 2009, and Argo decided to engage Sarah's services now rather than wait. The first step in her process for taking over this assignment was to obtain a copy of the 2008 census data from Jim and attempt to replicate his 2008 valuation results. After several weeks spent setting up her valuation system to handle Argo's plan, running the valuation, comparing the results, and tracking down the differences, she realized that McNiece had made a mistake in valuing a plan provision that was first reflected in the 2008 valuation. The mistake overstated Argo's obligation by about 10 percent. Sarah contacted Jim to discuss what she had found. After hearing Sarah's explanation and checking his own system's results, Jim agreed that he had misunderstood the plan provision, resulting in the error.

Sarah and Jim met with Stu Waters, CFO of Argo (and one of its five shareholders) to discuss the situation. Stu called in the company's president and its auditor. All agreed with Sarah's interpretation of the plan provision and her valuation results. Since Argo is a privately held company and the error didn't adversely affect Argo's creditors, Stu and the auditors decided to reflect the correction by restating the December 2007 balance sheet (which had included the plan change) and correcting the 2009 expense in the 2008 financial statements. They also planned to reflect the corrected values in the company's 2008 contribution to its Voluntary Employees' Beneficiary Association (VEBA) trust and the tax deduction it takes for retiree group benefits.

Sarah's problem is in deciding whether Jim's apparent failure to provide actuarial services with sufficient skill and care has been resolved. Is she bound by Precept 13 of the Code of Professional Conduct to report it to the Actuarial Board for Counseling and Discipline (ABCD) as an unresolved apparent material violation? She has heard many views about resolving violations at the actuarial meetings she has attended and isn't sure which to follow.

Sarah is concerned, so she decides to contact the ABCD for guidance. She sends an e-mail to the ABCD outlining the situation and asking to be contacted by one of its members. ABCD member Alice Wicksteed calls Sarah the next day. Let's listen in on their conversation.

Alice: Sarah, your request for guidance was forwarded to me. I read your summary of the situation and am happy to discuss it with you. You need to realize that I will provide you with my comments and opinions, and not those of the ABCD as a whole. I will share a summary of our conversation with the other members so that we are all aware of the advice being given. Beyond that, our conversation is entirely confidential.

Sarah: I really appreciate your calling. In my e-mail, I set out the situation as completely as I could. I'm eager to hear your thoughts about it.

Alice: As you know, Precept 13 requires an actuary to report to the ABCD an apparent unresolved material Code violation of which the actuary is aware. I infer from your e-mail that you clearly think that the error in Jim's work was a material violation. Given that he has corrected the error and the client is satisfied, why do you have concerns about whether or not the violation has been resolved?

Sarah: You're right; I definitely think the error was material. I have taken over five cases from Jim over the past two years as he has been reducing his practice. I found at least one mistake in four of the five cases. The other mistakes weren't as significant as this one, so I didn't think twice about them at the time. No one is perfect. This latest mistake was definitely significant enough for me to be concerned. And just because everyone agreed that neither the five shareholders nor the creditors were hurt by it, they could have been, especially if the error had been an understatement rather than an overstatement. I'm not sure that merely correcting the error is enough to resolve it. What do you think?

WILLIAM J. FALK is a principal with Towers Perrin in Chicago. He is also vice chairperson of the Actuarial Board for Counseling and Discipline.

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Up To Code as it appeared in the January/February 2009 edition of *Contingencies*

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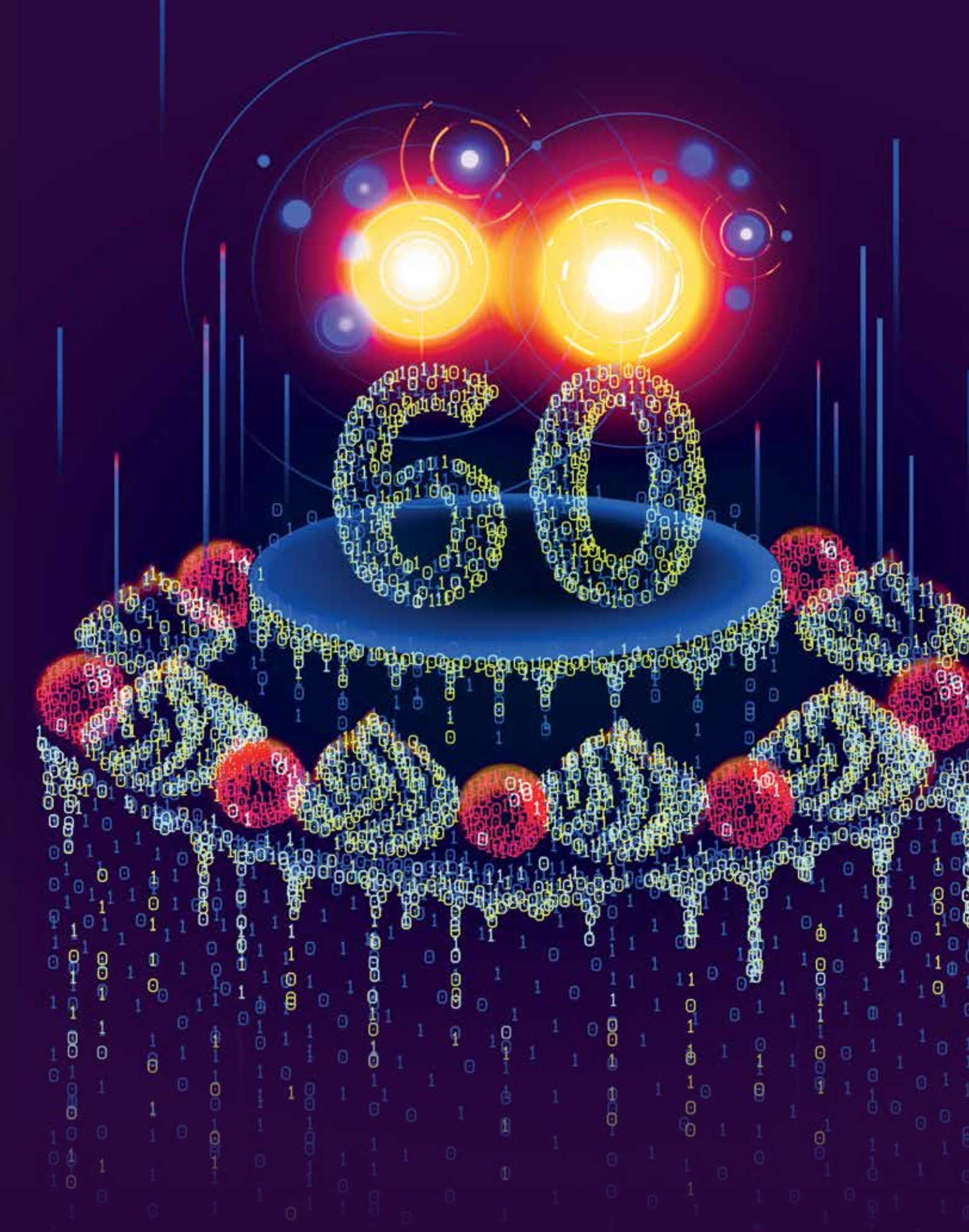
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Sixty Years *and* Counting

*From its 1965 founding
to the age of artificial
intelligence, the Academy
has adapted to meet the
moment. Past presidents
reflect on six decades
of progress—and the
challenges and opportunities
that shape the profession.*

BY MICHAEL G. MALLOY

In 1965, President Lyndon B. Johnson signed Medicare into law, and Social Security turned 30 years old. In sports, the NFL was a little more than a season away from Super Bowl I, and heavyweight champion Muhammad Ali defeated Sonny Liston for the second time, in a first-round knockout. In popular culture, Sonny & Cher had a radio hit with “I Got You Babe,” fictional “Mad Men” New York ad man Don Draper took his 11-year-old daughter Sally to see The Beatles at Shea Stadium, and *The Sound of Music* topped the year’s big-screen box office.

And, on Oct. 25, at shortly after 4 p.m., the American Academy of Actuaries was founded to be the voice of the U.S. actuarial profession on public policy issues and professionalism with Henry Rood as its first president. The Academy’s *Charting the Course* book, published in 2015 marking its 50th anniversary, gives a comprehensive overview of key events in the organization’s first half-century, and the actuarial profession’s historical roots in the United States going back to around 1800, shortly after the nation’s founding.^[1]

In the past decade, the Academy has continued its growth and evolution, adeptly shifting gears at the outset of COVID-19 in 2020—releasing issue briefs, other publications, and holding webinars on the pandemic’s effects on everything from health care to financial-system solvency. It moved its annual meeting online that year and since then, it has continued adapting, adopting a hybrid format, refreshing its many delivery formats and communication channels, and making significant investments in new technologies and practices to best serve the growing needs of its more than 20,000 members practicing in the U.S.

Contingencies asked six former Academy presidents to share their perspectives on the Academy’s journey: Jim MacGinnitie (1989), Mavis Walters (1991), Larry Zimpleman (1997), Tom Wildsmith (2016), Bob Beuerlein (2017), and Maryellen Coggins (2022). (Each began their term late in the preceding year and served through most of the year shown.)

MacGinnitie, a charter member of the Academy, noted a bevy of changes in the past six decades, with changes “from punch cards to the cloud, with the

attendant massive increase in the amount of data and the sophisticated software and algorithms to use it. Health care has grown enormously, with more sophisticated actuarial practice required. Natural catastrophes and their modeling have grown, [as has] international actuarial practice,” he said.

“I think probably everyone back then did” join the Academy, MacGinnitie said. “In my area, casualty, rating bureaus were dominant; a large fraction of the casualty actuaries either worked at the bureaus or served on their committees,” he added. “The nature of a profession is to build on the past and pass it on to the next generation. The Academy afforded me an opportunity to do so, for which I am grateful.”

The profession in 1965 was much smaller, including membership at groups like the Casualty Actuarial Society (CAS) and the Society of Actuaries (SOA), which predated the Academy’s founding. Actuaries were largely focused on insurance companies and pension plan sponsors, MacGinnitie said.

“As a relatively small profession—and one that unfortunately often bears unwelcome news—it’s



In the past decade, the Academy has continued its growth and evolution, adeptly shifting gears at the outset of COVID-19 in 2020—releasing issue briefs, other publications, and holding webinars on the pandemic’s effects on everything from health care to financial-system solvency. It moved its annual meeting online that year and since then, it has continued adapting, adopting a hybrid format, refreshing its many delivery formats and communication channels, and making significant investments in new technologies and practices to best serve the growing needs of its more than 20,000 members practicing in the U.S.



important to have a competent and professional organization like the Academy to develop relationships and communication channels with those outside groups,” said MacGinnitie, who later served as Academy Senior Casualty Fellow from September 2015 to September 2017.

Mavis Walters, the Academy’s first woman president (see sidebar, “Women’s Growing Leadership Roles in the Profession,” on page 18), said that being involved with the Academy gave her exposure to actuaries in other practice areas and a greater appreciation for those areas. “I think that’s very valuable in bringing a whole actuarial profession together, in the roles that others play,” Walters said. “The Academy is the only organization that makes statements on public policy,” which heightens the importance of accuracy in such statements.

Walters, who also served as CAS president and chaired The Actuarial Foundation’s board, said that in her various leadership roles she always emphasized the profession’s objectivity, which is core to how the Academy operates.

She introduced political leaders speaking on the budget at a 1990 luncheon in Washington, and said that in her former job she also had testified many times on Capitol Hill, noting the importance of translating often complex issues into understandable language for lawmakers and others. “Congress was always looking for data, and I would often say, ‘Senator or Congressman, I don’t have that answer right now, but if I did, how would it help you?’”

An Evolving Role

Bob Beuerlein, from the life practice area, also noted the evolving role of the Academy and the actuarial profession.

“Over the past 60 years, the role of a professional actuary has changed significantly due to expanded responsibilities, the ever-changing environment of issues, and the continuing evolution of tools available,” Beuerlein said. “While a four-function pocket calculator was once deemed to be revolutionary, the technical tools have become more sophisticated so that ChatGPT AI [artificial intelligence] is [becoming] commonly used by the American public.

“The DNA of Academy members has remained the same” over the years, Beuerlein said. “Inherent in each member is the obligation to perform actuarial services with honesty, integrity, and competence, in an unbiased and objective manner, so as to maintain the public trust. The development of standards by the ASB [Actuarial Standards Board], the USQS [U.S. Qualification Standards], and the Code [of Professional Conduct] have all occurred since the Academy’s founding. All have been huge contributors to more consistent and professional actuarial services being performed in the U.S.”

Beuerlein noted more recent Academy adaptations to challenges faced by U.S. actuaries. For instance, in the second half of 2025, the Academy sought member input in establishing a process to identify and understand the implications of potentially disruptive events.

Women's Growing Leadership Roles in the Profession

Academy Past Presidents Mavis Walters and Maryellen Coggins both said they have seen growing representation by women in the actuarial profession over the decades.

Walters paraphrased another Academy president, Barbara Lautzenheiser (2004), who said that being a woman is like being a petunia in the onion patch—everyone is going to notice you, and you're going to stand out. So the pressure is on to be competent and be the best you possibly can.

In her case, Walters said she “didn’t consider it groundbreaking when I was elected president, because I had put in a lot of time on committees and professionalism activities at the Academy. I was happy to serve and got to know a lot of women who became presidents of other actuarial organizations. I never considered myself the first woman of anything, it was just the way it was.

“When I was visiting local actuarial organizations, or student groups, I would tell people the beauty of the actuarial profession was you had an objective measure of your potential—including passing your exams. Examiners don’t know if you’re a man or a woman, they only know your number.”

Besides the role of changing technology, Coggins—who served as the Academy’s sixth woman president in 2022—said that throughout her career she has seen the growing role of female actuaries in the profession. Incoming President Tricia Matson will be the Academy’s eighth female president, and four of the last eight presidents have been women.

“In my early years—and I’m sure it was more so for Mavis—it was extremely common to be in senior management or board meetings that consisted entirely of men,” Coggins said. “Today, we see female actuaries in a wide variety



of leadership positions. Seeing so many more women rise to actuarial leadership positions than when I began my career has been truly gratifying,” she said, adding that in the year she served as Academy president, the presidents of all five U.S. actuarial organizations were women, “which certainly felt like a notable achievement.”

Coggins added that “we know that there’s lots more work to do to attract women to and support women within the profession [and we are] ... “really fortunate to have a number of affinity groups that are making a difference in actuarial representation, including the Network of Actuarial Women and Allies, which is one such group that’s focused on supporting women in the profession, which is fantastic.”

“The world continues to change, and the Academy is changing to adapt to all of this,” Beuerlein said.

The Academy book *Charting the Course* included a quote by another past president, Tom Terry (2014): “The problems of the nation’s biggest and most financially stressed programs are all actuarial in nature.”^[2] The Academy aims to highlight the actuarial perspective and how it is essential when looking at those problems with solutions that are independent, objective, and balanced.

“I think that still holds up very well today,” said Zimpleman, who practiced in the retirement area. “Whether it’s flood insurance, Medicare and Medicaid, or Social Security, legislators and government get into those areas that private industry can’t fill, in a

politically feasible way that’s not always financially feasible. Over time, we find that those programs need a lot of help, and that’s where actuaries come in.”

Beuerlein added that “many of the nation’s financial problems can be analyzed using actuarial techniques. However, the bigger question is, ‘What do actuaries do about this?’”

He likened it to the difference between a thermometer and a thermostat. “A thermometer can precisely analyze and report on the temperature of a room, but does not have an effect on the temperature. A thermostat can also determine the temperature of a room, but can also impact the environment by sending a signal to the air conditioner or furnace to adjust the temperature to the desired level,” Beuerlein said. “As actuaries, we need to

be more like thermostats—by prudently striving to influence the environment as we analyze problems, both small and large.”

Wildsmith, from the health practice area, noted that the tools and techniques used by actuaries have changed dramatically over his career. “When I started, I did spreadsheets by hand on large, pre-printed paper pads—I used a pencil, because mistakes happen! Since then, I’ve seen the introduction of personal computers, email, the internet, instant messaging, video conferencing, telework, and now generative AI,” he said—all of which have transformed the way actuaries do their job.

“It’s been at least 30 years since I’ve heard an executive ask a secretary to type a letter,” Wildsmith said. “The insurance and retirement products and programs we work with have also changed. As computing technology has progressed, our models have become more complex and refined.”

But he added that “the core of the work itself—analyzing the financial impact of uncertain future events to ensure the soundness of financial security programs—has not changed. The professional responsibility we have toward the public has not changed. The importance of our work to the millions of individuals, families, and businesses who rely on the products and programs we support has not changed. And the Academy’s commitment to its mission to serve the public and U.S. actuarial profession has not changed.”

Wildsmith, who became president during the Academy’s 50th year in 2015, said the Academy has “held up quite well” in the past decade, and over its history. “Social Security and Medicare’s financial challenges are well understood, as are the demographic trends driving them. Those technical challenges are all actuarial in nature. The fact that we understand the financial challenges facing these programs is due to the hard work of the government actuaries who perform the calculations that underlie the annual [Medicare and Social Security] trustees reports.”

He added that “solving Social Security and Medicare’s financial problems isn’t a purely actuarial exercise—it will require the political will to make some difficult choices.”

Making an Impact

Zimpleman, who spent his entire 45-year career with Principal in Des Moines, Iowa, including as chairman and CEO from 2008–2016, said that, “Outside of my company, joining the

Academy was the most impactful thing in my career. I’m a big believer in volunteering and getting involved [with actuarial organizations]. My personal preference was the Academy, because the challenge with the Academy as a public interface was taking the fairly complicated world of actuarial science and communicating it to those who have an impact on our work but don’t have the technical grasp. That’s hard, but it’s very fulfilling when you’re able to do that.”

Following the historic passage of the Employee Retirement Income Security Act of 1974, better known as ERISA, there was at least one piece of retirement legislation every year from the early 1980s and into the 2000s. (The Academy held an “ERISA at 50” symposium in 2024 examining the milestone law’s legacy; see the timeline on page 20.)

“There was a lot of activity by the Academy in the retirement space—and in other areas—too, to engage in this legislative interface and get to a much better place, whether it was life insurance or pension regulation, or whatever it may be,” he said.

By the time Zimpleman became president in 1996, the profession had grown to be more global, with the U.S. and the Academy interacting with countries including the U.K., Canada, and Australia. In 2017, the Academy jointly released a retirement readiness study with the U.K.’s Institute and Faculty of Actuaries and the Actuaries Institute of Australia showing that many people in the three nations struggle with retirement preparation for similar reasons.^[3]

“Some countries were on a different page with disciplinary issues,” Zimpleman said, “and there was a tremendous amount of work put forward to standardize codes of conduct and standards of practice—the question was, do most codes of conduct look like ours?”

Professionalism Counts

Each past president noted the importance of the work the Academy does in the professionalism sphere and the actuarial profession’s independence as a self-regulating profession.

Coggins has had extensive professionalism experience in her time at the Academy, having served for six years on the ASB, including two as chairperson. She is currently chairperson of the Committee on Qualifications and was a presenter in the Academy’s recent professionalism webinar in September.

The importance of our work to the millions of individuals, families, and businesses who rely on the products and programs we support has not changed. And the Academy’s commitment to its mission to serve the public and U.S. actuarial profession has not changed.

Coggins noted that actuaries are guided by the Code; in particular, its Precept 1, which requires an actuary to act honestly, with integrity and competence, and in a manner to fulfill the profession's responsibility to the public and to uphold the reputation of the profession.

"As a profession, the work performed by any actuary could pose a reputational risk for any actuary," she said. "The Code, the USQS, and the ASOPs [actuarial standards of practice] promulgated by the ASB all work together to guide the actuary toward fulfilling our individual obligations to our principles and the profession," Coggins said. "When there are questions in the course of our work—or we see work performed by another

actuary that we believe may violate this responsibility—we can turn to the ABCD [Actuarial Board for Counseling and Discipline] for additional guidance.

"This framework of professionalism has served actuaries well over the years—and given the rapid rise in actuarial use of AI, it will continue to be of vital importance for actuaries as we uphold our commitments to the profession as a whole, and to each other," she said.

Coggins said that when the ASB was developing the modeling ASOP's first draft (ASOP No. 56, *Modeling*, which took effect in 2020 and affects all practice areas), actuaries were already beginning to use and develop simpler forms of AI models. The

Highlights From the Past 10 Years

Following are some of the Academy's key milestones in the past 10 years, since the *Charting the Course* book was released in 2015, marking its 50th anniversary. The book remains available from the Academy—order at actuary.org/50.

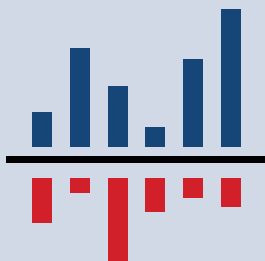
2015

- Actuarial Standards Board holds public hearing on retirement issues in Washington



2016

- Actuaries Climate Index (ACI—developed jointly by the Academy, the Casualty Actuarial Society, the Canadian Institute of Actuaries, and the Society of Actuaries [SOA]), and Actuaries Longevity Illustrator (ALI—developed jointly by the Academy and SOA) released



2017

- Retirement Readiness: A Comparative Analysis of Australia, the United Kingdom & the United States—a report released by the Academy, the Institute and Faculty of Actuaries (U.K.), and the Actuaries Institute of Australia

2018

- Uses of Catastrophe Model Output flood insurance monograph released (later updated)



2019

- Academy hosts Capitol Hill briefing for federal lawmakers and staff, giving an actuarial perspective on telehealth issues, a growing practice



2020

- COVID-19—Academy releases multiple issue briefs and Q&As, and hosts a Capitol Forum webinar around the pandemic's impact on multiple practice areas
- Academy releases Actuaries Climate Research Index (ACRI)

2021

- Cyber Risk Toolkit released by Academy Committee on Cyber Risk
- Actuary Voices and Member Spotlight offer more platforms for Academy members' actuarial perspectives and diverse formats for members and stakeholders

ASB wanted the standard to apply to all actuaries and to be relevant across all types of modeling. That relevance persists today, even as the use and application of AI continues to evolve and become more entrenched in society and the actuarial profession. You can learn more about such relevance in a 2024 Academy white paper, *Professionalism Considerations for GenAI*.^[4]

“We didn’t want to carve out any particular type of modeling, so we tried to be very thoughtful about the actuary’s obligations,” she said. “And the idea of not having blind reliance [on AI]—when we think today about our use of generative AI, the modeling standard actually requires an actuary, when they are relying on a model developed by others, to have a certain level of

knowledge about that model. It isn’t an extremely high bar, so if I’m using a generative AI tool ... it is vitally important that the actuary has that level of knowledge and takes that responsibility.”

Wildsmith noted that “building and maintaining the infrastructure necessary to professionalize the U.S. actuarial community is not just one goal among many for the Academy—it is the core reason the Academy was originally established. As actuaries, we have a collective responsibility to the American public. The Code defines our individual responsibilities to our clients and employers, our fellow actuaries, and the public, and the USQS define what competency means for an actuary by answering the question, ‘Am I qualified to undertake this actuarial job?’”



2022

- Academy introduces “This Week In a Minute” and other short videos offering summaries of the Academy’s work and weekly work-product updates in a quick, easy-to-access format

2023

- Social Security Challenge released, offering the public a way to review and experience a variety of potential funding and reform solutions
- Academy hosts health equity symposium for members and stakeholders
- Academy Learning launched—a one-stop source for continuing education, knowledge resources, and member-only content like webinar recordings

2024

- Academy membership tops 20,000
- Academy introduces new competency framework
- Academy holds “ERISA at 50” retirement symposium for members and stakeholders
- “Professionalism and the Academy” video receives a Viddy award from the Association of Marketing and Communication Professionals
- Volunteer Satisfaction Survey identifies opportunities to enhance volunteer experience in support of fulfilling the Academy’s mission



2025

- The Academy turns 60
- Academy launches new and improved Actuary.org website



- Academy launches Academy Connect—a virtual community and one-stop source for volunteers to collaborate virtually on Academy work products
- Academy Insights—a new quarterly newsletter for stakeholders to be aware of and access Academy tools and resources—launches
- The Academy’s latest Member Value Survey identifies members’ key areas of interest and improvement opportunities
- Academy introduces new membership requirements for new members effective January 2026



He added that the ASOPs help actuaries understand what it means to do their job well, and the ABCD provides assurance to the public that the profession is prepared to deal with professional misconduct within the profession's ranks.

Tools, Technology, and AI

Beuerlein noted the evolution of technological tools available to actuaries has expanded over the years—from paper and pencil to pocket calculators and mainframe computers, from personal computers to hand-held devices to AI, all in a relatively short period of time.

“Very importantly, the ability to easily communicate has improved significantly over the past 60 years,” he said. “At one time, an actuary might dictate a memo that was then transcribed, edited, and ultimately sent via the post office or interoffice mail. This process may have taken up to a week to accomplish. Today, communications are almost instantaneous, [and it remains] incumbent on actuaries to communicate clearly. A good actuary is one who can perform actuarial services and then effectively communicate this work to the end user.”

Each of these innovations has allowed actuaries to do better what they do best, Beuerlein said, “to use their training to deeply analyze sophisticated problems and not just crunch numbers. But with each of these innovations, actuaries had to learn not to rely totally on the numbers or analysis that came from a machine, but to challenge [that] machine analysis with their own critical thinking. Each innovation has allowed actuaries to spend more time thinking and less time doing manual calculations.

“Actuaries should be able to sort through machine analyses and determine if the information provided is valid,” he added. “As innovations like AI become more sophisticated, actuaries must diligently continue to use innovations only as tools that are aiding in understanding problems, and not as problem-solvers.”

Coggins, while also noting the benefits of AI and other emerging technologies, said actuaries have a very human role to play in promulgating professionalism and standards throughout their work.

“As actuaries, we know the benefits of AI, which increases efficiency to automate workflows and eliminates repetitive, non-value-added tasks—and to develop and use AI models that are able to tap into the



As innovations like AI become more sophisticated, actuaries must diligently continue to use innovations only as tools that are aiding in understanding problems, and not as problem-solvers.

insights offered by the vast array of data and information now available to actuaries,” she said.

But “importantly, actuaries must avoid blind reliance on AI in all circumstances, or in any circumstances,” Coggins said. “We all know the unique risks that arise from the use of AI. Actuaries must stay diligent in following ASOPs—including ASOP No. 23 on data quality, 41 on actuarial communications, and 56 on modeling—and ensure that there’s always a human in the middle before AI outcomes are delivered for use.”

“AI holds the prospect of much more sophisticated and accurate risk assessment,” MacGinnitie said. “When I started, we used age and gender for life insurance, then we added smoking status. With AI, much more accurate pricing is possible. Similar examples abound in other lines. The whole idea of insurance is to get each insured person or entity to contribute to the pool in accordance with the risk that they present.”

Zimpleman said that AI “is maybe the fourth iteration of something I’ve seen that people say, ‘This



will completely revolutionize the profession,' starting with computers in the 1960s and 1970s. I'm probably in the camp that will say AI is going to have a meaningful impact, but the gist of the profession is going to continue to be what it has been. My take is that AI is kind of a backward-looking thing because it adjusts the data it's been given.

"AI is a starting point ... [but] my responsibility as an actuary is to not only tell you where things have been in the past, but hopefully use my expertise to point you to where things are going in the future," Zimpleman said.

Volunteering—Getting Involved

The presidents cited the rewards of their volunteering experience at the Academy, which helped their careers and professional development, their connectedness to the profession, and even their employers.

Coggins said she started volunteering for the Academy when she joined a newly formed work group focused on risk management, and immediately appreciated that she was able to work across practice areas and share ideas across multiple areas, including casualty and risk management and financial reporting.

"To me, volunteering for the Academy offered different opportunities than those offered by my day job," Coggins said. "It's where a group of like-minded actuaries, often peers, could band together to create great content that was useful both for Academy stakeholders as well as the profession.

"After my early volunteer experiences, I was then fortunate to serve on the Academy Board as RMFRC [Risk Management and Financial Reporting Council] vice president, and then for six years on the ASB, and again as president. My volunteer experience helped me to become an even better actuary, which further benefited my employer and my clients—so I'm truly grateful for our profession and for my volunteer experiences," she said.

Coggins called the Academy's work and outreach with outside groups, including public officials like lawmakers and regulators, "incredibly important, principally for the Academy to serve its stakeholders, given its mission to serve the public and the actuarial profession.

"By advancing professionalism and informing public policy—and enhancing member value—in particular, given its unique role as the voice of the U.S. actuarial profession, the Academy's relationships with

its stakeholders at all levels of government become even more essential for the purpose of fulfilling our mission," she said.

"Serving as an Academy volunteer has been the highlight of my professional career—and has been a personal pleasure as well," Wildsmith said. "I have been able to work on issues that I would never have encountered in my day job, and met people I would otherwise never have come in contact with. I have had the privilege of working with dedicated Academy staff, who have a remarkable commitment to a profession that is, in most cases, not their own."

He added that "the Academy has taught me what it means to be a professional and has enhanced my career. It has also given me the opportunity to give back to the profession—an opportunity that's available to every Academy member who's willing to commit the time and energy to begin volunteering."

Zimpleman said that while he was still early in his career, around 1981, his chief actuary asked if he would like to get involved with an Academy committee. "Little did I know that was one of the most impactful things in my career, in every way, shape, and form! Within a few years I found myself testifying before Congress, rubbing elbows with people whose names I knew and had tremendous respect and appreciation for. When I became president of the Academy in 1996, it was almost unbelievable. I look back on all of that with very positive feelings," Zimpleman said.

He said he found it both interesting and challenging, because actuaries operate in a very technical field, "and you're trying to explain what we do—whether to Congress or a newspaper editor—and why it's important." Meeting members of Congress—and even presidents, at National Retirement Summits, which he attended twice—were some of the beneficial outcomes of his volunteer roles. "It's the Academy that gets you that exposure and experience," he said. ▲

MICHAEL G. MALLOY is managing editor for member content at the Academy.

Endnotes

- [1] *Charting the Course*; American Academy of Actuaries; 2015.
- [2] *Ibid*, p. 43.
- [3] *Retirement Readiness: A Comparative Analysis of Australia, the United Kingdom & the United States*; American Academy of Actuaries, Institute and Faculty of Actuaries (U.K.), and the Actuaries Institute of Australia; 2017.
- [4] *Actuarial Professionalism Considerations for Generative AI*, reprinted in *Contingencies*, November/December 2024.

Professionalism *in Practice*

Why self-regulation matters—and how actuaries at every career stage play a vital role in maintaining the integrity and trust of the profession.

By Virginia Hulme



Editor's Note: This is the first in a two-part series exploring professionalism in the actuarial profession. Be sure to read the second part, which will examine the challenges to professionalism, in the January/February 2026 issue of *Contingencies*.



A S A SELF-REGULATED PROFESSION, the actuarial profession relies on its members to uphold high standards of conduct, qualifications, and practice—and to help enforce those standards when they are not met. Over the last few decades, the actuarial profession has developed a strong framework to help actuaries maintain a high level of professionalism: the Code of Professional Conduct, U.S. Qualification Standards (USQS), actuarial standards of practice (ASOPs), and a counseling and discipline process. Impressively, all of these have been created by—and are being maintained by—devoted volunteers. But beyond those dedicated volunteers who spend many hours each year ensuring the standards keep up with changes and help actuaries meet them, every actuary has an important part to play in upholding professionalism and thus self-regulation.

Professionalism: Key to Public Trust and Self-Regulation

The actuarial profession has remained largely self-regulated because the public can trust it to do the right thing. “Professionalism is foundational to the actuarial profession—it’s what builds trust, ensures accountability, and upholds the integrity of our work,” says Laura Hanson, vice chair of the Actuarial Standards Board (ASB). “As actuaries, we’re often relied upon to provide objective, data-driven insights that influence major financial decisions. Without a strong commitment to professionalism, trust can quickly erode.”

One of the main benefits of self-regulation is that it allows the profession to respond to change rapidly and effectively. “The work that we do as actuaries is very technical, such that the standards that guide our work need to be intimately understood by those writing those standards,” says Michelle Iarkowski, vice chair of Committee on Property and Liability Financial Reporting

(COPLFR) and ASB Casualty Committee member. “By creating our own standards for entry to the profession, execution of actuarial services, and enforcement of those standards, we enable knowledgeable individuals to swiftly react to changes in the industries and environments in which we operate. For example, it is easier and faster for the actuarial profession to revise an ASOP than it would be to change a law set by an outside party.”

The expertise that makes actuaries best placed to write standards for the profession is also the reason actuaries are best placed to enforce them. “The Actuarial Board for Counseling and Discipline (ABCD) is another great example of why self-regulation is valuable, in that fully qualified, experienced

actuaries are the ones assessing whether an actuary has met the profession’s standards in performing actuarial services,” Iarkowski adds.

The benefits of self-regulation depend on actuaries upholding professionalism. “Self-regulation is a privilege that reflects the trust that society places in actuaries, and we must hold ourselves and each other accountable so we can keep that trust and preserve the privilege,” Hanson says.

On the flip side, actuaries have seen what happens to a profession when self-regulation is lost. “If we don’t regulate ourselves as a profession, someone else will,” says Yukki Yeung, member of the Committee on Professional Responsibility (COPR). “We’ve seen this in other industries, where a lack of internal oversight

Self-regulation is a privilege that reflects the trust that society places in actuaries, and we must hold ourselves and each other accountable so we can keep that trust and preserve the privilege.

—Laura Hanson



led to external intervention by federal or governmental bodies. That often brings more rigidity and less nuance, especially when the regulators aren't part of the profession and may not fully understand its complexities."

Tim Geddes and Darrell Knapp have both seen this occur during their careers. Geddes, an ABCD member and former vice president, Professionalism, says that he witnessed "both secondhand (through my employer) and more closely (through the creep of pension regulation) the impact that diminished self-regulation can have on the effectiveness, success, and overall experience of professionals."

Academy President and former ASB Chairperson Darrell Knapp, who worked for a large public accounting firm when that profession went from largely self-regulated to largely regulated, echoes that view. While abuses had occurred and needed to be addressed, he says, regulation often resulted in inefficient use of resources solely to comply with regulation and in suboptimal decisions that were safer in the regulatory environment. He stresses that abuses within a profession can lead to losing self-regulation—and that is why reporting possible violations of the Code to the ABCD is so important.

He urges fellow actuaries to "recognize that being an actuary is a wonderful profession and a privilege that requires constant vigilance. Remember the old adage that 'one oops offsets one hundred attaboys.'"

Actuaries, Professionalism, and the Nation's Financial Security

Many actuaries initially joined the profession because they were good at math and enjoyed using their math skills to solve business problems. But as they progressed in their careers, including serving as Academy volunteers, some actuaries became more aware of and have gained a deeper understanding of the importance of actuarial work to not just their employers and clients, but to society as a whole and the U.S. financial system in particular.

"The more work I have done with the Academy, the more I have understood the critical role that actuaries play in supporting the public," says Tricia Matson, Academy president-elect and a former ASB chairperson. "We are the backbone of financial security systems, including an array of private insurance products as well as public financial security programs.

The public needs us to ensure that those programs are sound, so that people receive their benefits when they truly need them. In light of this critical role, having a strong Code of Professional Conduct and actuarial standards of practice is critical."

It is not a stretch, then, to say that actuarial professionalism is vital to the stability of the U.S. economy, companies, and individuals. The work of actuaries helps provide a financial safety net for individuals, businesses, and other organizations. When she meets someone who doesn't understand what she does, Iarkowski explains that her "job as a P&C reserving actuary is to make sure that on someone's worst day, when their house burns down or when their loved one is in a car accident, that the one thing they don't have to worry about is if their insurance company can pay their claim."

Actuaries—and how they uphold professionalism—play an important role in ensuring that the organizations that provide financial security to all Americans remain solvent. "The standards that enable actuaries to maintain professionalism also help us to uphold our commitment to the public," Iarkowski says. "These concepts have become more important to me as I've progressed in my career, and feel the weight of the responsibility I bear every time I sign my name to my actuarial judgments, conclusions, and disclosures."

A Deeper Understanding of Professionalism Comes with Experience

All credentialed actuaries in the United States who are members of any of the five U.S.-based actuarial organizations—the American Academy of Actuaries, American Society of Enrolled Actuaries, Casualty Actuarial Society, Conference of Consulting Actuaries, and Society of Actuaries—are bound by the Code of Professional Conduct. Through the Code, these actuaries who practice in the U. S. are also bound by the *Qualification Standards for Actuaries Issuing Standards of Actuarial Practice in the United States* (U.S. Qualification Standards or USQS) issued by the Academy, the ASOPs issued by the ASB, and the ABCD's counseling and discipline processes.

While basic education provided by the credentialing organizations includes some professionalism education, a deeper understanding tends to grow with experience.

Why Volunteer for Professionalism?

Tim Geddes, an ABCD member and former vice president,

Professionalism: Initially, I volunteered for, and eventually served as vice president of, what is now the Retirement Practice Council. I appreciated the Academy's active involvement with decision makers in the regulatory and legislative communities. Meanwhile, I also observed that our credibility with those stakeholders relied on the profession and the Academy's reputation. That realization kindled a desire to work more actively to advance the professionalism part of the Academy's mission.

Laura Hanson, vice chair of the Actuarial Standards Board (ASB): I was drawn to join the ASB because I value self-regulation in the actuarial profession. Serving on the ASB allows me to contribute to the standards that guide our work and ensure that we remain trusted advisors. It also provides an opportunity to collaborate with peers from all practice areas who are equally committed to upholding appropriate standards.

Joyce Hwu, a member of the task force revising ASOP No. 30: I had been volunteering with the Casualty Actuarial Society for a few years as an exam grader when a fellow volunteer presented an opportunity to join a task force under the ASB Casualty Committee. I always appreciate when experienced professionals are willing to lift up the next generation and was also curious to learn more about the Academy's work.

Michelle Iarkowski, vice chair of Committee on Property and Liability Financial Reporting (COPLFR) and ASB Casualty Committee member: I began volunteering for the Academy through COPLFR in 2019, right around



the time the National Association of Insurance Commissioners (NAIC) was finalizing the new qualification requirements for P&C Appointed Actuaries. After working with COPLFR on these new requirements, a friend recommended that I join the task force that had been formed to revise ASOP No. 36, *Statements of Actuarial Opinion Regarding Property/Casualty Loss, Loss Adjustment Expense, or Other Reserves*. From there I went on to join the ASB Casualty Committee, and I continue to work with COPLFR as vice chairperson. I really enjoy the opportunity to work with colleagues across the profession and shaping the standards that help to govern our service to the public.

Darrell Knapp, Academy president and former ASB chairperson: I have loved being an actuary—we are a volunteer-driven profession from accreditation to qualification to standard setting to discipline, and I feel the need to give back to a profession that has given so much to me. I am also called to volunteer as part of my Christian faith. As to why the ASB, I initially worked on a rewrite of an actuarial standards of practice (ASOP) I used regularly in my work, ASOP No. 28, *Statements of Actuarial Opinion Regarding Health Insurance Assets and Liabilities*. In my role at a big accounting firm, I recognized the importance of strong actuarial standards and how they often gave me the backbone to do

the right thing, even when I was asked to take another approach. As such, I was happy to accept when asked to become a member of the ASB. Being on the ASB has been my favorite volunteer role in the actuarial profession.

Judy Liu, COPR member: I am currently a member of the Academy's Committee on Professional Responsibility (COPR), and it feels like a natural fit. I like the actuarial profession, and professionalism is a crucial aspect of our daily practice at work. I have learned so much from other COPR members.

Tricia Matson, Academy president-elect and a former ASB chairperson: I feel obligated to give a shout out to a great steward of our profession and professionalism, Godfrey Perrott. I had interacted with Godfrey on a consulting engagement, and based on that interaction, he recommended me for the ASB. While I was an Academy volunteer, I had not done a lot of professionalism work before that. It was career changing for me!

Yukki Yeung, COPR member: I've always been interested in the evolving landscape of actuarial professionalism, especially in relation to emerging areas like artificial intelligence and data privacy. Joining COPR felt like the right opportunity to deepen my understanding and contribute to shaping guidance in these important areas.

“Over time, my understanding of professionalism has grown and evolved,” says Judy Liu, COPR member. “Initially, I followed in the footsteps of senior actuaries I worked with. As I gained experience, I became more independent and developed a deeper understanding of ASOPs. Eventually, I took on the responsibility of guiding others. My volunteer work with the Academy has further enriched my understanding of professionalism.”

“Professionalism is a skill, which means it must first be learned and then continue to be improved through practice,” says Joyce Hwu, a member of the task force revising ASOP No. 30, *Treatment of Profit and Contingency Provisions and the Cost of Capital in Property/Casualty Insurance Ratemaking*. “I used to think an ethical decision was something that could be logically deduced and the ‘right’ answer too obvious to ignore. With time (and less naïveté!), I began to understand that context matters.”

“Early in my career, I thought of professionalism mainly as following the rules and meeting technical standards,” remembers Yeung. “But over time, I’ve come to see it’s much more nuanced than that. Many situations aren’t black-and-white—they’re full of ambiguity, competing priorities, and ethical

gray areas. Professionalism, in those cases, means having the courage to pause, reflect, and sometimes speak up—even when it’s uncomfortable. My work in internal audit has deepened that perspective. I’ve seen how critical it is to maintain independence, ask difficult questions, and be guided by principles rather than convenience.”

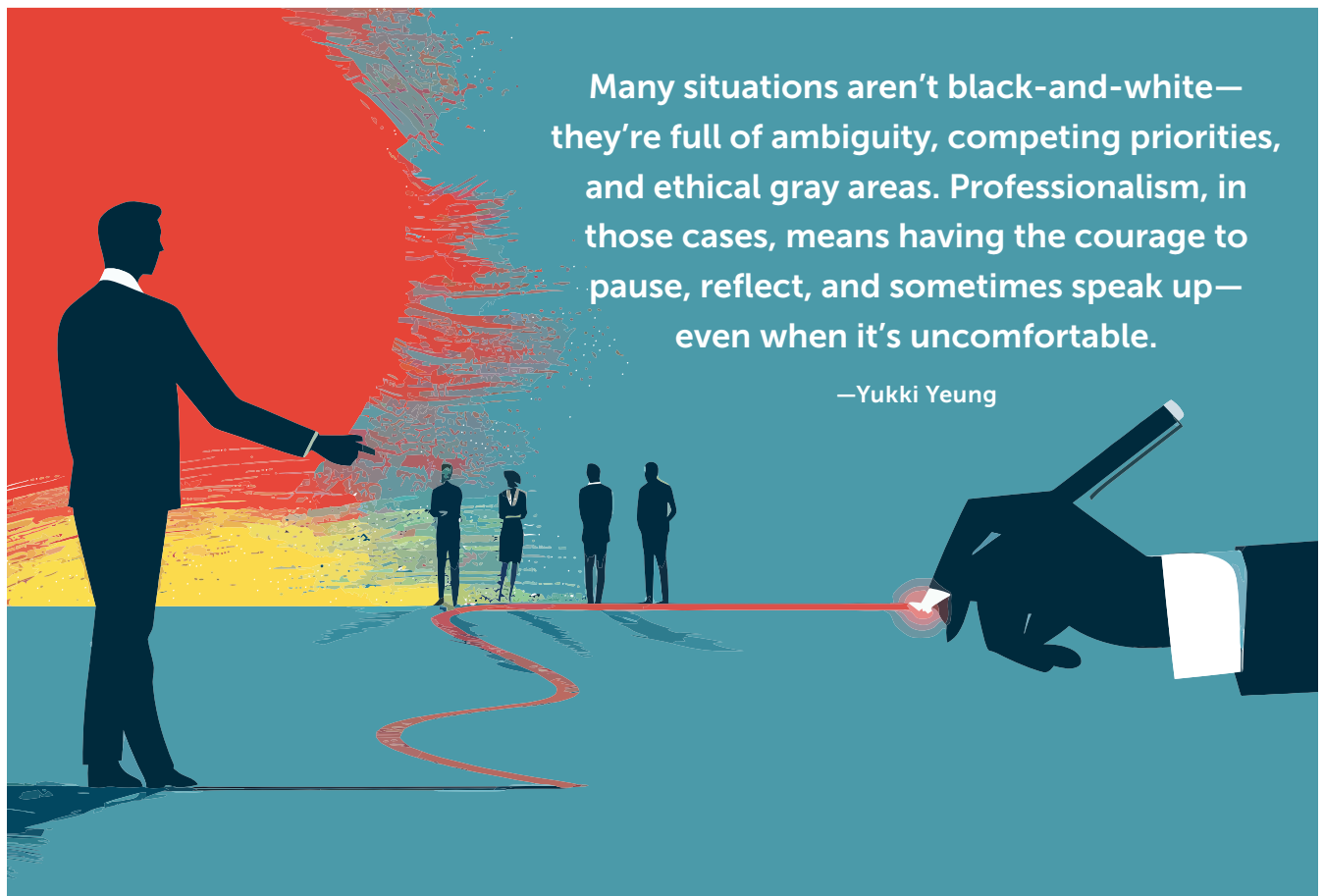
Advancing Your Professionalism

So, then, how do individual actuaries uphold professionalism? First and foremost, actuaries meet their continuing education requirements. “The professional landscape is ever-changing; to advance one’s own professionalism, one must be open to changing approaches, learning new things, and acknowledging that what you just changed may need to change again as we continue to advance,” says Geddes.

Keeping up with changes in the ASOPs is important, as the ASB has revised quite a few ASOPs in recent years. Consulting the Code often is another common habit. “I keep a pocket-sized copy of the Code, which I call the ‘little blue book,’ by my work laptop,” says Liu. “This habit has been with me for many years and was first inspired by a senior actuary I worked with when I

Many situations aren’t black-and-white—they’re full of ambiguity, competing priorities, and ethical gray areas. Professionalism, in those cases, means having the courage to pause, reflect, and sometimes speak up—even when it’s uncomfortable.

—Yukki Yeung



was a new analyst. From time to time, we would refer to the little blue book for guidance and inspiration when faced with challenges.”

Professionalism can also involve seeking the wisdom and expertise of others. For example, Hanson seeks feedback from peers and mentors, especially when navigating complex or ambiguous situations, while Liu engages in open discussions with other actuaries about professionalism to gain more perspectives and avoid blind spots.

Professionalism is not something to check off once a year, but an ongoing practice. Yeung tries to stay current with the Academy’s discussion papers, especially on emerging topics like artificial intelligence (AI) and algorithmic fairness. “Serving on the COPR has been a great reminder that professionalism isn’t static—it evolves with new technologies, risks, and societal expectations,” she says. She also seeks “conversations—with peers, students, or mentors—that challenge my assumptions. Whether in an internal audit review or in the classroom, I’ve learned that professionalism shows up in the questions we ask, the judgment we apply, and how we handle disagreement.”

Senior actuaries play an important role in encouraging the actuaries they supervise to uphold professionalism, often by modeling the behavior they’d like to see. “I try to lead by example—not by having all the answers, but by being willing to ask thoughtful questions and admit when something isn’t clear,” says Yeung. “I often invite colleagues to pause and consider the ‘why’ behind a process or assumption. I also try to normalize the idea that it’s wise to revisit the Code or consult a standard when something feels off.”

Being open to questions and discussion is vital. “Most important for experienced actuaries is to be open to discussions with less experienced actuaries, to truly listen to any concerns they might be experiencing, and to respond transparently, empathetically, and clearly,” says Geddes.

Hwu echoes that sentiment, saying “Communication is key, specifically by taking an interest in others’ work and building trust so everyone knows there is always a safe place to ask difficult questions.”

When weaving professionalism considerations into her conversations with younger actuaries, Iarkowski likes to focus on the documentation requirements of ASOP No. 41, *Actuarial*

Communications. “I really see this as the cornerstone of producing documentation—can another similarly qualified actuary clearly follow what you did from start to finish? In my experience, if this is the starting point for your documentation, many of the other documentation and disclosure requirements are naturally covered by this approach,” she says.

The ABCD is a great resource for gray areas. Any actuary can reach out for a confidential consultation with an actuary knowledgeable in the subject matter.

—Tricia Matson

Gray Areas—Where Real Professional Judgment Lives

Gray areas and other difficult situations are where professionalism is most important.

When finding yourself in a professionalism gray area, actuaries advise first revisiting the Code, relevant ASOPs, and the USQS to see what guidance exists. Even after consulting professionalism resources, answers are not always clear, so it’s important to be willing to ask questions. “If something feels off, don’t ignore it. Ask questions,” advises Yeung.

Talking to colleagues and mentors is helpful, as is the ABCD’s request for guidance process. “Don’t be afraid to make a request for guidance!” Matson says. “The ABCD is a great resource for gray areas. Any actuary can reach out for a confidential consultation with an actuary knowledgeable in the subject matter.”

When working in gray areas, Hanson recommends that actuaries “thoroughly document your approach, properly disclose your findings, and utilize peer review.” Hwu also suggests seeking diversity of thought, noting, “Studies have shown that diversity of thought leads to better decision-making and outcomes. That includes even the people you haven’t seen eye-to-eye with in the past. You never know: it may turn out to be a learning moment for everyone.”

“Don’t be afraid of gray areas—where real professional judgment lives,” Yeung advises. “You won’t always find a clear answer in a textbook or standard,

What's Your Favorite Professionalism Resource?

Tim Geddes, a member of the Actuarial Board for Counseling and Discipline (ABCD) and former vice president, Professionalism: Picking a most useful resource is somewhat like picking a favorite tool in tool cabinet. A hammer is great for pounding in nails, but it is considerably less useful when approaching a screw. I believe the full body of resources is essential to truly guide our professionalism. I tend to view the Code of Professional Conduct (Code) as akin to the constitution—helpful with the biggest and broadest questions. I think of the ASOPs like laws that explain how to practice. The U.S. Qualification Standards (USQS) provide a better understanding of which “licenses” we have earned (you wouldn’t want someone licensed only in barbering to file your taxes). Practice notes, professionalism discussion papers, and the USQS FAQs are akin to regulatory guidance when you haven’t found the precise answer in the standards. The ABCD provides an opportunity for one-on-one support through the request for guidance, but it also stands ready to fulfil a quasi-judicial function when needed. The entire structure is necessary to advance professionalism to the level we have achieved.

Laura Hanson, vice chair of the Actuarial Standards Board (ASB): The actuarial standards of practice (ASOPs), because they provide multiple benefits. First, ASOPs make us better actuaries, because they provide a basis for assuring that our actuarial services will conform to appropriate standards. Second, ASOPs bolster the reputation of the actuarial profession, because they assure the public that we are acting in the public’s interest and are held professionally accountable. Third, ASOPs can help protect actuaries in contentious situations, because they offer evidence of appropriate professional performance in the event of a dispute.

Joyce Hwu, a member of the task force revising ASOP No. 30: *Contingencies* magazine, particularly the “Up to Code” articles. These regular reminders covering Code precepts and how to use the Academy’s professionalism resources within real-life scenarios are a way to stay up to date.

Michelle Larkowski, vice chair of Committee on Property and Liability Financial Reporting (COPLFR) and ASB Casualty Committee member: The USQS FAQs! There are so many practical questions on that list, especially related to continuing education, that really help to clarify the requirements laid out in the USQS.



Darrell Knapp, Academy president and former ASB chairperson: All of them, because they don’t stand separately but fit together cohesively. I probably spend more time in the ASOPs than the Code or practice notes. The Applicability Guidelines is a great place to start when you don’t know what ASOPs apply.

Tricia Matson, Academy president-elect and a former ASB chairperson: I have the ASB shortcut on my phone so that I can look up the Code and ASOPs from anywhere, anytime. The Applicability Guidelines, which help actuaries determine which standards apply to which types of work, are very helpful.

Yukki Yeung, member of the Committee on Professional Responsibility (COPR): When I was newer to professionalism topics, the “Professionalism Counts” newsletter and discussion papers helped make abstract concepts more relatable. The real-world examples brought the Precepts to life and made them easier to apply. As I took on more senior roles, I found myself turning to ASOPs more frequently. Finally, the ABCD resources—especially the request for guidance—knowing there is a confidential and safe space to talk through complex or sensitive situations is reassuring.

I recognized the importance of strong actuarial standards and how they often gave me the backbone to do the right thing, even when I may have been asked to take another approach.

—Darrell Knapp



and that's okay. What matters is how you think through the situation, what questions you ask, and who you turn to for perspective. This isn't like studying for actuarial exams—there's no perfect answer in the back of the book. Sometimes, it's about making the most responsible decision with the information you have and being ready to explain your reasoning."

Other Difficult Situations

Sometimes you may find yourself in a situation where you know the right answer, but you are asked to do something else. During such times, the Code, ASOPs, and USQS can provide a bulwark of support. Geddes notes that he came to rely more heavily on the Code as he progressed in his career and the questions with which he wrestled became "less black-and-white and 'bigger' in nature." Knapp recalls providing actuarial support to audit clients who sometimes developed a liability balance he thought was inappropriate. At such times, he could refer to provisions in ASOPs to explain why. "I recognized the importance of strong actuarial standards and how they often gave me the backbone to do the right thing, even when I may have been asked to take another approach," he says.

If Matson sees work that may not comply with the standards, she refers to the Code and ASOPs. "Every actuary has a responsibility to ensure actuarial work

meets the Code and standards—if I see a material, apparent, and unresolved violation of the Code or standards I have to report it to the ABCD" she says. "Fortunately, I only had one example in which the issue could not be resolved and therefore required reporting."

Everyday Professionalism

Several actuaries mention referring to the Code and ASOPs frequently. "I do this most days!" says Matson. "The Code and the ASOPs are not there for 'problem' situations. They guide my daily work. Every time I prepare a work product, I review the standards that apply to that work product."

While she hasn't had a single dramatic moment where she had to rely on the Code to navigate a crisis, Yeung has faced moments of uncertainty, especially when working on cross-functional teams where actuarial judgment intersects with business strategy, internal audit, or data science. "In those situations, I've often revisited the Code and relevant actuarial standards as a reference—not because I was in trouble, but because I wanted to make sure I was very familiar with it," she says. "For example, when reviewing actuarial models in an internal audit setting, I've leaned on Precept 1 (integrity), Precept 3 (standards of practice), and Precept 8 (control of work product) to guide how I frame my findings and ensure my critiques are fair, accurate, and professionally sound. Even when the standards don't give a black-and-white answer, they offer a grounding framework."

Doing the Right Thing

Ultimately, professionalism is about doing the right thing, especially when no one is watching, says Yeung. "Professionalism isn't about knowing everything—it's about being willing to pause, reflect, and choose the responsible path, even when it's not the easiest one. Being an actuary carries a public trust, and I take that seriously. Every decision we make, every judgment we apply, can have a real impact on people's financial lives."

Hanson echoes this sentiment, saying, "Acting honestly, with integrity and competence, means doing the right thing—even when it's not the easiest path—but you have the support of the actuarial profession behind you." ▲

VIRGINIA HULME is the Academy's assistant director of professionalism.

American Academy of Actuaries

New Membership Requirements 2026

What are the new requirements?

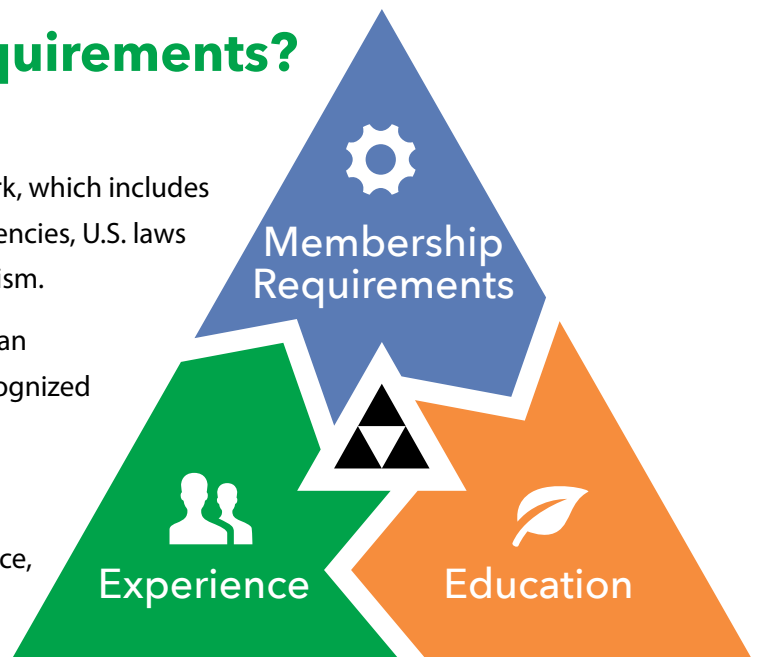
Education

Compliance with the Competency Framework, which includes baseline knowledge of key actuarial competencies, U.S. laws and practices, and U.S. actuarial professionalism.

Achievement of an actuarial credential from an actuarial organization, both of which are recognized by the Academy.

Experience

Three years of responsible actuarial experience, including at least one year of responsible U.S. actuarial experience.



Why it matters

The new requirements will be effective **starting Jan. 1, 2026**, and aim to ensure that the Academy continues to maintain high standards in support of fulfilling its mission to serve the public and the U.S. actuarial profession.

Visit actuary.org/membership-requirements to read our FAQ and learn more.



AMERICAN ACADEMY
of ACTUARIES

"With these new requirements, Academy membership will continue to represent the expertise and professionalism expected by our stakeholders in our ever-changing environment."

—Lisa Slotznick, Academy President (2023-24)

A Steady Hand



Throughout his tenure on the Actuarial Board for Counseling and Discipline—including one year as chairperson—William C. Hines has offered measured, thoughtful leadership. As he continues his term as chairperson, Hines reflects on guiding the profession through ethical complexity, expanding the use of requests for guidance, and preparing for challenges ahead.

With a career spanning financial reporting, regulatory accounting, and international actuarial leadership, William C. Hines, MAAA, FSA, Actuarial Board for Counseling and Discipline (ABCD) chairperson, brings a broad and nuanced perspective to actuarial professionalism. A principal and consulting actuary in Milliman's Chicago office, Hines has advised life insurers across the United States, Bermuda, and the Cayman Islands.

Hines has served on many Academy volunteer committees, councils, and task forces, including the Financial Reporting Committee and Risk Management and Financial Reporting Council, the Financial Regulatory Task Force, and International Accounting Standards Task Force, all of which he chaired. He also was a member of the Council on Professionalism and Education, the Nominating Committee, and the Life Financial Soundness/Risk Management Committee.

Since joining the ABCD in 2021, Hines has applied that depth of experience to one of the profession's most critical functions: self-regulation. As he continues his two-year term as ABCD chairperson, *Contingencies* caught up with Hines about what he's learned, the importance of requests for guidance (RFGs), and the challenges and opportunities he sees on the horizon—from artificial intelligence (AI) to climate change.

Since joining the ABCD in 2021 and now concluding your fifth year of service, what has surprised you most about ABCD's work and its role in the actuarial profession?

I have been pleasantly surprised by the number of RFGs that we continue to receive. More and more actuaries are becoming aware of this resource, and I see it as really



helping them with their work. I would love to see more people take advantage of this resource.

At the other end of the spectrum, I have also been surprised by the number of situations where a complaint might be warranted, but the complainant is blocked from doing so because of confidentiality. This is something I worry about when it comes to the profession—that poor work is not coming to light because of these constraints. I fear that one day, when such work will be disclosed, the profession will be questioned as to why it did not do anything about it.

How has serving on the ABCD shaped your own perspective on professionalism and ethical decision-making?

I think my time on the ABCD has helped me appreciate the need for clear disclosure and transparency in what we do as actuaries. A number of issues I have seen come up through the RFG or complaint process involve the need for further documentation or the lack of documentation of certain items such as the intended use of the work product, who is responsible for the underlying assumptions, and even who authored the work. I have come to appreciate how well the Code of Professional Conduct and the actuarial standards of practice (ASOPs) address these issues, and I have applied those learnings in my own work products, and in the advice I give to colleagues and during RFG discussions.

What qualities make someone well-suited to serve on the ABCD?

There are a number of qualities that I think are useful in an ABCD member, chief of which is a real interest in seeing the profession thrive. A lot of ABCD members mention that they expressed interest in becoming members because they want to give back to the profession. Other qualities such as being a good listener and not making assumptions about a person's motivations are also very important. Whether it is an RFG or reviewing a complaint it is important to keep an open mind and ask questions about the perspectives of the actuaries involved. Very often we find information that had not been previously brought to light and that can change how you might view the situation at hand.

What have you learned from your fellow ABCD members over the years?

We have had a great group of members during my time on the ABCD. Some of them I knew prior to joining the ABCD, but many others have been new to me. Each of them brings a wealth of experience. I am always learning new things.

My professional experience has been in the life and annuity practice area, which involves primarily long-duration products. And while I have spent many years working on cross-practice issues through my volunteer work at the Academy and the International Actuarial Association, I have learned a lot through my ABCD colleagues about the issues involved in short-duration products and the regulation of those products. Being able to appreciate the differences from my own experience and the different pressures that actuaries in such markets might face has helped me during our deliberations of issues, responding to RFGs, and in giving presentations and webinars I've participated on professionalism issues.

The Code of Professional Conduct, the U.S. Qualification Standards, and the actuarial standards of practice are essential elements of the actuarial profession's framework for self-regulation. Are these standards enough? How do you view the ABCD playing a role as part of self-regulation?

I believe that the Code, the U.S. Qualification Standards (USQS), and the ASOPs are the key foundation to our profession's self-regulation. But it is one thing to have these requirements and it is another to hold ourselves accountable for meeting them. The ABCD is the key tool of our profession in meeting those requirements. We need to hold each other accountable in order to meet our duty to the public and to safeguard the profession.

The ABCD's ability to investigate complaints involving members of any of the five U.S.-based membership organizations—as well as Canadian and Mexican actuaries working in the U.S.—is



the most effective process. Because ABCD members come from different practice areas and have different experiences, this allows for a fuller discussion and a thorough consideration of each issue with which we are presented. Having the ABCD serve the role as the investigatory body independent from the membership organizations makes the complaint review process fair and balanced.

In your view, does the ABCD provide a credible disciplinary process that's essential to maintaining the public's trust and the right of the actuarial profession to remain a self-regulated one?

Yes, the ABCD does provide a critical component of a credible disciplinary process that is essential to maintaining the public's trust and our profession's independence. If the ABCD did not exist, the functions we perform would still need to be done by the membership organizations when they receive a complaint. With the ABCD you get a consistent process for each complaint that is independent from the membership organizations. Because U.S. actuaries tend to be members of more than one actuarial membership organization, you get a more efficient process. The membership organizations are not beholden to ABCD's recommendations. They are free to conduct further inquiries and determine a course of action on their own. Still, the ABCD cannot do it alone. It is the responsibility of all actuaries to hold one another accountable. While the ABCD does initiate some complaints when we are made aware of information in the public domain, the vast majority of complaints come from individuals. If we are to really fulfill our mission to the public and maintain our self-regulation, we need to do more than say we have standards. We must live up to them, and that includes calling out work or conduct that does not meet our standards.

Besides answering requests for guidance, the ABCD's role is to investigate complaints and to recommend a course of action to the membership organizations.

Are there any misconceptions among actuaries about the ABCD's role or purpose?

The most common misconception I have found is that some actuaries believe that the ABCD imposes discipline on actuaries. This is not true. Only the membership organizations can impose discipline. Besides answering requests for guidance, the ABCD's role is to investigate complaints and to recommend a course of action to the membership organizations. It is up to them to decide whether to accept that recommendation or do something different.

For the first few years of the ABCD, there were fewer than 10 requests for guidance handled each year. This number increased over time to 2016, when the ABCD first handled over 100 RFGs in one year. Since 2016, the ABCD has consistently handled 100-plus RFGs. Why is that? And how important is this service to both new and experienced actuaries?

I believe the increase is mostly due to awareness of the RFG process. The ABCD has worked hard to highlight this resource through presentations, articles, and webinars. While I have seen mostly experienced actuaries use this resource, I

find that we can be quite helpful to people who are relatively new to the profession. I also think actuaries who are in smaller companies or are solo practitioners may benefit greatly as they often don't have many colleagues with whom they can have such conversations.

Are there any trends in the types of RFGs or complaints that the ABCD is seeing today?

Over the last 18 months or so, we have seen a wide variety of topics covered in RFGs. Approximately 30% relate to the USQS, another 12% involve Precept 13 of the Code, another 12% relate to dealing with other actuaries, regulators, or principals, and 10% relate to interpretations of various ASOPs. The remaining inquiries are spread across a wide range of topics.

ABCD members say that handling RFGs is one of the more enjoyable duties. Why is that?

RFGs can be quite rewarding because we are helping people. My experience—and that of others on the board—has been that at the end of the RFG conversation the actuary making the inquiry is better prepared to tackle the issue they are facing and that feels good. They appreciate the time we spend and the guidance we provide. It is not adversarial in any way. It is collaborative. And that makes the experience enjoyable.

As you enter your last year in 2026 on the ABCD, what are some key issues you see on the horizon?

Two things I see as being challenges for the profession and, thus for the ABCD, are artificial intelligence and climate change. The need for actuaries in financial security programs will continue to be strong, but the role actuaries serve and the focus of their work will likely change. Artificial intelligence is both seen as a threat and an opportunity. I tend to see it

more as an opportunity. Just like personal computers didn't replace actuaries in the 20th century, I don't believe AI will replace us now. It will change how we do our work, like in all industries, and it will be a challenge to understand how best to develop, validate, and utilize AI resources. That will challenge the ABCD in ways we have not yet contemplated.

Similarly, climate change will refocus much of what we have done in the past regarding predicting claims or even developing insurance and other financial security products. Again, this will be a challenge to the ABCD as those changes occur.

However, I feel that the Code of Conduct, the USQS, and the ASOPs that the ASB has and will develop serve as a fundamental framework for how we approach both of these areas and will serve the ABCD as well.

What do you want actuaries to know about the ABCD?

That we are a resource to help them do good work. Through the RFG process, an ABCD member can help you work through the relevant provisions of the Code, USQS, and ASOPs with the goal of producing good actuarial work products. Even when considering a complaint, the goal is to identify where issues have arisen and get an individual to understand how the work should have been done.

If you could change or improve one thing about how the profession approaches professionalism, what would it be?

I would like to see the continuing education requirement of 3.0 hours per year on professionalism topics increased. I think more attention to what is really in the Code, the USQS, and the ASOPs will benefit many actuaries and may ultimately increase the number of RFGs we see, which I would welcome. ▲



Championing Standards *of* Practice

Kevin Dyke, chairperson of the Actuarial Standards Board, reflects on the board's accomplishments and its role in guiding actuaries through evolving practice areas, regulatory expectations, and emerging risks.

In a time of evolving practice and emerging risks, Kevin Dyke, chairperson of the Actuarial Standards Board (ASB) and chief actuary with the Michigan Department of Insurance and Financial Services, has helped champion the standards of practice that shape how actuaries uphold professionalism and public trust.

Now in the last year of his last term as ASB chairperson, Dyke has also served on many Academy committees, including the Committee on Equity and Fairness and the Committee on Cyber Risk, as well as acting as ASB liaison to multiple actuarial standards of practice (ASOPs) task forces and to the Council on Professionalism and Education (COPE).

In this conversation with Contingencies, Dyke reflects on the ASB's progress, the value of the standards to the profession, and his vision for the future of actuarial practice.

As your tenure as chairperson nears its end, what accomplishments of the ASB are you most proud of during your years of service?

I am amazed every day by the efforts of my fellow ASB members and the hundreds of volunteers across our various committees and task forces. Our work is crucial to preserving and strengthening our self-regulatory framework. During my tenure on the ASB, we have promulgated 18 new or revised standards, with a dozen more in the pipeline. As chairperson, I have led the implementation of measures to streamline our review of proposed standards, improved and harmonized language common to most standards, and reviewed literature and current practices regarding artificial intelligence (AI) to determine if changes to the standards were needed. I expect these initiatives will continue after my term, especially given the rapid evolution of artificial intelligence.



The ASB is an independent body that resides within the Academy's structure. What do you want actuaries to know about the value this structure provides to them and the profession and how, if any, has your view changed since you've been a member and chairperson of the ASB?

My roots with the Academy began as the Casualty Actuarial Society's liaison to the Council on Professionalism (now Council on Professionalism and Education) in 2010, so I have admired and appreciated the work of the ASB for years. However, even as a close observer, I didn't fully grasp the value the standards bring to the broader actuarial community. Early in my career, I viewed the standards as a compliance requirement—the “rules of the road”—which they are, as Precept 13 of the Code binds us to follow them. Yet, as a member of the ASB and now its chair, I hear more from my colleagues, both regulators and non-regulators, that the standards are an invaluable tool in an actuary's toolbox, helping them to navigate difficult actuarial problems. I often say or hear from others that the “standards are your friend,” meaning that, just as you would seek advice from a trusted friend, you can seek guidance from the standards.

We have a strong ethical culture in our profession, largely due to the continuous efforts of the Academy and other organizations to educate and inform actuaries about the importance of following the Code and ASOPs. The actuaries I've worked with, both managers and colleagues, have consistently demonstrated professionalism, instilling the same values in me.



To date, the ASB has adopted 58 standards of practice in its 37-year history. What's your vision for the future of the ASB, and what do you see as its biggest opportunities and challenges in the coming years?

The future of the ASB and the standard development process is secure. The standards are time-tested, as became especially evident during the COVID-19 pandemic. Culturally, we faced unprecedented challenges in mortality, health care, and economic security. The actuarial community was prepared to address these challenges with the support of our standards. For example, in the *Considerations for Handling Auto Insurance Data in the Era of COVID-19* issue brief, we identified seven ASOPs that provide helpful guidance to the actuary with respect to data limitations, communicating important disclosures, and other technical issues related to the pandemic. While the standards will continue to evolve as actuarial practice evolves, they have demonstrated resiliency even in the most challenging circumstances.

The Code of Professional Conduct, the U.S. Qualification Standards, the actuarial standards of practice, and the discipline process are essential elements of the actuarial profession's framework for self-regulation.

Where do you see gaps, if any, and how might those be addressed through future ASOPs or other professional guidance?

One of the best summaries of our professionalism framework is found in former Academy President Tom Wildsmith's series on the "web of professionalism," summarized in the 2017 discussion brief, *The Academy and the Web of Professionalism*. The web visual illustrates how the USQS, ASOPs, and the discipline process weave together to help actuaries meet their obligations

under the Code of Professional Conduct and solidify our self-regulatory framework. But the web is not static; the ASOPs, the qualification standards, and the ABCD are routinely tested with societal changes and evolving actuarial practice, with "strands" added or removed as needed.

In addition to setting standards for appropriate actuarial practice in the United States, how else do you feel the ASB has impacted the Academy's success?

A key aspect of the Academy's mission is the advancement of professionalism in serving the public and the profession. Being a part of the Academy's professionalism framework facilitates collaboration with our ABCD and Committee on Qualifications colleagues, which further strengthens the framework—advancing the Academy's mission. Additionally, the ASB routinely participates in the Academy's professionalism webinars; ASB webinars have been attended by as many as 900 actuaries and interested parties.

Finally, the ASB serves as a liaison to the Committee on Professionalism and Education, which facilitates collaboration not only within the Academy but also with the other actuarial organizations served by the ASB.

How do you see the ASB's role in helping actuaries navigate complex societal issues while maintaining professional objectivity?

I mentioned previously the example of the COVID-19 pandemic and the resilience of the actuarial community in its response. Opinions varied widely on how governments and people should respond to the pandemic. With the help of the standards, actuaries were uniquely positioned to provide objective advice,

avoiding the political narratives. While I don't foresee another pandemic, the profession is well-positioned to provide objective advice on future issues as they arise.

If you could change or improve one thing about how the profession approaches professionalism, what would it be?

We have a strong ethical culture in our profession, largely due to the continuous efforts of the Academy and other organizations to educate and inform actuaries about the importance of following the Code and ASOPs. The actuaries I've worked with, both managers and colleagues, have consistently demonstrated professionalism, instilling the same values in me. Providing managers with a toolkit for coaching aspiring actuaries to develop a professionalism mindset would benefit our profession, our principals, and the public.

As a regulator, how do you view the role of self-regulation and the guidance ASOPs provide the profession and broader stakeholder community?

Regulators greatly value the guidance ASOPs provide to actuaries, often incorporating ASOPs in statutes, regulations, and compliance instructions. Many states, including Michigan, require rates to be developed following applicable actuarial standards of practice, regardless of whether an actuary is responsible for the rate filing. Compliance with the standards promotes actuarial soundness of company rating plans.

As a regulator and actuary, I not only produce actuarial work for my insurance department but also serve as an intended user of rate and model filings submitted for approval. My regulatory colleagues and I share frustrations about some actuarial work products received from company actuaries that fail to meet the requirements of legal requirements and/or the ASOPs.

While Precept 13 requires us to report apparent, unresolved, and material violations to the ABCD (if such reporting is not contrary to law or divulges confidential information), we are encouraged to first address any issues with the actuary. The legal and confidential barriers can hinder reporting violations. However, as regulators we have more tools than the average intended user or principal due to our oversight of regulated entities. We can alert the company to our concerns about the actuary's work or report not meeting the standards, prompting them to address the issues their actuary. Companies understand if our concerns are not addressed, we can deny the rate filing, require its withdrawal, or, in the case of an actuarial opinion, require the company to pay for a second actuarial opinion.

For issues that are more widespread, among many companies and actuaries, regulatory guidance can be issued. In my experience, these tools are effective mechanisms to ensure actuaries use appropriate methods and assumptions and issue communications that meet regulators' needs.

How has stakeholder feedback influenced ASB decisions during your tenure? Can you share some examples?

Stakeholder feedback is essential for the development of new or revised ASOPs. We expose proposed standards to the actuarial and broader stakeholder community to ensure the guidance is appropriate, relevant, and improves actuarial practice. If feedback necessitates significant revisions, we will re-expose the standard.

We particularly value feedback from regulators, industry groups, and consumer groups who rely on actuarial work products. Incorporating this feedback into the standard development process helps actuaries meet their professional responsibilities to their principals and intended users, thereby benefiting the public.

What advice would you give to the next ASB chairperson to build on the progress made during your leadership?

I've had the privilege of observing three effective chairpersons who preceded me: Kathy Riley, Darrell Knapp, and Rob Damler. All demonstrated the ability to balance the importance of receiving effective contributions from all ASB members, regardless of practice area, with managing the pipeline of draft standards. For example, we spent several meetings before and after I became chairperson reviewing the proposed second exposure of ASOP 41 to achieve consensus on the changes, as several areas of guidance departed significantly from the first exposure draft. I believe this balance is crucial to developing appropriate guidance to actuaries on a timely basis.

Looking ahead, what emerging risks or evolving practice areas do you believe will most influence future actuarial standards?

It would be impossible to answer this question without discussing AI, which I mentioned earlier. Currently, the ASB believes our standards provide sufficient guidance with respect to artificial intelligence but is prepared to make changes as necessary. The unprecedented COVID-19 pandemic demonstrated the resilience of our standards amid tremendous uncertainty and data limitations. Our standard development process is principle-based, deliberate, and transparent so that standards remain useful to actuaries in the ever-evolving landscape of financial security systems. ▲



Meet the 2025 Rising Actuary Award Recipients

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who are shaping the profession's future.*

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Practice Area: Life



Zhe "Gigi" Li,
MAAA, FSA
Senior Manager, EY
Practice Area: Health



Clara Xing Wang,
PhD, MAAA, ASA
*Associate Professor,
Illinois State University*
Practice Area:
Risk Management



Tim Koenig,
MAAA, FSA
*Head of Development
Integration, and Innovation,
Resolution Life*
Practice Area: Life



Scott Merkord,
MAAA, FCAS, CPCU
*Consulting Actuary, Risk &
Regulatory Consulting*
Practice Area: Property/
Casualty



Harrison Smith,
MAAA, FSA
*Senior Director & Actuary,
Security Benefit*
Practice Area: Life



Andrew Larocque,
MAAA, ASA
*Actuarial Supervisor,
Risk & Regulatory Consulting*
Practice Area: Health

Be sure to read the December *Contingencies* web exclusive, where we will profile all seven recipients. Through their insights and experiences, you'll see how these young professionals are navigating the complexities of the actuarial landscape, staying ahead of industry trends, and upholding the values that define the profession.

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Senior Leadership

- **VP, Annuity Projections Actuary.** Will lead a team responsible for generating projections under various economic environments and regulatory frameworks to support asset adequacy analysis, business planning, ALM analysis, and internal management reporting.
- **AVP/VP, Annuity Modeling Actuary** needed for this high energy, innovative, and entrepreneurial insurance company. Reports to the Chief Actuary and involves leading the development and enhancement of the global actuarial infrastructure that powers our client's valuation and projection processes.
- **Senior Actuary.** Fixed / Income Annuity Pricing. Fortune 100 company. This high-profile, strategic role operates in a collaborative setting, working closely with a diverse range of stakeholders across both sales and risk management functions.
- **VP, P&C Actuarial.** Lead pricing strategy across multiple lines of business for growing specialty insurer. Partners with Underwriting, Claims, Finance, and Reinsurance while mentoring a high-performing actuarial team
- **Senior Reserving Leader.** Our client is looking for a FCAS with over 10 years to spearhead and oversee the expansion of our commercial lines business. A strong background in people management and leadership needed.

Property & Casualty

- **AVP, Actuarial Pricing.** Lead pricing efforts for a new business unit, building it from the ground up. Have ownership over shaping pricing frameworks, developing tools and steering strategy.
- **AVP, Claims.** New opportunity to work in a newly created leadership role that bridges Claims and Actuarial. Provide executive-level insights by analyzing claims and actuarial data. Build frameworks, analytics capabilities, and potentially a growing team.
- **Senior Reserving Actuary.** A global reinsurance company is seeking a senior actuarial leader to drive reserving strategy, enhance reserving processes, and evaluate transactions from risk, capital, and profitability perspectives.
- **AVP, Data Science.** Lead a data science team, engage with business leaders and implement sophisticated analytics claims models in this role with a leading international insurance carrier.
- **AVP, ERM.** Partner directly with senior leadership to drive strategic insights. This role focuses on exposure management and casualty catastrophe modeling, leveraging advanced data and analytics to assess risk, develop innovative solutions

Life/Annuity/Pension

- **AVP, Life Valuation & Data Analytics.** Will lead the validation and communication of actuarial balances, collaborate closely with the database support team, and play an integral part in advancing reporting modernization efforts. FSA with data visualization or transformation tools (e.g., Tableau, Power BI, Alteryx, SAS) preferred.
- **AVP, Modeling.** This position will build actuarial models for newly acquired institutional blocks. Solid experience with MG ALFA or other actuarial projection software required.
- **AVP/Director, CFT Actuary.** This position will participate in quarterly CFT for the company's onshore life and annuity business and ensure the timely and accurate preparation, validation, and delivery of CFT results. Develop, update, and maintain controls for CFT process.
- **Pension Risk Transfer Director.** Will focus on PRT earnings analysis and reporting, with a strong emphasis on aligning financial KPIs to business objectives. Responsible for building dashboard infrastructure, evaluating GAAP and STAT earnings, and providing insights that influence pricing and strategic decisions.
- **Life Product Actuary.** Will play a key role in leading and supporting initiatives related to the design and pricing of indexed and fixed/traditional life products.
- **Pension Actuary.** Canadian company seeks experienced actuary with expertise in multi-employer pension plans. Experience managing an administration team, developing administration team spreadsheets and being familiar with complex administration calculations is preferred.
- **Third Party Reinsurance Management.** This position will act as a key contact for internal and external queries related to reinsurance on both Life and Annuity products while managing a small team.
- **Life Consulting Actuary.** This position will be involved with a variety of assignments including modeling, M&A, pricing, ALM, STAT, Tax, GAAP valuation, and CFT.
- **VA Consulting Actuary.** This position will design and manage dynamic hedging programs to mitigate equity guarantee risks, support financial reporting for Variable Annuities, and perform due diligence on M&A transactions.

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Marketplace Specialist

Actuarial Careers Inc.® specializes exclusively in actuarial placements. With over two decades of dedication to the marketplace, we have earned our reputation as experts and trusted consultants to both our candidates and our client companies, who are the most recognized names in the industry. Our reputation opens doors, so that when we present candidates for positions, they are given the attention and consideration they deserve.

Career Consultant

We always encourage candidates to view their current position and their job search from the perspective of a long-term career plan. Our intentions are to help candidates define and find their dream jobs. Our experience and industry knowledge provide the framework for that exploration. We highlight options and present opportunities that might otherwise be overlooked.

Responsive Resource

The detailed and timely information in our database allows us to match candidates to positions quickly, so that we can secure interviews in less time than other recruiters. We keep in contact with hiring managers, and initiate status updates to our candidates. We encourage candidates to consider us as their sounding board and career resource, even if they aren't currently looking to make a move. We are always just a phone call away, and we can be available after hours too.

Professional Representation

Our self-imposed standards dictate that we only post real jobs, and only those that we have been engaged to recruit for. We personally present each candidate's qualifications. We present people; we don't just send or blanket-submit resumes. Because confidentiality and the candidate's reputation are priorities with us, we never present a candidate without their expressed permission. We are expert negotiators, and we never pressure a candidate to accept an offer or a position. Career moves are always the choice of the candidate.

Support System

Every candidate works directly with a dedicated recruiter, who is the single point of contact. In addition to that personalized attention, candidates also get the resources of our entire team, directed by our President, Aimee Kaye. Our recruiters do not have to compete internally; instead, we pool our knowledge, connections and resources to find positions and companies that fit the candidate's aspirations. When you work with us, you get our whole team working for you.

Recruiting Team

Jennifer Hart, Principal & Owner

Jill Grayson, Principal & Owner

Kieran Michaels, Principal & Owner

Aime Kaye, Founder & Senior Advisor

Jesse West, Executive Vice President

Lindsey Nelson, Vice President

Lauren Lee, Assistant Vice President

Caitlin Beard, Executive Recruiter

Josh Tamis, Senior Executive Recruiter

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108488

Director & Pricing Actuary

Life – Northeast

- ◆ Assess and price Individual Life reinsurance transactions, lead process improvement, and refine tools
- ◆ Collaborate with cross-functional teams, support innovation and business development, and present pricing results to key stakeholders
- ◆ FSA with 7+ years' actuarial life (re)insurance experience
- ◆ Technical expertise and pricing/product development background

110370

Vice President

P&C – Remote

- ◆ Role offers unlimited growth potential, an exceptional work culture, and competitive compensation
- ◆ Lead pricing strategy, build and refine models, assess rate adequacy, and present insights to executives
- ◆ Work closely with senior actuarial team and across departments, and mentor diverse pricing team
- ◆ FCAS with 10+ years' experience, expansive pricing expertise and strong technical background
- ◆ Great communication and leadership skills
- ◆ Highly collaborative, hands-on, fast-paced environment

109026

Managing Actuary

P&C – Remote or Midwest

- ◆ High-impact opportunity to lead motivated actuarial team on pricing and rate indications, partner with senior leadership, and drive organizational decision making
- ◆ Work closely with Product and Analytics to optimize pricing strategy and drive innovative product development
- ◆ ACAS/FCAS with 5+ years' experience and strong pricing background (Personal Lines preferred)
- ◆ Passion to inspire and grow actuarial team through hands-on mentoring and leadership
- ◆ Process improvement-oriented with great communication and presentation skills

109958

Inland Marine & Ocean Pricing

AVP – P&C – Northeast/Midwest

- ◆ Unique opportunity to lead ground-floor build out of Ocean & Inland Marine portfolio and pricing infrastructure
- ◆ Monitor performance, refine assumptions, and deliver strategic insights to Underwriting and leadership
- ◆ ACAS/FCAS with 8-12+ years' experience with Inland Marine & Ocean and/or new business/pricing function development expertise
- ◆ Fast-paced, collaborative, entrepreneurial culture

109269

Actuary

P&C – Commercial Property – Florida

- ◆ Serve as Commercial Lines SME, leading pricing strategy, developing rate indications and pricing tools
- ◆ Oversee Reserving function and review
- ◆ Interact with regulators on rate filings
- ◆ ACAS (or near) to FCAS with 8+ years' Commercial Lines experience
- ◆ Commercial Property pricing expertise highly desired
- ◆ Strong presentation and technical skills

109790

Actuarial Director

Health – Medicaid – Remote

- ◆ Shape strategy, drive innovation, and scale for long-term impact alongside some of the industry's finest
- ◆ Build and lead a new practice area while shaping innovative Medicare Shared Savings Programs
- ◆ Lead high-performing actuarial team and interact with C-suite executives and cross-functional teams
- ◆ ASA/FSA with 8+ years' experience, MSSP expertise, and business development and/or VBC exposure
- ◆ Knowledge of ACO development and structuring contract deals

109885

Associate Director

Life Reinsurance – Pricing – Chicago

- ◆ Lead Reinsurance pricing, modeling, and profitability analysis across U.S. and Bermuda frameworks
- ◆ Collaborate with Finance and Investment teams
- ◆ Present pricing recommendations to senior leadership and governance committees
- ◆ FSA with 7+ years in life insurance including diverse annuity pricing and modeling background
- ◆ Proven AXIS modeling expertise with experience in model development and enhancement
- ◆ Strong business acumen and presentation skills

109065

Actuary

Supplemental Health – Remote

- ◆ Build and refine actuarial and financial models
- ◆ Develop and enhance pricing assumptions for supplemental health products
- ◆ Build consensus and influence stakeholders to drive strategic, data-informed decisions
- ◆ Lead or contribute to cross-functional projects and support regulatory filings
- ◆ 2-3+ years' experience and 3+ exams to ASA
- ◆ Strong business acumen and technical skills

H.R. 1 Shines Light on Academy Policy Priorities

POLICY CAN BE CONFUSING, even for those who are tuned into the process. Lawmakers and regulators seem to speak their own technical language that, at times, makes it difficult to understand what they are trying to accomplish.

The Academy's Public Policy department knows this challenge firsthand—after all, we sometimes get lost in the mire ourselves. Going forward, we will use this space in *Contingencies* to focus on relevant policy subjects. We'll highlight how public policy affects actuaries, industry, and individuals, as well as the work the Academy's volunteers are doing to serve the public and the actuarial profession. Our goal is to shed some light on a subject that is often not transparent.

In this inaugural column, we're diving into H.R. 1, also known as the One Big Beautiful Bill Act^[1] (OBBA), which President Trump signed into law on July 4. The law touches upon many issues of interest to the Academy and the broader policy community, most notably in the health care^[2] arena. Let's take a closer look at some of the priority issues for actuaries and the Academy.

Health Care

In Medicaid and the commercial/individual insurance market (often referred to as the Affordable Care Act [ACA] market), the law makes significant changes expected to place a greater economic burden on states and the public. While Congress deliberated the various provisions within the law, the Academy's Health Practice Council sent several comment letters to the House^[3] and Senate^[4] outlining the potential impacts on the Medicaid and ACA markets.

Garnering the most attention related to the Medicaid program are new work

requirements, expected to reduce enrollment while raising administrative costs for the states. The law mandates that most non-disabled, non-elderly adults complete at least 80 hours of work or related activities each month, unless they are a student, pregnant, or serving as a caregiver.

Other modifications that will impact the program include limits on Medicaid provider taxes, which will tighten rules on health-care-related taxes used to draw down federal Medicaid funds; the phase-in of a lower cap on tax rates; and reduced state financing flexibility.

As the Academy noted in the July 1, 2025, comment letter, "Given how interwoven and connected the existing health insurance markets are within the U.S., it is particularly necessary to take into consideration the fiscal, population, and operational impacts that any potential reforms might have when assessing the desired budgetary outcomes. We share a common focus maintaining the crucial stability of the overall health care market, which includes the individual and small group markets, the Medicaid program, and the self-insured marketplace."

While the Academy does not actively lobby on federal legislation, comment letters and conversations with key Congressional leadership and legislative staff help educate decision-makers and underscore the value actuaries bring to policy analysis and program impact evaluation. Being able to look at the entirety

of the health insurance system and understand the potential short-, mid-, and long-term implications of various policy levers on affordability and access is one of the distinct strengths of the Academy's volunteers.

Regarding the ACA, significant debate focused on improving market integrity, the annual premium adjustment percentage, actuarial value *de minimis* standards, and the status of the enhanced premium subsidies. Throughout the reconciliation process, the Academy's volunteers and senior health fellow actively engaged with the key committees of jurisdiction and influential legislative staff.

As the Individual and Small Group Markets Committee noted in its June 3 letter, "The Academy's longstanding mission is to inform public policy deliberations in an objective and nonpartisan manner. The Committee shares the goal of promoting access, affordability, choice, and competition in the individual health insurance market. This market is governed by a framework of laws and regulations designed to support these objectives, including uniform market rules, premium tax credits, cost-sharing reductions, and consumer protections."

More recently, the Health Practice Council consolidated several key resources for federal and state stakeholders in one place on the Academy's website. With a variety of issue briefs, infographics, and policy papers on 2026 premium drivers,^[5] market stability,^[6] and the interconnectedness of health insurance markets,^[7] they have made it easy for anyone to become better informed on the various policy levers that influence and impact the affordability and accessibility of the ACA marketplace.

Social Security

While not intended to have a direct impact on Social Security, the OBBBA includes language that has caused some confusion and calls for further review. Within the law, there is a provision that provides a temporary \$6,000 tax deduction for Social Security recipients who are aged 65 or older and who earn less than \$75,000 a year (under \$150,000 for joint filers). This deduction would effectively reduce taxes for millions of seniors. An analysis^[8] by the White House Council of Economic Advisers found that before OBBBA passed, 64% of seniors had exemptions and deductions exceeding their taxable Social Security income. With the passage of the law, the Council of Economic Advisers found that number increased to 88%.

It's important to keep in mind that a tax break in place through 2029 is not the

same as ending federal taxes on Social Security. Concerns have been raised that seniors and others may not fully understand that the OBBBA has not, in effect, ended taxes on Social Security benefits.

Meanwhile, the nonpartisan Committee for a Responsible Federal Budget (CRFB) estimates that the “senior bonus” and other tax changes in the bill will mean an annual reduction of approximately \$30 billion in revenue for the Social Security program. This would accelerate the projected insolvency date for the Social Security OASI trust fund, moving it from early 2033 to late 2032. CRFB also estimates an additional 24% cut in benefits due to this change.^[9]

The Academy's Retirement Practice Council, which has been working with Congress and the administration on policy steps to address the solvency problem, continues to monitor proposed

solutions. In addition to their 2023 issue brief, *Reforming Social Security Sooner Rather than Later*,^[10] the Social Security Committee has also published its annual infographic^[11] that outlines the financial state of the program and features key takeaways from the 2025 Social Security Trustees Report.

The bill includes numerous provisions that intersect with the policy priorities of the Academy and the actuarial profession. Covering everything from artificial intelligence (AI) to crop insurance, and from tax reform to workforce eligibility requirements for noncitizens, the law touches many aspects of both our professional and personal lives.

The true impact will continue to be analyzed and evaluated in the months ahead. While the bill may not have been everyone's ideal solution to many policy questions and concerns that we



The bill includes numerous provisions that intersect with the policy priorities of the Academy and the actuarial profession. Covering everything from artificial intelligence (AI) to crop insurance, and from tax reform to workforce eligibility requirements for noncitizens, the law touches many aspects of both our professional and personal lives.

have across the industry and financial security landscape, it does emphasize the need for—and value—of a balanced and objective source of truth for decision makers, the media, and other interested parties. The Academy and our volunteers remain a highly valued, highly motivated resource, offering insights, guiding paths forward in complicated scenarios, and reminding elected officials that understanding the pros and cons of every proposal is rarely straightforward.

Public policy touches and influences our lives every day. What the Academy does, on behalf of the public and the profession, is to offer some unique and valuable expertise to help cut through the political distractions. The OBBBA represents one of the most comprehensive legislative efforts in recent years, with far-reaching implications for health care, retirement security, AI, and more.

Fortunately for us—and for Congress—the Academy will continue to assess the impact of proposed and enacted laws, providing objective actuarial perspectives to policymakers and the public. It's our mission—and our way—to help everyone better understand the process that is public policy. ▲

TED GOTSCH is the policy content and publications manager at the American Academy of Actuaries.

Endnotes

- [1] H.R. 1, One Big Beautiful Bill Act.
- [2] "Health Provisions in the 2025 Federal Budget Reconciliation Bill"; KFF; July 8, 2025.
- [3] Committees Comment to House on H.R. 1 Health Provisions; American Academy of Actuaries' Medicaid Committee and Individual and Small Group Markets Committee; July 1, 2025.
- [4] Committee Comments to Senate on House Budget Bill; American Academy of Actuaries' Individual and Small Group Markets Committee; June 3, 2025.
- [5] *Drivers of 2026 Premium Changes*, American Academy of Actuaries' Individual and Small Group Markets Committee; July 2025.
- [6] *Strategies to Achieve Market Stability in the Individual Health Insurance Market*; American Academy of Actuaries' Individual and Small Group Markets Committee; July 2025.
- [7] *The Interconnectedness of Health Coverage Sources for the Under-65 Population*; American Academy of Actuaries' Individual and Small Group Markets Committee; July 2025.
- [8] "No Tax on Social Security is a Reality in the One Big Beautiful Bill"; Office of the White House; July 1, 2025.
- [9] "Retirees Face \$18,100 Benefit Cut in 7 Years"; Committee for a Responsible Federal Government; July 24, 2025.
- [10] *Reforming Social Security Sooner Rather Than Later*; American Academy of Actuaries' Social Security Committee; October 2023.
- [11] *Highlights from the 2025 Social Security Trustees Report*; American Academy of Actuaries' Social Security Committee; June 26, 2025.

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—Laurie Young

Production Manager, November 1, 2025

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Clara Xing Wang
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Illinois State University

DETAILS ON PAGE 42



AMERICAN ACADEMY
of ACTUARIES

Hallucinations

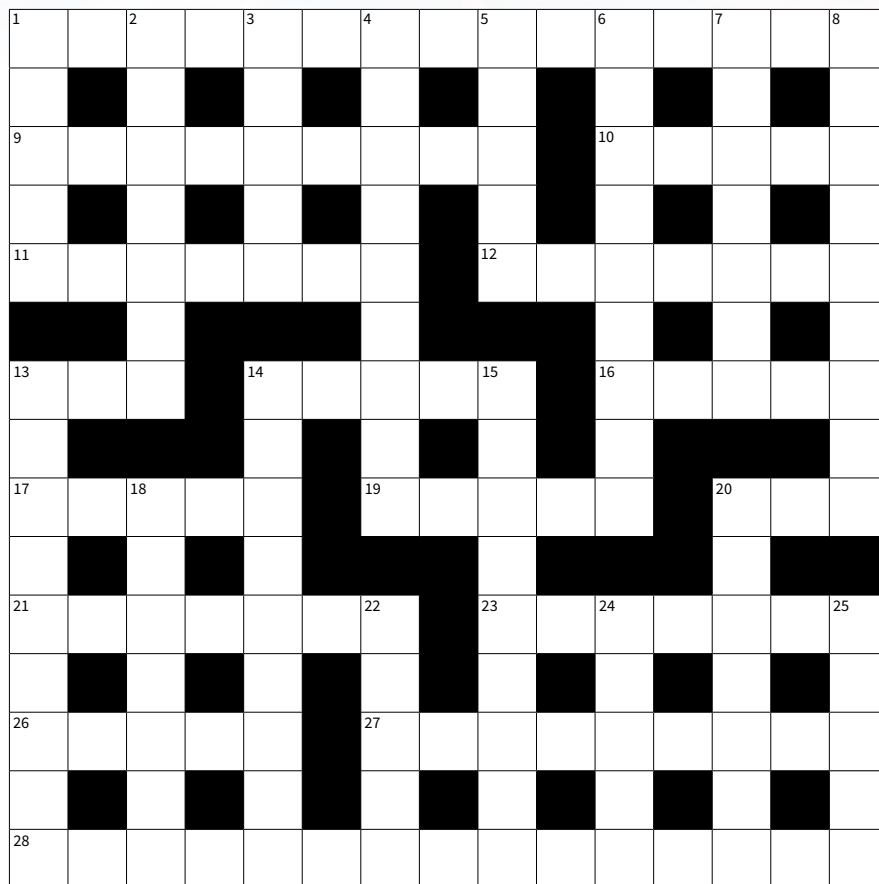
I'VE BEEN SEEING A LOT OF LISTS OF OCCUPATIONS that are likely (and not likely) to be replaced by artificial intelligence (AI). On the likely list are mathematicians, statistical assistants, writers and authors, and personal financial advisers. On the other hand, a Google search (which is now run by AI, I believe) tells us:

"Occupations least likely to be replaced by AI generally involve complex human interaction, creativity, or hands-on tasks that require adaptability and real-time problem-solving. Examples include roles in health care, education, creative fields, skilled trades, and leadership positions."

Contingencies readers will be interested in knowing how the actuarial profession fits in. Are we more like mathematicians and personal financial advisers? Or does our work involve complex human interaction, creativity, and real-time problem solving?

Setting aside that conundrum for a while, I wanted to see how AI would do on cryptic puzzles. Not filling in the grids. Crossword puzzle software, which is AI-like, is already pretty good at that, and most constructors do use software to fill out grids. I was more interested in how AI would tackle clue writing.

Cryptic clues are weird. Good ones are funny, which isn't something AI is known for. There are a lot of rules, and I think most solvers are only vaguely aware of them. Some rules are nearly inviolable. For example, you will never (maybe almost never?) see an anagram clue that does not explicitly include the letters needed for the anagram. If you want TEAR to be anagrammed into RATE, you have to actually put the word "tear" into the clue. It's a no-no in cryptic land to expect a solver to first derive "tear" from "rip" and then make the anagram. Other rules are less strict, and different constructors and editors have varying requirements.



Based on my research, cryptic puzzle constructors are safe—for now. The first set of clues came from AI prompts. I asked an AI program to give me three possible cryptic puzzle clues for each entry. Some of them were OK. Most were terrible. Not idiotically terrible, though. The straight definition parts were usually fine, but the wordplay was generally awful. I got back anagrams that violated the rule mentioned above or that had extraneous letters, skips that didn't quite work, homophones that just hung there awkwardly. Each clue

came back with an explanation, and they were usually just wrong—like calling something an anagram when it clearly wasn't. I call these clues "hallucinations." Again, from Google:

TOM TOCE is an FCAS and a seasonal director at KPMG. He is a member of the Jeopardy Hall of Fame. Solutions may be emailed to ttoce@nyc.rr.com. In order to make the solver list, you should send him your solutions by Dec. 1, 2025.

“AI hallucinations occur when large language models (LLMs) generate inaccurate, nonsensical, or fabricated information in response to user prompts, despite appearing confident and coherent. These “hallucinations” can range from minor errors to complete fabrications and are a significant challenge for generative AI systems.”

I encourage everyone to try solving this puzzle using the hallucinations. It'll be frustrating—or challenging—depending on how you look at it. Just remember that the clues are flawed. (I didn't include any of the decent AI clues.) There are four proper nouns as they are clued.

Let me know if you solve the puzzle using only the hallucinations. If you find them too difficult to work with, try the regular clues. They work the same as in any other cryptic puzzle. There are five proper nouns as clued (one entry is clued as a proper noun in the regular clues but as a common noun in the hallucinations). Everything else is playable in Scrabble. Ignore punctuation—it's often included to deceive.

The long unclued entries at 1A and 28A are both two-word phrases related to the theme. The solver has to work them out from the down entries.

Thanks to Jerry Miccolis for test-solving and editorial suggestions.

Hallucinations

Across

1. See instructions (7, 8)
9. Filter through performance by feline
10. A doctor's favorite fruit, reportedly
11. Painter caught in capricious soap opera
12. Menaces that test rashness
13. King of beasts, oddly eloquent
14. Interprets clues, as solver does
16. Fuel additive not in rotation oddly

17. Blended fuel used strangely
19. Remove error, as edited
20. Hardwood seen in a koala's kingdom
21. Talk about mine's rare contents
23. Striking thing in tight gin mix
26. South American leaf found in nearby
27. Link between systems, initially in net café
28. See instructions (11, 4)

Down

1. Finish off messy soup, perhaps
2. Tropical spirit found in accurate cocktail
3. Notable images, oddly in coins
4. Developed a rebel to act out
5. Occasion when vet's in trouble
6. Alter layout, gear near chaos
7. Insert limb, tap adjusted
8. Speculation from rogue skews?
13. Habits of elf yet is transformed
14. No longer needed, turned under and red
15. Noodles seen in this page, twisted
18. Sword master seen in samurai films
20. Paper art that folds into animals, maybe
22. Control seen in genre I twisted
24. Alpine land where royalty turns
25. Ancient tongue that sounds like a geek?

Regular Clues

Across

1. See instructions (7, 8)
9. Better to replace what you might call “coffee”
10. Extremely appealing single by three-time Grammy winner
11. He made collages from priapic associations?
12. Mad hatters issue warnings
13. Constellation of stars--DiCaprio, for instance
14. Follows the sheet music, with oboes and bassoons blaring

16. Intro re-orchestrated, it can be good for the heart
17. Coupled after feuds got settled
19. Swift tour with a bit of eroticism as takeaway
20. Mighty tree with steep top cut off
21. Remains unfocused in class
23. At bat and after losing opener, apt to chase Pittsburgh's closer
26. Mate occurs when player badly relinquishes the middle
27. Collaborate to bury Brook
28. See instructions (11, 4)

Down

1. Finish off a hopeless fight against Missouri dog (two words)
2. Heal a pig some would say with blue liqueur
3. Champions are flipping coins
4. Are oblate patterns intricate?
5. “Special occasion” is just Thursday
6. Line up again behind Ken
7. Limp lantana needs pruning or a graft
8. Estimates of attendees (not including those at the opening performance)
13. Way of being silly: feet flying
14. Under-baked? Alternatively, dear, not overdone
15. It improved the gaps showing up in many an Italian dish
18. One first-class rum as taken up by Japanese warrior class
20. On the other hand, I ultimately bag a thousand with a little bit of ingenious paperwork?
22. Storms sounding in Queens administration
24. Pretty rollicking inside a region in the Alps? Just the opposite!
25. General stink is nonsense, metaphorically

Solutions to the previous Cryptic Puzzle appear on page 54

Solution to Previous Issue's Puzzle—Are We on the Same Wavelength?

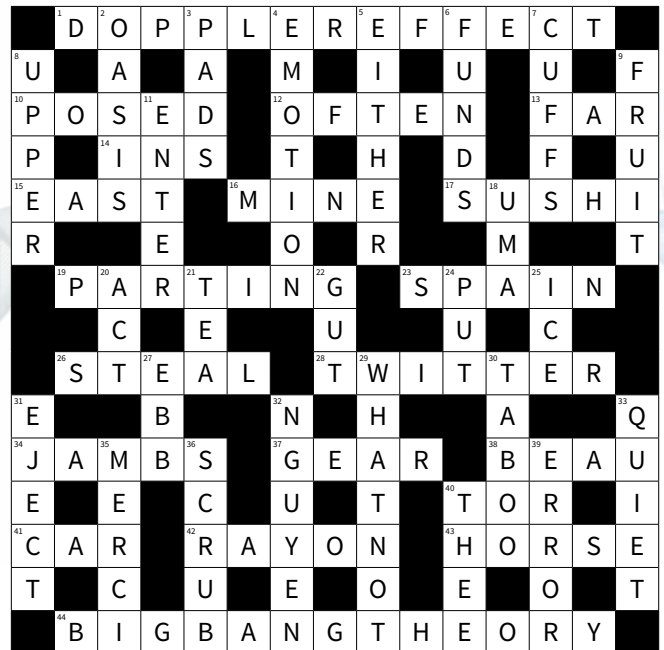
RED SHIFT is spelled out from the exchanged letters in the pertinent across entries. It is an example of 1 Across, as explained by 41 Across.

Across

1. DOPPLER EFFECT
10. POSED from PORED—Homophone of POURED (“streamed”), yielding R
12. OFTEN—Double definition (OF TEN)
13. FAR from EAR—Anagram of “era,” yielding E
14. INS—Homophone of INNS (“retreats”)
15. EAST—Alternating letters in “we may sit”
16. MINE from MIND (MI + ND, “two states”), yielding D
17. SUSHI—Anagram of “us, his”
19. PARTING from PARSING—PAR “a standard” + SING “tattletale,” yielding S
23. SPAIN from SPAHN—SPA (“Hot Springs, for example”) + HN (“New Hampshire” reversed), with reference to Warren Spahn, a “Brave superstar” and “sometime Met”, yielding H
26. STEAL—Homophone of STEEL “rally”
28. TWITTER—TITTER (“Laugh self-consciously”) around W (“what at first”)
34. JAMBS from IAMB—I AM (scramble “Am I”) + BS (“crazy”), yielding I
37. GEAR from FEAR—Hidden in “supersafe arboretum,” yielding F
38. BEAU from BEAT—Double definition, yielding T
40. TOR—Unclued. My mistake. “Left to decompose on a craggy hill,” courtesy of Betsy Uzzell.
41. CAR—CARtilage, with reference to the Corvette Stingray
42. RAYON—(C)RAYON—“pastel for the most part”
43. HORSE—Anagram of “or she”
44. BIG BANG THEORY

Down

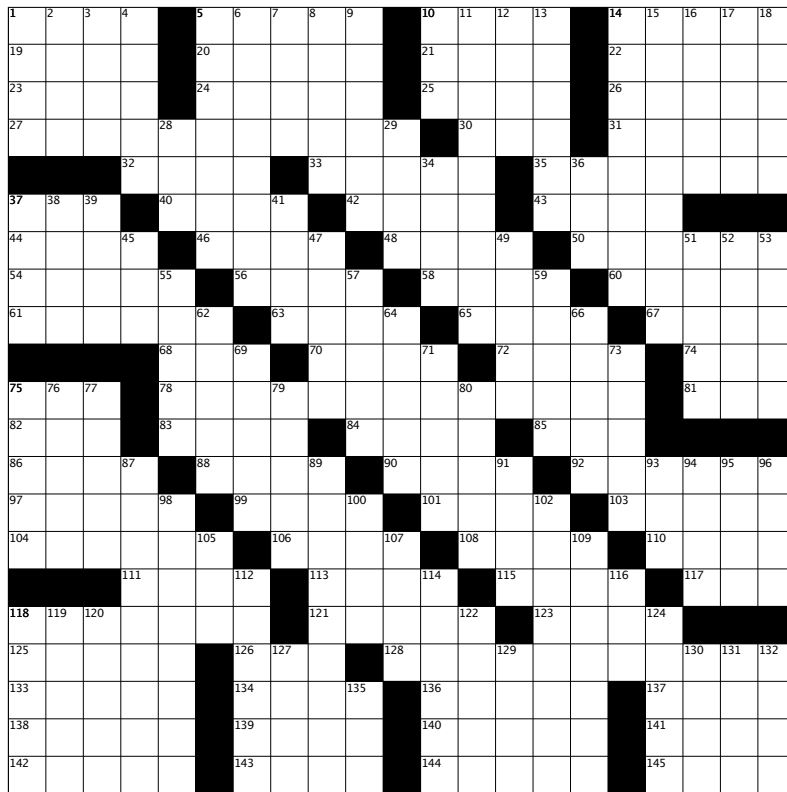
2. OASIS—OAS (“Western Hemisphere assembly”) + IS
3. PADS—AD (“some admiration”) inside PS (“a postscript”)
4. EMOTION—Anagram of “Noontime” without one N (“with no new”)
5. EITHER—Anagram of “there, I”
6. FUNDS—FUN (“Joy”) + first letters of “Desdemona” and “Siobhan”
7. CUFFS—CU (“copper”) + FFS (“43% tariffs”)
8. UPPER—(S)UPPER (“Dinner’s starting a little late”)
9. FRUIT—Outside of “Frivolous pursuit”
11. ENTER—ENT + ER (“Two kinds of doctors”)



18. UMA—UM (“Hesitation in speaking”) + A with reference to Uma Thurman
20. ACT—Anagram of “cat”
21. TEA—Double definition
22. GUT—Reversal of TUG (“a tower”)
24. PUT—PUT(T), “a short golf shot”
25. ICE—Double definition
27. EBB—Double definition, with reference to Fred Ebb (“Cabaret lyricist”)
29. WHATNOT—Anagram of “Want hot”
30. TABOO—TA (“at upset”) + BOO (“to express displeasure”)
31. EJECT—EJ (“easy junk at first”) + ECT (“finally the music equipment”)
32. NGUYEN—NG (“No good”) + U (“you” homophone) + YEN (“Japanese bank notes”)
33. QUIET—QUI (“Who in Paris”) + ET (“and in Marseilles”)
35. MERCI—Anagram of “Crime”
36. SCRUB—SC (first two letters of “Scour”) + RUB (“polish”)
39. ERROR—ERR (“Make a mistake”) + OR
40. THEE—THE + first letter of “essence”

Solvers: Steve Alpert, Dean Apps, Bob Campbell, Lois Cappellano, Laura Cremerius, Jared Dashoff, Todd Dashoff, Christopher Dickens, Mick Diede, Deb Edwards, Jason Helbraun, Pete Hepokoski, Catharine Hornby, Max Jackson, Ruth Johnson, Paul Kollé, Mike Kosciuk, Ken Kudrak, George Levine, Tim Luker, Ben Lynch, Michael Manos, Dave McGarry, Jon Michelson, Jim Muza, David and Corinne Promislow, Ram Raman, Chase Rawlins, Jay Ripps, Bill Scott, Andrew Shewan, Bob and Shannon Schriver, Sally Smith, Zig Swistunowicz, T. O. C. E. (Josh DenHartog and Sean Donohoe), James and Betsy Uzzell, and Bonnie Veenschoten

Show Me the Money



Across

- 1 Diamond alternative
5 Guttenberg film of 1982
10 Cruise film of 1981
14 Goddess of horses
19 Unparalleled
20 Banal
21 Elephant Man actor John
22 Father of Charlemagne
23 Risk territory
24 It has a "son" within
25 Bouquet
26 Peeved moods
27 Oil revenue
30 "But he saith unto them, It ____; be not afraid": John 6:20
31 Get used to
32 Crawled, in a way
33 Tennessee Williams' "Summer and ____"
35 Teflon or nylon
37 "I hope you got ____" Violent Femmes
40 Capital on the Pacific Ocean
42 Make bread
43 Bank deposit
44 City west of Tulsa
46 Bar closing

- 48 Allen of Def Leppard
50 Bletchley Park target
54 It involves a low interest rate?
56 Succeeding
58 Act like It
60 Some antidepressants, for short
61 All-weather wear
63 Finish line feature
65 Apple product
67 Popular department at MIT
68 Producer of the Jacksons?
70 Evening along the Tiber
72 Meter or graph opening
74 Metric unit of area
75 Maria Sol to Messi
78 Petty officer
81 One who's one
82 PC monitor type
83 Like loafers
84 In a trice
85 "Stay With Me" Grammy-winner Smith
86 Fridge foray
88 2004 Usher hit whose title is repeated more than seventy-five times in the song
90 Bank woes

- 92 Hank Aaron's birthplace
97 Like Wrigley Field until 1988
99 Berth place
101 Musical piece
103 Allonge
104 Type of digital image
106 Tart
108 2009-10 Super Bowl number
110 Japanese sandal
111 Snow in Swansea
113 "Iliad" character
115 Scarborough event
117 Biblical mount
118 Noted American behaviorist
121 Exhibits dizziness
123 Recipe instruction
125 Dadaist Max
126 You may be this to a Canadian
128 Type of piano
133 A pizza slice has two
134 Aviation pioneer Sikorsky
136 Recipe instruction
137 First century Roman emperor
138 Member of the peerage
139 Wooden nickel
140 Character in the "Iliad" and the "Odyssey"
141 Was profitable
142 Cast replacement
143 Crucible
144 Olive alternative
145 Lily family member

Down

- 1 "Give it up!"
2 Shed
3 Tesla, for one
4 Sell mates?
5 Contemptuous conduct
6 Joint possession
7 Arrest
8 Organic chemistry topic
9 Handle differently?
10 Yet, to Yeats
11 What Paul McCartney draws
12 Lions and Tigers and Bears
13 Gets into the pole position?
14 Elasticity measures, in economics
15 Avaricious
16 Perfume by YSL
17 Saltpeter in Soho
18 Goose classification
28 Athlete from Temple
29 Stadium sound
34 Kim and Kylie's mom
36 Low note
37 Ambience
38 Wintour of fashion
39 Big guy's nickname
41 A way to begin
45 Mom's date?
47 Keep one's head above water
49 Castle strongholds
51 93 down synonym
52 93 down antonym
53 Beauty, brawn or brains
55 Neighbor to the west of 76 down
57 Kilmer poem
59 "Ode to a Nightingale" poet
62 Desk site
64 Solecism
66 Night vision
69 Drakes, for example
71 2012 French-language film nominated for five Oscars
73 Hauberk
75 Second-stringer
76 Neighbor to the east of 55 down
77 Heron cousin
79 Rationals + irrationals
80 Take without asking
87 One of two in a plane
89 Droll
91 Certain women's magazine
93 52 down antonym
94 ____ man
95 Fills a flat?
96 Ages
98 Besmirching
100 Like Galahad
102 Reason someone might do shots
105 Oregon icon
107 Six, seven, eight follower
109 Tempestuous
112 Escape ____
114 Treat with indifference
116 Bolivian river
118 Eastern Europeans
119 South African village
120 Lemur of Madagascar
122 Prison guard
124 Medicine behind the 2001 Nobel Prize in Chemistry
127 Eyeball
129 Wife of Shiva
130 Famous last words
131 Setting of the Pro Football Hall of Fame
132 Joint point
135 Army unit made up of Bn's

Previous Puzzle: Cabinet Members



Solvers: Steve Altschuld, Dean Apps, Todd Dashoff, Jared Dashoff, Ken Kudrak, George Levine, Jim Muza, Gregory Scruton, Madhumathi Windon, and Wendy Windsor

Solutions may be emailed to
puzzles@actuary.org. In order to make
the solver list, your solutions must be
received by Dec. 1, 2025.

Connections

ON WHAT I THOUGHT WAS A TYPICAL SUBWAY RIDE 18 MONTHS AGO, my friend Chef asked me for a hand on a game he was stuck in. Never in a million years did I expect that this simple call for help would change my life.

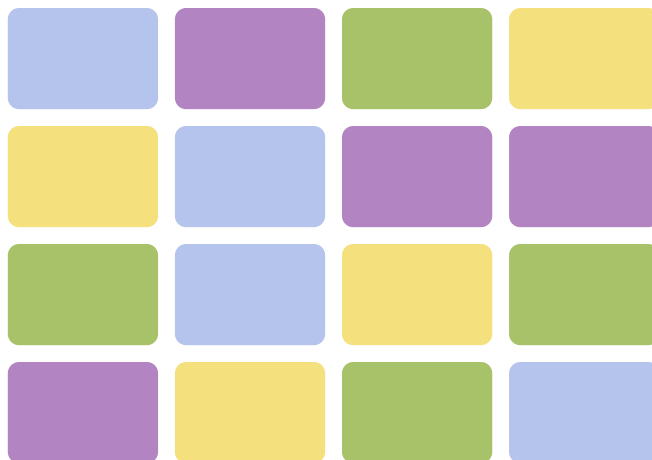
Chef couldn't solve that day's *New York Times* Connections puzzle. In Connections, players are given 16 seemingly random words. In reality, each puzzle contains four groups of four words that are related. The connection might be that the words are synonyms, that the four words are all names of famous rappers, that they are all NHL nicknames, and so on. In each game, the player makes a guess of four words they think are connected. After each guess, the game tells you if your guess is correct or not. As each word appears in only one connection, all 16 words are used exactly once. You keep playing the game until you have found all four sets of connected words, or if you make four mistakes, whichever comes first.

I honestly can't remember if I helped Chef solve that original Connections puzzle or not, but wow, did I get hooked on the game! I went to the archive and played all the previous puzzles, and without tooting my own horn, I thought I was a pretty darn good Connections player. So, when I heard there was an unofficial Connections National Championships, I had to enter and test myself against the best Connections solvers in the country.

At the Championships, it wasn't enough to solve the Connections puzzle; speed mattered. The fastest person to solve the Connections puzzle was declared national champion. As usual, I massively overestimated my problem-solving skills, disgraced my family name, and came nowhere close to winning or even placing in the competition. I left the competition feeling humbled and embarrassed.

While leaving the contest venue, an angry mob started to form. It didn't take long to figure out what was irking everyone: fellow competitors accused the winner of cheating. The mob seemed confused about how the winner had somehow solved the puzzle in under 10 seconds! How was this possible without something nefarious going on?

With a brouhaha brewing, I decided to stay for the award ceremony to see what would happen. When the winner accepted the first-place prize, she admitted to the angry crowd she won the competition by sheer luck: She had guessed the right answers. The winner explained that because the game let players know



if they were one away from a right answer (hence the incorrect answer had three words that connected but the fourth did not), she used this fact to devise a guessing strategy that ultimately gave her the win.

I have no idea how, but a random person standing nearby recognized me and said, "Wait, aren't you that puzzle guy? Is it really possible to guess your way to success? What is the probability that someone can guess their way to victory? Still bummed from my poor performance, I was not in the right mindset to help answer the question. But I bet my puzzle-solving friends could help out!

1. Assuming a standard Connections puzzle of 16 randomly placed words, what is the probability, by sheer luck, that someone correctly matches all four groups of four words without making any mistakes?
2. At the start of the Connections puzzle with 16 words remaining, if one made a random guess, what is the probability that the first four-word guess would be correct? What is the probability the first four-word guess would consist of three connected words along with one unrelated word? How does this probability change after one correctly finds the first connection, so that there are now 12 words left?
3. Assuming the game does not give any hints about being one away from the right answer (though it will indicate if you matched four words correctly), what is the probability of someone randomly winning the game before making their fourth wrong guess?
4. Assume the game tells you after your first guess that you were one away from the right answer. What is your probability of randomly correcting your error on your next guess? Assume that you know your first incorrect guess was not the one away set. Using this information, what is the probability that your next guess of four will be correct?

Solutions may be emailed to puzzles@actuary.org.
In order to make the solver list,
your solutions must be received by Dec. 1, 2025.

5. How does the answer to part 4 change if there are only 12 words remaining in the puzzle? What about if there are now only eight words remaining in the puzzle?

Party People Solutions

The well-known problem: “Prove that at a party of six people, there are either three mutual acquaintances or there are three mutual strangers” can be translated into Graph Theory, by representing each of the six people at the party as *vertices* of a *graph*, G . And for each pair of people (vertices), one gets a unique line between them which is an *edge* of G . We use the pair of vertices to denote their edge. This graph is the **complete graph of order 6**, denoted K_6 . If two people are acquainted, we color their edge blue but if they are strangers, we color their edge red.

The original problem now reads: *Prove that if the edges of K_6 are variously colored blue and red, then there is a blue triangle or a red triangle.* I gave the proof in the prior issue of this column. You were asked to show that the “6” in K_6 was the minimum.

Problem 1

Demonstrate that it is possible to color the edges of K_5 (the complete graph on five vertices) blue and red such that no monochromatic triangle is formed. (A “*monochromatic*” triangle is one with edges of only one color.)

■ **Solution:** Take the graph of K_5 shown in the prior column and color the perimeter edges: $\{1,2\}$, $\{2,3\}$, $\{3,4\}$, $\{4,5\}$, $\{5,1\}$ one color, say blue, and the interior edges: $\{1,3\}$, $\{3,5\}$, $\{5,2\}$, $\{2,4\}$, $\{4,1\}$ the other color, red. Observe that all edges of the graph are colored and there are no monochromatic triangles.

You were then challenged to go beyond the original problem.

Problem 2

Prove that if the edges of K_6 are variously colored blue and red, then there are at least two monochromatic triangles. (The triangles could be the same or different colors.)

Each solution I received was different; so much for the perception that math problems have a single

answer. However, all solvers assumed the existence of one monochromatic triangle to start with and proved the existence of a second monochromatic triangle by contradiction. The following is based on the solution by Clive Keatinge.

■ **Solution:** Assume triangle ABC is red and the remaining vertices are X, Y, and Z. There are three edges in each triangle ABC and XYZ. Since there are 15 total edges in K_6 , that leaves nine edges each of which runs across the gap from one triangle to the other: three edges from each of A, B, and C to each of X, Y, and Z. These same nine edges can also be viewed as three edges from each of X, Y, and Z to each of A, B, and C.

If two of the three edges going from X to triangle ABC are red, we get a second red triangle so at least two of the edges from X to ABC must be blue. The same holds for Y and Z. Thus, there are at least four blue edges from the pair of vertices X and Y to ABC. Thus, one of ABC’s vertices must get two blue edges, one from X and one from Y, which implies that edge XY must be red. Similarly, edges YZ and XZ must also be red. And so, XYZ is a second monochromatic triangle.

Solvers: Bob Conger, Clive Keatinge, Rui Guo, David Promislow, Jason Shaw, and Al Spooner

AD INDEX

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1965—A Very Special Year

IN ADDITION TO 1965 BEING THE YEAR THE AMERICAN ACADEMY OF ACTUARIES WAS FOUNDED, it was also a very special—and indeed pivotal—year for many other reasons.

For me, it was the year I graduated from high school, left my parents' safe nest in Akron, Ohio, and began my independence at the University of Michigan. That summer, I attended the 1964–65 World's fair, which gave me a global perspective. The Academy and I, in a sense, came of age together.

Looking at political issues, the Great Society programs expanded health care (Medicare and Medicaid were established in 1965), along with other anti-poverty initiatives. The landmark Voting Rights Act—the major civil rights legislation of the 1960s—prohibited racial discrimination in voting. It also helped spur the formation of the National Organization for Women the following year, to help enforce the Voting Rights Act, which banned sex discrimination in employment. Yet progress was uneven: Abroad, Rhodesia's white-minority government declared independence from Britain, drawing international condemnation; at home, I learned firsthand that prejudice endured when my randomly assigned freshman roommate asked, upon discovering that I was Jewish, where my horns were hidden.

A pivotal period in U.S. history was beginning, with the first large-scale U.S. combat troop deployment in Vietnam, contributing to a period of substantial social disruptions and cultural upheavals. A couple of years later, I was turned down by the army (for physical reasons) for service.

Music, a key reflection of culture, was also undergoing transformation. Simon & Garfunkel's "The Sound of Silence" was

re-released with electric instruments—not only was it a No. 1 hit, but also the first (and perhaps only) song I ever memorized. At the same time, Bob Dylan shocked traditionalists by going electric in his 1965 Newport Folk Festival performance. The Beatles released "Help!" and "Rubber Soul," the Rolling Stones had "Satisfaction," and The Who gave us "My Generation." As I arrived at the University of Michigan, I walked into the golden era of Motown—The Supremes, The Temptations, and Smokey Robinson—right in my backyard.

The cultural shift was unmistakable. The last movie I saw as a high schooler was *The Sound of Music*; the first I saw in Ann Arbor was the Beatles *Help!*. Many in the older generation reacted with horror to the mop-heads. Clearly, the times were a-changin'.

In terms of demographics, 1965 was a pivotal year. It marked the shift from the post–World War II baby boom to an era of slower population growth and new immigration patterns. The U.S. total fertility rate, which had peaked at about 3.7 children per woman in the late 1950s, had dropped to around 2.9 by 1965, foreshadowing the "Baby Bust" of the 1970s and today's level of about 1.6. Children born in 1965 were among the youngest members of the baby boom generation. The Immigration and Nationality Act of 1965 ended the restrictive national origins quota system established in the 1920s, opening the door to large-scale immigration from

Asia, Africa, and Latin America and reshaping the American population. There were approximately 6% non-native-born Americans in 1965, compared with about 16% in 2025.

We have also grown older as a nation. Over the past 60 years, the U.S. population has aged dramatically. In 1965, 9.4% of Americans were 65 or older; by 2025, that share doubled to 18.8%. Meanwhile, the proportion of children under 15 years old fell from about 30% to 16%. The median age has risen, from roughly 28 years in 1965 to around 39 today.

Technology was taking off—both the big and the small. Soviet cosmonaut Alexei Leonov completed the first spacewalk, and NASA's Mariner 4 made the first successful flyby of Mars, sending back images confirming that there were no canals. Meanwhile, Gordon Moore proposed "Moore's Law," predicting exponential growth in computing power. That same year, I took my first computer course in Michigan Algorithm Decoder (MAD), a precursor to the Fortran programming language.

Looking back, it's clear that 1965 was a year of beginnings—personal, national, and global. The Academy was born, laying the foundation for a profession dedicated to integrity, expertise, and public service. I began my own journey, and the world was setting in motion changes that would shape the next six decades and beyond. Today, the Academy continues to evolve, guiding actuaries and influencing policy, reminding us that we still live in the echoes of that pivotal year. ▲

SAM GUTTERMAN is chairperson of the Social Security Committee and member of the Retirement Practice Council.

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