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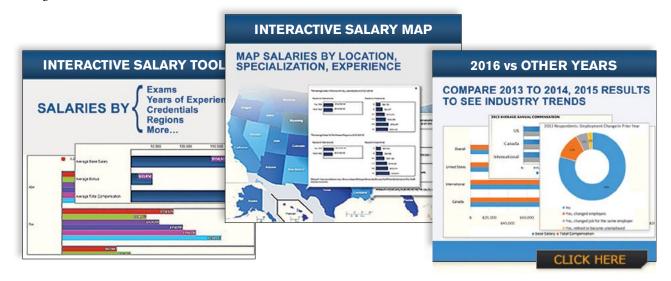
Our 2016 Salary Survey Questionnaire opens on November 1, 2016 and ends January 31, 2017.

Once again, we are calling all actuaries to fill out our brief 2016 Salary Survey Questionnaire. The survey results we publish on our website, www.actuarialcareers.com, are our way of helping you keep on top of trends in your profession.

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FEATURES

IN SYNC

Healthy collaboration: Overcoming obstacles to working together By Mark Birdsall

QUANTIFY

A look at the career path of one of Bulgaria's first credentialed actuaries Interview by Sarah Hinchey

MIND YOUR BUSYNESS

Debunking common myths about why we're so busy and how to overcome our overuse of the busyness excuse By Kelly Hennigan **36** THE STAR

How to take control of your career and performance

By Shirley Hwei-Chung Shao

44 GUIDING LEADERSHIP PRINCIPLES

Lessons learned as a life insurance company CEO By Kent H. Cannon

CLEAR DIRECTION

Practical strategies to develop your leadership skills from leadership development and executive coach Darcy Eikenberg

"A ZERO IS NOT ZERO"

Q&A with actuary and professor

Wu-Chyuan Gau



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DEPARTMENTS

- 6 EDITORIAL Thoughts on Leadership of an Insurance Department
- 8 LETTER FROM THE PRESIDENT The Year Ahead
- 12 AROUND THE GLOBE International Growth: A roundup of news from the global community
- 14 NEW & NOTEWORTHY Be a Leader: Your source for industry briefings and SOA news
- **58** TOOLBOX Business Smarts: Useful tools and resources for actuaries
- **60** RESEARCH Communicating with Data Analysis
- **62** TAKE CHARGE Information on Professional Development Opportunities

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THOUGHTS ON LEADERSHIP OF AN INSURANCE DEPARTMENT

BY KEN SELZER

n several months, I will reach my second anniversary of serving the people of Kansas as their insurance commissioner. We are focused on efficiency, responsiveness and innovation as we execute our statutory responsibilities of educating and advocating for consumers, regulating insurance companies and licensing insurance agents.

The volume of work in the department continues to increase. How do we manage this increasing workload and gain efficiencies at the same time? It starts and ends with motivated employees who are willing to always think about how they can be more efficient, while at the same time searching for ways to be more responsive to their customers' needs. This requires innovation and engagement.

Innovation comes naturally from employees who are always thinking about how they can do their jobs better and more effectively.

It is a universal truth that employees who do a good job serving their clients, internal or external, want to be recognized for their efforts and successes. They want to participate in making decisions; they want to be a part of creating a solution; they want to be engaged. This almost always requires a leader who is also interested, knowledgeable and engaged.

The regulatory environment is not so different from any other profession. The good teachers are those who figure out a way to engage their students. The good salespeople understand how to engage their customers in the sales process. The good insurance policy analysts in my department want to learn everything they can about the policy filing: They get engaged, and they look for solutions that protect the consumer and reduce the regulatory burdens for the companies that serve them.

Productive employees are energized by their jobs—in many cases, because they know they are having a very direct and positive impact on the lives of consumers.



Employees want to know that their manager or supervisor is appreciative and thankful for their contributions. Our newly implemented performance discussions are an important part of this process, but they are not the only aspect. The important function that every supervisor and effective leader performs is offering his or her thanks for a job well done. Appreciation is even more

important in an environment where salary compensation is more limited, such as in most government environments.

People want to know they are making a difference. If making a positive difference doesn't matter to them, they usually find another place to work.

Most good employees also are motivated by challenging discussions that help develop solutions to issues. The manager and employee both learn from this activity, and the insurance department consumer ultimately benefits.

Leading by example is often a great way to move activities in a positive direction. Being supportive in difficult situations is essential. Employees need to know you have their backs. Sort out the issues later if you need to.

Leadership in my book is rather straightforward. You are the example. If you aren't focused on serving the customer or consumer, if you aren't thankful and appreciative of good performance, or if you don't have a calm and steady hand in difficult customer or technical decisions, how can you—or why should you—expect anything different from your division heads or supervisors?

A razor-sharp focus on serving our consumers, producers and agents will solve almost every problem that may come our way.

Ken Selzer, CPA, is commissioner of the Kansas Insurance Department.

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The following is an excerpt from Society of Actuaries President Jeremy J. Brown's address to members at the Presidential Luncheon during the 2016 SOA Annual Meeting & Exhibit. Watch the video (bit.ly/BrownLuncheon) or read the transcript (bit.ly/Brown Transcript) of the speech in its entirety.

from the

BY JEREMY J. BROWN

Jeremy J. Brown, FSA, MAAA, EA, is president of the Society of Actuaries.

from the **PRESIDENT**

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The Year Ahead

MTIMS NOVH (6)

take tremendous pride in being an actuary. This pride stems from the high standards the Society of Actuaries (SOA) sets for its designations and that we set for ourselves.

As members of the SOA, you all know that same feeling of pride—the rigor, hard work, creativity and endless ideas that shape who we are as actuaries.

I know that many people, including my own kids, have no idea what we do ... exactly. But, they know we do important work. They recognize that, through our commitment to education, research, volunteering and advancing the profession, we work tirelessly to inform the world of the actuarial profession, the rigor it requires and its importance in managing risk.

The board recently approved the 2017–2021 strategic plan. I look forward to continuing the work with predictive analytics, diversity in the profession, collaboration with the other actuarial organizations and, of course, supporting actuarial education.

Recently, the American Academy of Actuaries (the Academy) and the SOA created an online tool to help identify the likelihood of living various lengths of time and essentially provide a range of outcomes for individuals. Thanks to this Actuaries Longevity Illustrator, the public can better understand the risk of outliving their retirement income, a very real challenge for the public today.

I am excited about our efforts with predictive analytics—because of how swiftly the SOA will be implementing predictive analytics into the curriculum and because of the exciting programs already in place. There are so many

members and groups involved with this effort, including the Predictive Analytics Advisory Group and the Cultivate Opportunities Team. Predictive analytics and the continued identification of existing and emerging opportunities for actuaries are key components of the new strategic plan.

Actuaries are lifelong learners. We don't wait to build upon our skills, our history and our unique perspectives. We understand that new ideas and new ways of thinking are crucial to our businesses.

Online videos and e-Learning will be a major component of the new Associate of the Society of Actuaries (ASA) curriculum changes. We intend to use new technologies to assess each candidate's ability to apply what he or she has learned.

For example, in the future, candidates could complete a computer-based project where they are given a data set to analyze, and then asked to draw conclusions, make recommendations and ultimately communicate their findings in a written report.

We are also creating a pilot program for a certificate in predictive analytics. We will analyze the feedback from the pilot, learning from the participants, and then forge ahead in the direction that meets the goal of educating actuaries and expanding their opportunities.

As part of our Learning Strategy, we are investigating new ways of learning, such as through video technology. This can be used in a variety of professional development activities. For example, we worked with the National Association of Insurance Commissioners (NAIC) on a series of short videos focusing on principle-based reserving.

Continued on page 10





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from the PRESIDENT

Continued from page 8

Also, new fellows now have access to online videos to further improve their communication skills, building on what was presented at their fellowship admissions course.

The new web-based Regulatory Resource provides a stream of updates for U.S. actuaries practicing in life and health. We built this resource based on your requests to help actuaries keep up-to-date on the latest regulatory changes and what they mean.

All of this work connects with our ongoing research and education to inform public policy developments and public understanding of key issues.

The SOA and the Institute and Faculty of Actuaries (IFoA) have a joint venture to offer and promote the certified actuarial analyst (CAA) qualification. This qualification is designed to enhance the skills of individuals with actuarial support roles.

This past year, the SOA was faced with its own challenges and growth opportunities. To face these challenges, we take advantage of every opportunity to work with the other actuarial organizations in the United States and around the world. We don't always agree, but the dialogue is meaningful, thoughtful and, most importantly, entirely about what is best for the future of the actuarial profession.

As a great example of where collaboration has worked well, the SOA, the Academy, the Canadian Institute of Actuaries (CIA) and the Casualty Actuarial Society (CAS) recently released the Actuaries Climate Index—an objective measure of severe weather conditions in the United States and Canada reflecting the actuarial perspective.

The actuarial profession and the SOA face another challenge: inclusion and diversity. Last year, the SOA Board approved the formation of the SOA Committee on Inclusion and Diversity.

My own family is quite diverse, so I know how the diversity of thought can grow your sphere of understanding and grow your business. I recognize firsthand the importance of what our organization is doing to increase the diversity of the profession and welcome and include candidates and members from all groups. To attract the best and brightest, the pool needs to encompass everyone.

We do have our work cut out for us. We must strive to improve our outreach through all of our diversity efforts, including those championed by the Actuarial Foundation and the SOA/CAS Joint Committee on Career Encouragement and Actuarial Diversity.

We will learn a great deal about our next steps from the results of a new study sponsored by the SOA, CAS, International Association of Black Actuaries (IABA) and the Actuarial Foundation to determine the barriers to entry and pursuit of the actuarial profession.

In closing, I will do my best to let the world know of your ambitions and accomplishments. I look forward to the year ahead, and our work to help advance the profession. ■

CAA—ENHANCING PROFESSIONALISM OF ACTUARIAL SUPPORT ROLES

The Society of Actuaries (SOA) and the Institute and Faculty of Actuaries (IFoA) established a not-for-profit, public interest joint venture organization called CAA Global. It will oversee, deliver and promote the certified actuarial analyst (CAA) qualification, which is designed to give those working in actuarial support roles, and in the broader financial services sector, a path to acquire sound technical skills and to enhance their professionalism.

CAA Global will be focused on establishing and developing the joint venture and will also conduct a process of consultation with other actuarial associations around the world to develop an accreditation system to enable them to become destination organizations for qualified CAAs. The SOA has formed a subsidiary, SOA Center for Certified Actuarial Analysts, to provide a community for individuals with the qualification to network. It also maintains the value of the qualification by holding its affiliates up to high professionalism standards, while offering professional development resources. Affiliates of the SOA Center are neither actuaries nor members of the SOA.

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International growth

A ROUNDUP OF NEWS FROM THE GLOBAL COMMUNITY

Whether you travel the world or never leave your home country, you are affected by global organizations, international requirements and the increasingly international nature of the actuarial profession itself. Here is some news from around the world.



WHEN IN HONG KONG

The Society of Actuaries (SOA) is now offering fellow of the Society of Actuaries (FSA) candidates of the Individual Life and Annuity Track the new module "Regulation and Taxation," featuring Hong Kongspecific content.

This new module was developed in partnership with the Actuarial Society of Hong Kong (ASHK), and contains regulatory information specific to Hong Kong. It also provides an understanding and appreciation of the regulatory and tax environments that affect the life and annuity insurance industry overall, and the actuarial profession in particular. All content and audiocasts are presented in English and feature an equal split of Hong Kong and global content.

The SOA also offers a "Regulation and Taxation" e-course with a focus on Taiwan.



SOA PRESIDENT AND EXECUTIVE DIRECTOR IN CHINA

In September, Gregory Heidrich, executive director of the Society of Actuaries (SOA), spent several days in Beijing, China, meeting with SOA stakeholders in the area. At a lunch with SOA China Committee members, Heidrich expressed his gratitude for their invaluable assistance in planning the inaugural SOA China Annual Symposium that took place Sept. 1–2, in Beijing.

At a meeting with leading professors from three local universities with significant actuarial science departments—Tsinghua, Nankai and Peking Universities—Heidrich had a chance to learn about the issues facing actuarial candidates in the area. Heidrich also had the opportunity to discuss the SOA's General Insurance track at a meeting with the largest general insurance companies in Beijing.

While in Beijing, Heidrich met with Dr. Yulong Zhao, deputy director of the Financial and Accounting Department of the China Insurance Regulatory Commission (CIRC), on Sept. 21, for an informal discussion.

Zhao stressed that in recent years, actuaries in the insurance industry have played an increasingly important role in the industry's development and are acquiring new responsibilities. He also noted that as actuarial associations grow and develop, it is fundamental to coordinate the relationships among the regulatory entities, the industry and the schools to create a better environment and provide better resources to all members.

"As the world's largest actuarial professional association, the SOA is committed to improving our risk decision-making to serve the community through research and education to promote actuarial expertise," Heidrich says. "Actuaries are at the forefront of financial and social risk to provide professional advice, risk assessment and management of the leading talent. The SOA has always valued the importance of its development and role in China, as one of Asia Pacific's most active insurance markets."

On Sept. 23, Heidrich was joined by 2016 SOA President Craig Reynolds, FSA, MAAA, and Ann Henstrand, senior director, International, at the 17th China Actuarial Annual Conference in Shanghai. In a private meeting with the China Association of Actuaries (CAA) President Dr. Chen Dongsheng and CAA Secretary-General Wang Zheng, Reynolds, Heidrich, Henstrand and the SOA's Lead China Representative, Jessie Li, committed to begin planning together for the 2017 executive exchange program that will bring a group of senior actuaries from North America to China.

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Here's your source for industry briefings and SOA news. Important headline information, section highlights and current stories—in short, news to note.



EXPANDING YOUR LEADERSHIP SKILLS WITH THE SOA'S LEADERSHIP & DEVELOPMENT SECTION

BY KELLY HENNIGAN & MITCH STEPHENSON

The Society of Actuaries (SOA) has a wide array of professional interest sections, many of which are focused on specific business practice areas. The Leadership & Development (L&D) Section is unique in that it is one of the few SOA sections applicable to all actuaries—regardless of their career trajectory.

The L&D Section is a forum for the exchange of innovative ideas, as well as a resource for current business skills and development opportunities. The mission of the L&D Section within the SOA is to promote and facilitate leadership, business and personal skills development for section members and affiliates, and for the current and future members of the SOA.

The key objectives of this section are to:

- Provide tools to facilitate personal career development.
- Provide results-oriented skills and knowledge for current and developing managers.
- Bridge from technical knowledge to decision-making and implementation.
- Develop educational opportunities and provide resources for all actuaries who strive to become more effective leaders within their business organizations.
- Offer opportunities to network, enhance management practices and experience professional feedback.

Section members have access to printed issues of the L&D Section newsletter, *The Stepping Stone*, the e-newsletter *LeaD*, the getAbstract library (offering summaries of business books), discounts on section networking events, L&D podcasts and webinars, and L&D's LinkedIn group.

Over the last few years, the L&D Section has continued to evolve. One of the most visible changes was the 2015 name change—from Management & Personal Development (MPD) to Leadership & Development (L&D). This was an outcome of listening to our members and taking into account survey feedback.

Section leaders participated in a face-to-face meeting in 2016, which enabled the group to level-set on priority initiatives and resources—specifically with a focus on The Stepping Stone, meeting speakers and networking opportunities for section members.

Members can expect to see continued transformative efforts with *The Stepping Stone* in the form of shorter, "blog-style" articles, and the piloting of an e-newsletter communication containing current events and resources.

The section will continue to engage quality speakers at SOA meetings and symposiums. Nonactuarial speakers such as executive coaches, career consultants and social media experts—along with actuarial-related leadership panel sessions, have received positive feedback and counterbalance the technical topics typically offered at SOA meetings.

The section will continue to facilitate and offer a variety of networking opportunities for actuaries. In addition to the popular Women's Leadership Forum and Luncheon



action

at the SOA Annual Meeting & Exhibit, the L&D Section Council offered a "Breakfast with Senior Leaders," held at the 2016 SOA Annual Meeting & Exhibit in October, where each breakfast table was hosted by an experienced actuary who has been in a senior leadership, senior management or C-suite role.

Section members can expect to see the L&D Section offer a variety of different resources. For example, in 2014, the section began recording podcasts. Now, there are 10 available on the SOA's website and iTunes, and more will be added in the future. Also, the L&D Section offers regular webinars with a variety of speakers and topics. In 2016, one of our webinars attracted more than 600 participants!

It's an exciting time for the L&D Section and the actuarial field. We continue to grow and adapt, while remaining responsive and relevant. We invite you to join the L&D Section! If you are interested in learning more, please visit SOA.org/ld.

Kelly Hennigan, FSA, CFA, was the 2015–2016 chairperson of the Leadership & Development Section Council.

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SOA SECTION MEMBERSHIP

COME JOIN US

Join the SOA's Leadership & Development (L&D) Section.
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- getAbstract's library, offering summaries of business books
- Discounts on section networking events
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- L&D's LinkedIn group

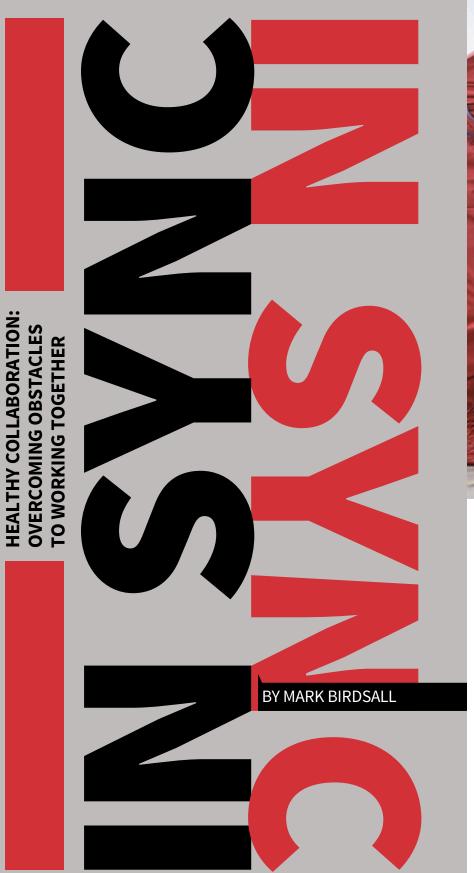
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JOIN ANOTHER SOA SECTION

The SOA has 20 sections dedicated to bringing their members important and relevant information about their area of interest through a variety of channels. Members of the SOA and fellow industry professionals can join one or more sections.

Visit bit.ly/SOASection to join.







hanks to a broad education through the examination process, actuaries are often leaders, formally or informally, in the organizations they serve. As available theory and tools improve, and as laws, regulations and other factors affecting our work change, we must be lifelong learners and continuously update our knowledge and refine our skills. This article discusses a strong trend in organizations that has been enabled by improved software tools: collaboration within organizations and among organizations. Experience has shown that not all collaboration efforts are effective, so this article discusses elements contributing to healthy collaboration.



During a management training exercise in which I participated, attendees were divided into groups of six to eight people sitting at round tables. At one point, the facilitator asked the group to brainstorm ideas for the uses of a brick—a task not requiring any specialized knowledge. First, each person at every table produced his or her own list of ideas, and then the people at each table produced a joint list that removed any duplicates. The most responses any individual participant conceived was about 100 ideas. However, the joint lists developed by the groups at each table all had more ideas than the longest list from the individual participants.

This simple exercise was a powerful object lesson regarding this idea: "None of us is as smart as all of us."1 While this principle might be considered self-evident, the complexities of organizational culture and reward systems, combined with egos and different communication styles, provide obstacles in creating a collaborative environment within and among organizations. However, there are

effective ways to address these obstacles, most of which begin with examining one's own attitudes and behaviors.

LAY ASIDE EGO

When I first joined the Kansas Insurance Department about six years ago, I was pleased to discover the collegial relationships among state regulatory actuaries. I also learned that a regulatory actuary sometimes addresses issues he or she has little or no prior experience with. The Kansas Insurance commissioner at that time, Sandy Praeger, had served previously as president of the National Association of Insurance Commissioners (NAIC) and wanted her staff to be actively involved in NAIC working groups. So, I joined all three actuarial task forces at the NAIC and became involved in some of the subgroups of those task forces. I quickly learned that if I was going to be an effective member of those groups, I needed to be honest with others and myself about what I didn't know. In effect, I had to set aside my ego and allow myself to



BEING ON AN EFFECTIVE TEAM BRINGS GREAT PERSONAL SATISFACTION, BUILDS CONFIDENCE IN THE TEAM PROCESS AND PROMOTES RELATIONSHIPS OF RESPECT AMONG TEAM MEMBERS.



become vulnerable to others. As I did this, my discovery was that my regulatory colleagues, as well as representatives of the American Academy of Actuaries (the Academy) and other groups, turned out to be generous (and patient) with their explanations in answer to my questions. I also discovered that asking questions appeared to help clarify issues for others. Laying aside ego and making myself vulnerable to "you should know that already" turned out to be one of the best approaches I could take in becoming a more effective member of the NAIC task forces and subgroups. I not only learned a lot from participating in those discussions, but I was able to contribute meaningfully because I was willing to ask questions.

BE OPEN-MINDED AND RESILIENT

Earlier in my career, I had the opportunity to be a member of cross-functional company teams for developing new products. The sizes of these teams varied with the size of the company and the complexity of the products being developed. In these product development projects, a balance had to be struck between competitiveness and profit, between leading-edge creativity and practical implementation, and between the iterative nature of the product development process and achieving target dates.

Members of the product development team adopted different roles. Competitive intelligence about products already in the marketplace was necessary. A team member needed to record detailed notes of the discussion to ensure any progress made was retained. Certain team members were terrific at generating ideas. Others were knowledgeable about current administration system capabilities and what it would take to make modifications, if needed. Someone (or perhaps

everyone) on the team needed to be mindful of profits and surplus. But perhaps the most important aspect of the team was developing a joint confidence that the project would be successful—that the team would be capable of surmounting any obstacles that arose.

On several of these projects, we reached a point where it seemed that we could go no further because a suitable balance between competing goals, such as competitiveness and profitability, could not be achieved. However, as product development teams, we learned that there was always a solution, even when we couldn't yet see what it might be. The keys to finding the solution were to be open-minded and persistent in experimenting with different ideas. Much of this work was done outside of the formal team meetings. With analytical skills that often crossed departmental boundaries, an actuarial team member always was instrumental in helping to generate these ideas and in making connections with team members from other areas in the company.

Being on an effective team brings great personal satisfaction, builds confidence in the team process and promotes relationships of respect among team members. Being a good collaborator on a team can overcome stereotypes, as team members get to know each other as people instead of titles.

SEE THE BIG PICTURE

John Abele wrote an article titled "Bringing Minds Together,"2 in which he discussed building a community of collaborators. This community could either be inside of a single entity, or include collaborations among individuals or entities that are not organizationally related. He states: "Community building begins with convincing people who don't need to

work together that they should. This depends on:

- Inspiring them with a vision of change that is beyond any of their powers to bring about individually;
- **■** Convincing them that the other collaborators are vital to the effort and equal to the challenge; and
- Preventing any one party from benefiting so much that the others feel their contributions are being exploited."

He quotes Margaret Mead as stating: "Never underestimate the power of a small dedicated group of people to change the world. Indeed, it's the only thing that ever has."

People are motivated by feeling that their work is making a difference. The prospect of truly having a significant positive impact on our organizations through our daily activities can overcome cynicism and engage people to put forth their best efforts. Actuaries are uniquely qualified to help people see and understand the significance of the work being done because of the integrated nature of our educational system. The road to fellowship incorporates detailed study of many topics, including marketing, underwriting, accounting, investing, economics and risk analysis. We can see how the various parts of a financial organization or system interact with each other.

In a company setting, I have had interactions with people from every department because actuarial work touches each aspect of company operations. Even in discussions about principle-based reserves (PBR), it has been helpful to remind people of PBR's original purpose-embedding risk analysis in reserve and capital calculations. Keeping our eyes on the bigger picture helps improve communication, avoid distracting side-issues and stay motivated to complete worthwhile projects.

COLLABORATION IS A POWERFUL TOOL TO ACCOMPLISH GOALS BEYOND THE REACH OF ONE INDIVIDUAL OR ORGANIZATION.



BUILD TRUST

Abele also mentions the importance of trust among collaborators, trust that is earned by "true authenticity." In my experience, this authenticity must start with the person or organization initiating the collaboration as other participants are invited to join the collaboration community or project. I have found honesty to be disarming in my communication with others. There is so much "spinning" in communications these days that straightforward honesty sometimes may come as a surprise.

In management training, communication styles are examined and techniques practiced. However, using these skills to manipulate others in a collaboration must be scrupulously avoided. Each party must be committed to helping the other participants in the collaboration succeed, as well as themselves. In *The Seven Habits of Highly Effective People*, Stephen R. Covey states this principle succinctly as "Win Win or No Deal." In a collaborative setting, this axiom may be expanded to "Win Win Win Win ... or No Deal."



VALUE DIVERSITY

While I was serving as a group actuary for a mid-sized life insurance company, a team was assembled to develop a new group administration system for group term life insurance business. The group was led by an experienced IT person, and the team consisted of subject-matter experts from different parts of the company. Up to a point, this project was one of the most enjoyable team projects that I have experienced. We each found our natural roles on the team. We respected each other and enjoyed working together.

Ultimately, however, this collaborative project was not successful. Why? We designed a luxury car system instead of the economy car our company could afford. Our design for the new group system was not implemented.

We were a unified team, but we didn't realize that we were missing several pieces for a successful project. As a team, we did not lay out the expectations and parameters of the project well enough. Each of us on the team needed to become "self leaders"4 on the project, each taking responsibility for the entire project and not just representing our

FEATURE HEALTHY COLLABORATION

departments. Most important, we were missing a team member in the role of a constructive skeptic. There was no one to question our luxury car approach to the design. We were participating in groupthink and didn't know it.

The role of constructive skepticism in creating a healthy and successful collaboration relates to valuing diverse points of view. Some collaborators may be hesitant to express points of view different from the more vocal members of a collaborative community or team, so the group (and particularly its leaders) must intentionally solicit such input. It is important to discern whether the diverse point of view is expressed because of misunderstanding the issues or because of a correct understanding of the issues. If the latter is the case, this additional point of view can become a valuable catalyst for producing a better project result. The authors of Collaboration Begins with You state: "Conflict can be very healthy within a collaborative group, as long as everyone sticks to the issues and things don't get personal. It can lead to breakthrough learnings and innovation." Open-minded skeptics can be among the most valuable collaborators, whereas closed-minded skeptics are rarely constructive.

BUILD A COLLABORATIVE GROUP, INCLUDING FOR PEER REVIEW

One important form of collaboration is peer review. Within our company, I have had the chance to review documents produced by others and offer suggestions. Likewise, I have been the beneficiary of helpful reviews of my work. Recently, I discovered that collaborating internally on an assumption-setting project with two other people in our firm provided significant value. These two individuals have more expertise than I do in certain areas, and collaborating with them produced excellent discussions and useful insights in both directions. Peer review improves project quality, helps avoid mistakes and creates a collaborative relationship for the benefit of all parties that can include sharing ideas and asking questions unrelated to the peer review.

Somewhat to my surprise, I have found that I enjoy research, including expanding experience studies in support of setting assumptions for cash flow projections, such as PBR calculations. Since I don't have all the tools needed to do the job alone, I have sought to build a network of collaborators with whom to work. I was very fortunate to readily find like-minded individuals and organizations that genuinely share common interests in the subjects we research.

Together with one group of researchers, we are looking at final expense and preneed mortality and lapse experience, and we are devising ways to improve company experience in those lines of business. We are working on using predictive modeling tools to develop dynamic functions of surrender and utilization for variable annuities with guaranteed lifetime withdrawal benefits, along with fixed indexed annuities with similar living benefits. With other researchers, we are going to be looking at level premium term life insurance mortality and lapse experience, as well as using predictive tools to develop dynamic functions of shock lapse and mortality deterioration. With still other researchers, we are looking to build a multirisk scenario generator that will be able to produce scenarios at specified probability levels for the key risks of long-tailed insurance products. We are also looking to develop an objectivity measure of assumptions that can give regulators greater assurance of reasonable assumptions and therefore be used in regulatory submissions.

Collaboration is a powerful tool to accomplish goals beyond the reach of one individual or organization. Truly, "None of us is as smart as all of us." To overcome obstacles such as organizational culture and interpersonal communication styles, the prospective collaborator must look first in the mirror and lay aside his or her ego to become an active participant in asking useful questions, become open-minded and resilient in the face of challenges, help other collaborators understand and stay focused on the important meaning of a collaborative project, build trust with other collaborators through authentic interest in the success of all collaborators, and learn to value and generate new insights based on diverse points of view.

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FOUR STAGES OF TEAM DEVELOPMENT

BY DAVID RUIZ

As we work to build a collaborative team, it's important to remember the stages of team development proposed by Bruce Tuckman in his seminal 1965 work in the *Psychological Bulletin*,¹ later revised and expanded upon in 1977² and 2001,³ and widely referenced in leadership development courses. I first heard of his stages of team development when I attended advanced leadership training offered by the Boy Scouts of America. Tuckman's theory is that every group moves through four stages on its way to becoming a high-performing team. By recognizing these stages, we can adapt our leadership style to the needs of the team.

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FORMING

At the beginning, everyone is excited about being a part of the team. Even though they aren't sure how things will turn out, they know it will be a great experience. At this stage, the team is characterized by high enthusiasm and low productivity. While the team forms, the role of the leader is to give clear direction, set out the goals and objectives, and help the team members understand exactly what the leader expects them to do.



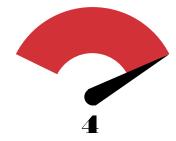
STORMING

Once the team gets some experience working together, the members inevitably start to disagree on direction, scope, vision and so on. Factions may form as the group loses track of the big picture, communication becomes strained and trust erodes. The job of the leader is to help the team work through this important stage, allowing members the space to express their different opinions and to "clear the air."



NORMING

As issues are addressed and resolved, the team's morale begins to increase. Trust builds, productivity rises and the team begins working together toward the common goal. At this point, the leader should draw out the opinions of all members and leverage the diversity of the team. As conflicts arise, the leader must take quick action to deal with the issue and maintain the positive climate.



PERFORMING

The final stage is marked by high productivity and enthusiasm. The team is collaborating to meet the original goals and objectives, and the members are excited to be on a high-performing team. Communication is open and trust is high. In this stage, leadership is shared as the team works toward exceeding standards and continuous improvement.

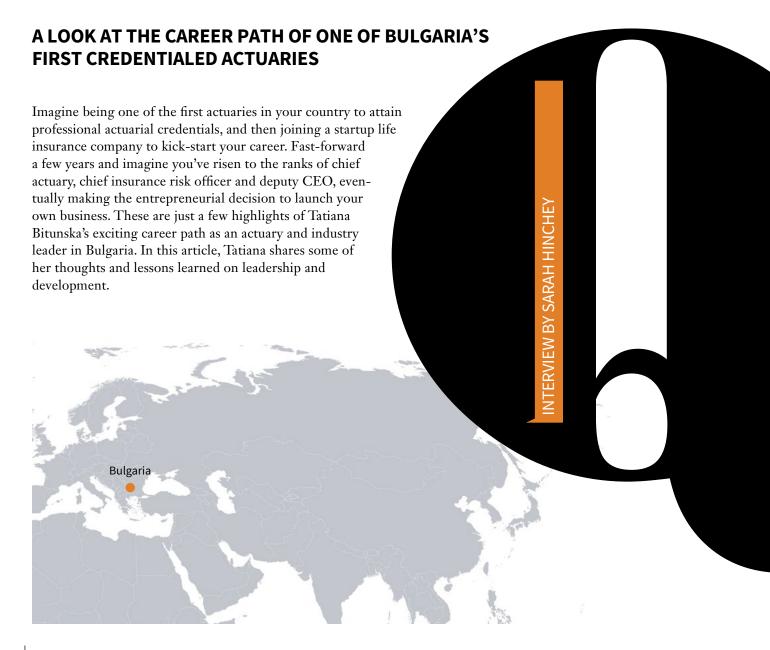
Every team moves through the four stages of development, and

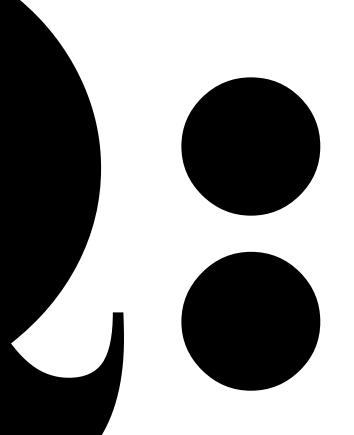
may slip back a stage or two as new challenges or opportunities arise. Being resilient, laying aside ego and working together will allow the team to meet the challenges and emerge stronger than when they started.

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Tell us a little about your background. How did you make the decision to become an actuary?

During high school, I had so many different interests astronomy, literature, chemistry. But my big love was math. Math is so beautiful! You can search for hidden rules and relations (like golden sections) for ages. Starting from the classical geometry of Euclid, you cannot ignore the magnificent theory of Lobachevski. ... So, the most natural choice for me was to study math.

By chance, my tutor at the university was a strong supporter of the actuarial profession. I prepared a master's thesis on probability of ruin, based on a Poisson distribution model for an insurance company. That was when I realized how interesting an application of math could be in the financial world. I was attracted to the profession by the scientific approach resulting in very pragmatic outcomes.

One year later, several Bulgarian professors from the Department of Probability and Statistics, with the support of the Institute of Actuaries in the United Kingdom, established the Bulgarian Actuarial Society and launched a postgraduate qualification program for actuaries. In 1996, the first 20 local actuaries were certified, and I was one of them. That is how everything started.

Q:

Tell us about your career path. What are some of the key roles you've held?

My first job was in a new life insurance company in Bulgaria (now part of Uniqa Group).

Within three months, I was assigned the responsibility of setting premiums for the new term life and endowment products. It was a fast-paced and inspirational start for my career—I had the chance to work with great professionals who set very high standards for business management, which I have tried to follow in my professional path.

The next big step in my professional career was when I joined ING Pension Insurance Company in Bulgaria as chief actuary at the beginning of 2003. One of my responsibilities was to develop and implement a valuation calculation model for our pension business. It was something completely new for me and, hence, extremely interesting.

Shortly after, I began working with the CEO of the company to identify new business expansion opportunities and to develop a growth strategy. The life insurance market in Bulgaria had already been established, and we were a new player to the game. A lot of large multinational companies—Allianz, Generali, VIG, Uniqa, KBC—already had a market position. Knowing ING's insurance strength in other countries, it was decided to expand into this market in Bulgaria. The business plan for setting up the life insurance business in Bulgaria was prepared, and the implementation phase started only a few months later. It was a challenging and inspiring period with many new business relationships, cross border activities and valuable cooperation with ING colleagues abroad.

Over the years, I have held several additional roles within ING Insurance Bulgaria: chief insurance risk officer, member of the management board and deputy CEO. These roles allowed me to work with different departments to identify best practices and improve processes across the local organization. I learned how cooperative people are when they know you will support them and help them to become better at their daily jobs.

The last several years were particularly challenging and turbulent times for insurance specialists and actuaries in Europe. In 2012, we had to comply with the European gender-neutral pricing requirements and adopt unisex prices for insurance products. After that, the implementation of the European Solvency II insurance regulatory requirements was added to the agenda. As president of the Bulgarian Actuarial Society from 2010–2015, I worked



Tatiana Bitunska

closely with the Actuarial Association of Europe and with the local financial regulator on these topics. Solvency II still is a very hot topic for the Bulgarian insurance market, and I am engaged with it today, but in a different role.



Can you tell us about a person who has had a significant impact on you as a leader? How did this person impact your life?

My first CEO, Mr. Jordan Genchev, taught me that a great leader is one who knows each day what is on everyone's plate. Each morning, Genchev visited everyone in the company just to ask, "How are you today?" You can imagine how energizing and supportive such a behavior is for anyone! I took that simple but really big lesson from him and have followed it as rule No. 1 in my career. Caring about people gives them comfort and the motivation to do their best.



What are the most important decisions you face daily as a leader in your organization?

Proper prioritization and delegation of tasks to the right people are the most important decisions in my daily work. It is critical to understand what is really urgent and should be solved immediately, and who is capable to do it.

66 I learned how cooperative people are when they know you will support them and help them to become better at their daily jobs."



How do you foster creative and innovative thinking within your organization? How are ideas shared and implemented?

Some of my colleagues and I recently set up a new actuarial consultancy in Bulgaria. It is a new kind of role for me. It is not only about managing your own tasks, but also managing clients' needs and expectations. It is something completely different from the work in a big multinational corporation.

It is a challenge because development in the actuarial field depends on innovations, but sometimes these innovations are expensive and, hence, not affordable for the small players in the local insurance market. Efficient consultants are able to step into the shoes of their clients and be aware of local market practices. My perception is that the local actuarial consultancy is the missing link between the innovations and achievements of the large global consultancies and the needs of local businesses in developing countries like Bulgaria.



What challenges do you face in balancing actuarial development of your team with business needs?

Ensuring proper development of the actuaries on my team is a big challenge for me. Actuaries are often a bottleneck

for so many different initiatives running across the company. That is why there is no suitable period for specialized trainings. It is challenging to balance the training needs of actuaries with the business demands coming from various stakeholders.

Also, the Bulgarian Actuarial Society has difficulties in meeting its initiative to keep local actuaries well informed about recent developments in the actuarial field. Usually, we manage to organize one or two seminars a year with international lectures. It is not easy for a small professional organization.



What is one characteristic every great leader should possess?

Every great leader should really know each member of his or her team. Under-

standing everyone's strengths and weaknesses enables the leader to assign the right roles and responsibilities to leverage everyone's strengths. Knowing people means they are predictable for you; therefore, you as a leader are not exposed to significant turbulence or surprises. The really great leader is one who is able to delegate the task to the right people, support them throughout the execution and, most important, is the one who remembers to say "thank you!" at the end.

Every leader needs smart employees, but smart employees will not accept a mediocre manager. That is why you, as a leader, also should be conscious of your own personal and professional development.



What do you do to ensure that you continue to grow and develop as a leader?

It's very important to me that I continue to grow as a person and as a professional.

Therefore, I have never stopped challenging myself, often daring to take risks and try new things. Take my startup consulting business as an example: It's something completely new and challenging for me. During the last three months, my team and I have been working on the Solvency II Balance Sheet review as independent external reviewers. The Solvency II Balance Sheet review for the Bulgarian insurance market is an extremely ambitious project with extensive scope. That is a project of the European insurance regulator, the European Insurance and Occupational Pensions Authority (EIOPA), and the local financial regulator, the Financial Supervision Commission (FSC), which aims to check the compliance of the local insurance market with the requirements of the Solvency II framework.



What advice would you give someone going into a leadership position for the first time?

To believe in the people he or she is going to manage. And listen to them. To ask (require) them to work as a team and to support each other as family members. Sometimes it is not so easy, but if you manage, it works. The leader is not always a manager, but the leader is someone people respect and are ready to follow. The leader is able to recognize the bright ideas, analyze the situation and organize the people to realize the idea in the best way.



What advice would you give to young actuaries starting their careers?

Actuarial work is at the heart of the insurance business. Actuaries play the role of

the great equalizer—they need to find the right balance among the interests of all stakeholders, including customers, distributors and shareholders. Therefore, actuaries need not only a strong mathematical background, but



they also need to properly understand the economic and business environment, to know the legislation framework and to be able to assess financial consequences for every decision.

Sometimes, actuaries are negatively perceived as being too academic. It is important for them to be able to step into shoes of others and to explain ideas behind sophisticated models in a simple language. To strengthen their position, actuaries need to learn how to present their work in a clear and concise way.

I would advise young actuaries to sit for qualification exams as early as possible and to start practicing immediately—they will collect valuable experience that way. Never stop learning, and follow innovations and IT solutions. Last but not least, it is extremely important to listen to your clients and the business. ■

Tatiana Bitunska, FQA, has experience in various leadership roles, such as chief actuary, chief insurance risk officer and president of the Bulgarian Actuarial Society.

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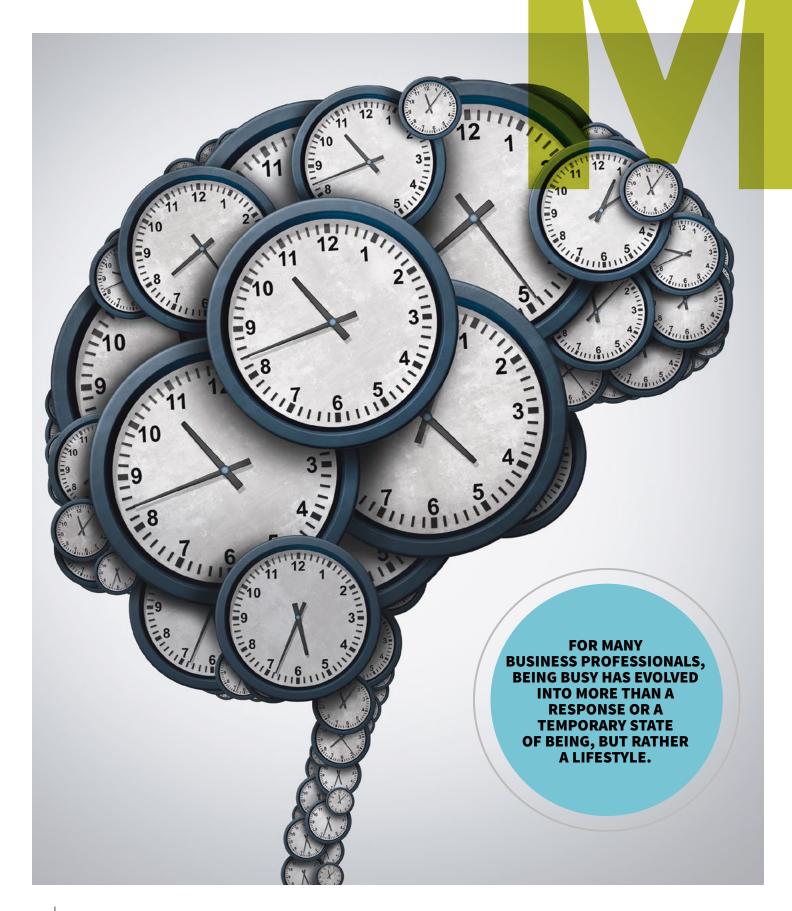
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DEBUNKING COMMON MYTHS ABOUT WHY WE'RE SO BUSY AND HOW TO OVERCOME OUR OVERUSE OF THE **BUSYNESS EXCUSE**

BY KELLY HENNIGAN

y the time you read this article, my grandmother will be a centenarian—a person who lives to or beyond 100 years of age. According to the 2010 U.S. Census Special Report on Centenarians, this feat has been achieved by only .017 percent of people in the United States! Worldwide, there are estimated to be 450,000 centenarians,1 and more than 80 percent of that group is comprised of females. Out of this cohort of centenarians, it is probable that 450 individuals (1 in every 1,000) will reach the status of "supercentenarians"—living to or beyond 110 years of age. Even rarer is living to age 115, as there are only 46 verified cases in recorded history of individuals indisputably reaching this mature age.2

Although the following quotation is attributed to Dr. Seuss, my grandmother very well might have said the same to me during a recent conversation reflecting on her life: "How did it get so late so soon? It's night before it's afternoon. December is here before it's June. My goodness how the time has flown."

Most of us likely have had these conversations—perhaps not with a centenarian, but with a colleague—about a weekend that passed by too quickly or that the upcoming year-end will be a rush to the finish line between work and personal obligations. Whether we lead a large team, a small group or are focused on leading ourselves, we all have fallen into what Tim Kreider calls "The Busy Trap" in his synonymous 2012 New York Times article. "In the 21st century you've probably had to listen to a lot of people tell you how busy they are. It's become the default response when you ask anyone how they're doing: 'Busy!' 'So busy.' 'Crazy busy.' ... And the stock response is a kind of congratulation: 'That's a good problem to have,' or 'Better than the opposite."

For many business professionals, being busy has evolved into more than a response or a temporary state of being, but rather a lifestyle. The habitual routine of falling into the "busy trap" can result in isolation on a personal level due to becoming more and more self-absorbed with busyness. This promulgates the continued excuse of busyness, which perpetuates feelings of remoteness and inaccessibility. As many individuals in senior management positions already experience "leadership loneliness," the busyness factor further exacerbates these existing emotions of isolation. The February 2012 Harvard Business Review featured a story that cited nearly 70 percent of first-time CEOs believe their feelings of isolation at the top negatively affected their performance. However, CEOs are not the only ones who feel these emotions-managers and others in leadership positions within volunteer organizations feel similarly—which affects decision-making and overall organizational culture. As Socrates once said, "Beware the barrenness of a busy life."

But, in reality, are we really as busy as we think we are? How can we avoid falling into the "busy trap"? The intent of this article is to explore some of the common myths related to the topic of busyness and our overuse of the "busyness excuse." Additionally, it provides some practical guidance on how to know—and perhaps more importantly, mind—your busyness.

MYTH #1: A COMMON MISCONCEPTION: BUSYNESS = PRODUCTIVITY

"Being busy does not always mean real work. ... Seeming to do is not doing." —Thomas Edison, inventor

Consider the term "busy" versus "productive." Busyness is often self-imposed and related to work assignments, volunteer activities, and other social or personal commitments that we have put upon ourselves. Even children fall into the "busy trap," participating in academic, sports-related, arts-based or other extracurricular activities in their spare time.

For some, it is reassuring to have this constant busyness, as it is a comfort and security blanket. Certainly being in demand all the time equates to a full and meaningful life! Business leaders who have worked hard to achieve aspirational roles may (incorrectly) assume that the busyness goes along with the position. In actuality, this is not the case: Busyness is affecting the ability to truly live and thrive—both professionally and personally. As author Todd Stocker comments, "I wanted to figure out why I was so busy, but I couldn't find the time to do it." To manage the ever-present busyness and strive toward greater productivity, consider:

- Creating time buffers to avoid the hectic feeling of being rushed.
- Rebalancing priority items while creating a "capture list" of items not yet prioritized.
- Striving for simplicity.

Prioritizing can be challenging for many of us. Author Stephen Covey states, "The key is not to prioritize what's on your schedule, but to schedule your priorities." So much competes for our time, and we must learn to strike the perfect balance. Some tactics that help with managing priorities include:

■ Pretend you have less time than you actually have.

This will force you to focus in on what truly matters.

- Use technology to your advantage. Research what technology works best for you. For example, voice recognition techniques or time management/productivity apps could help deal with competing priorities.
- **Do nothing!** Rather than tackling the work effort yourself, consider delegating to others in your department or across disciplines. (See the "Do Nothing!" sidebar on page 35.)

We all live in a very complex and fast-paced world, where simplicity is not always evident. Elaine St. James, author of the book *Simplify Your Life: 100 Ways to Slow Down and Enjoy the Things that Really Matter*; states: "There are often many things we feel we should do that, in fact, we don't really have to do. Getting to the point where we can tell the difference is a major milestone in the simplification process."

St. James started down her path to simplifying via decluttering. While perhaps easier said than done, decluttering involves identifying what is essential and eliminating the unnecessary. At work, this includes:

■ Decluttering desks and computer desktops.

Organization can be mentally uplifting and motivating.



- **Decluttering calendars.** Decline meetings for which you are an optional attendee. Let go of the obligatory feeling that every phone call or email requires an instant response.
- Learning how to just say no—to extra meetings or requests—without compromising your professional reputation.
- **Blocking off time on your calendar** dedicated to getting actual work accomplished.

Employing these tools to manage busyness versus productivity, as well as prioritizing and simplifying, will enable you to reclaim some time. What you end up doing with the newfound time is up to you!

MYTH #2: THE ILLUSION OF PRODUCTIVITY: TECHNOLOGY AND MULTITASKING

"Technology can be our best friend, and technology can also be the biggest party pooper of our lives. It interrupts our own story, interrupts our ability to have a thought or a daydream, to imagine something wonderful, because we're too busy bridging the walk from the cafeteria back to the office on the cell phone." —Steven Spielberg, filmmaker

Both the access to technology and the ease of multitasking have given us a crutch to allow us to think we are busier, more important and more productive than we actually are. Whether we are a C-suite executive, a manager of a small team, or navigating ourselves through work and life, our phones are continuously buzzing with reminders and notifications. We have the ability to seamlessly bounce among various forms of media via our smartphones and the internet, and are inundated by information 24/7.

This reliance on technology is not only a distraction, but an addiction. Consider the following results related to mobile device owners and their technology habits from the Google report "Micro-Moments."

- On average, people check their phones 150 times a day and spend 177 minutes using them.
- 87 percent always have their smartphones at their side, day and night.
- **68 percent** check their phones within 15 minutes of waking up.
- 91 percent turn to their phones for ideas in the middle of a task.
- 82 percent consult their phones during shopping in a physical location.

Technology fatigue exists—a February 2016 Harris Poll found that 37 percent of adults say it's simply unrealistic to unplug for more than a few hours at a time. As such, technology can be a continuous distraction, causing us to become unfocused and scattered in different directions. We likely have all been in meetings where we inconspicuously break away from the agenda content to glance down at our phones and subsequently send off a brief reply to an email or a quick text response. However, when we do glance back up and rejoin the meeting, we are participating at less than 100 percent of our previous ability. Based on a University of California, Irvine, study, it takes an average of 23 minutes and 15 seconds to resume doing a task at its original "pre-distraction" capacity.

If we are able to take the time to focus and get away from the technological distractions, we can then ultimately strive toward more meaningful work and a resulting quality work product. Instead of falling back on the virtual relationships maintained via instant messaging and emailing, the avoidance of technology allows us to spend more time face-to-face or holding conversations over the phone with business colleagues, building professional networking relationships.

Similarly, multitasking—especially due to technology—has become a necessity for many and gives us the illusion of productivity. As previously noted, multitaskers are actually less productive and more prone to boredom because they are less emotionally invested in what they are doing. According to MIT neuroscientist Earl Miller, the constant change of focus actually makes our brains less functional.

In order to rise above the busyness to achieve ultimate productivity, it is essential to take an occasional break from technology and multitasking. This can be most easily achieved by just being mindful of our technology habits. Each day, consider devoting several blocks of 20 uninterrupted minutes to accomplishing a specific task without multitasking or being distracted by technology. In a typical 16 waking-hour day, there are 48 of these 20-minute blocks to take advantage of! In doing so, you will reach a more productive state and also prime your now focused mindset for creativity and innovation.

MYTH #3: THE BUSYNESS EXCUSE

"Never be so busy as not to think of others." —Mother Teresa, missionary

Despite what I have written, there are times when we are truly busy and all of our work and personal obligations collide to create the perfect storm of busyness. We all are guilty of overusing the "I'm too busy" line. To shield against professional and personal reputational damage, we may want to reflect on the validity of this go-to excuse and consider our audience before saying, "I'm too busy."

- Co-worker. Assuming you are doing well at work, co-workers will naturally come to you for assistance. In these situations, rather than say, "I'm too busy," respond with a time frame and a solution. For example, "I have the executive committee presentation due on Tuesday afternoon, so let's plan to meet about your new request on Wednesday morning."
- Manager. If your manager is putting demands on your time, rather than the response of "I'm too busy," use the opportunity to discuss your workload, priorities and future projects on the horizon. In some cases, your manager may be approaching you for additional work based on your skill set and strengths in being able to get the job done. (See the "Stronger Strengths" sidebar.)
- Client. If a client is making demands on your time, you need to consider an appropriate way to respond—the "I'm too busy" excuse is going to damage the business relationship. However, you do need to set the tone to manage the client's expectations. For example, "I am currently working on our existing engagement related to the system conversion, but I can refer your new request to another colleague that has some capacity until I free up." That enables the client to adjust your priorities if necessary, or utilize another resource to get the work done.
- Family and friends. When it comes to our personal lives, it can be even easier to overuse the "busyness" excuse. In order to maintain friendships, consider a more thoughtful response. For example, "My schedule is limited right now, but how about we each skip the gym one day this week and meet up for tennis?" If we perpetually avoid those close to us, family and friends may end up not including us on future invitations, as they will revert to the "we knew you were busy and didn't want to bother you" justification.

These example responses demonstrate that the deliverer is thinking of others and wants to uphold a mutual rapport. Oftentimes, those who are on the receiving end of an "I'm too busy" line may realize where they actually fall on the priority list, which is off-putting. When the deliverer articulates a time frame and a resolution instead of responding with the busyness excuse, damage to the relationship is avoided, as the recipient feels considered and valuable to the partnership.

CONCLUSION

By taking time for self-observations and reflection, consider how your professional and personal lives exemplify any of the three myths—that busyness equates to productivity, the illusion of productivity brought on by technology and multitasking, and the overuse of the busyness excuse. To the extent that you have fallen into the "busy trap," take necessary action to extract yourself from it.

- Weigh the busyness versus productivity of your daily activities, and employ prioritization and simplification techniques to manage your time.
- Contemplate any illusions associated with your productivity. Are interruptions from technology and your level of multitasking actually detrimental and stifling your ability to focus and fully participate?
- Reflect on your professional and personal relationships and the busyness excuse.

With any luck, I will follow in my grandmother's footsteps and one day reach centenarian status. While that seems incomprehensible at this stage in my life, it could very well become a reality many decades from now. At that time, I hope to look back upon the milestones and events that transpired over the years, rather than a life consumed by busyness. As Ferris Bueller remarked in the memorable 1986 film *Ferris Bueller's Day Off*: "Life moves pretty fast. If you don't stop and look around once in a while, you could miss it."

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Google Micro-Moments Report bit.ly/GoogleMicro-Moment Harris Poll on Unplugging bit.ly/HarrisUnplugged

MULTITASKERS
ARE ACTUALLY LESS
PRODUCTIVE AND MORE
PRONE TO BOREDOM
DUE TO BEING LESS
EMOTIONALLY INVESTED
IN WHAT THEY
ARE DOING.

action

DO NOTHING!

Do Nothing!, ¹ a book that promotes a synonymous leadership approach, was written by J. Keith Murnighan, a professor at Northwestern University's Kellogg School of Management. The book focuses on typical leaders—those who are hardworking, conscientious and have the natural reaction to want to step up to do more. The author's advice to his audience: Stop working and start leading!

The book opens with a dream that Murnighan emboldens the reader to make a reality: You have just returned to the office after a three-week vacation during which you did not take your cell phone and did not check emails. Miraculously, the office not only survived without you, but also did not miss a beat in your absence.

The role of a leader is to facilitate, orchestrate and coordinate. Actuaries are often known as detail-oriented and typically are reluctant to relinquish control. The combination of these signature characteristics puts the actuarial profession at a disadvantage at succeeding in leadership roles. Actuaries must overcome these emblematic characteristics to learn to trust and delegate in order to succeed as leaders.

Murnighan encourages individuals to trust themselves and their teams. Many professionals in the business world assess financial risks each day, weighing the positives and the negatives. But, "... it's far less natural for them to think that their interactions with people have similar upsides and downsides." Day-to-day encounters affect the perception of trust—either positively or negatively. Achieving greatness as a leader ultimately requires a genuineness that develops out of trust.

Murnighan suggests: "So go on vacation. Leave your work phone at home. (Your team) might surprise you, and they might even surprise themselves."

Reference

¹Murnighan, J. Keith. *Do Nothing! How to Stop Overmanaging and Become a Great Leader.* New York: Portfolio, 2012.

findings

STRONGER STRENGTHS

Leaders today need to foster their own strengths, as well as the strengths of their teams. Contrary to popular belief, strengths are not necessarily what a person excels at! While strengths may be synonymous with being exceptional at a particular task, individuals must also feel passionate and, ultimately, empowered by their strengths.

Within Marcus Buckingham's book, *Go Put Your Strengths to Work*, four SIGNs lead to recognizing strengths:

Success = effectiveness in the activity
Instinct = an innate draw to the activity
Growth = learning and developing through
concentration on an enjoyable activity
Needs = a sense of personal fulfillment,
despite the activity being draining

The most potential for growth exists in areas where there are foundational core strengths. Emphasizing what is already going well and building upon it typically will result in greater success—rather than dwelling on an activity for which there is no motivation.

For example, a project manager typically has fundamental strengths, such as solid organizational and communication skills. Developing these skills by managing projects across different lines of business and functional areas will continue to enhance the project manager's core skill set. In addition, to truly possess this strength and blend the possession of skills with empowerment, the project manager must feel a sense of personal satisfaction in transforming an idea into a reality.

Building upon our strengths is an ongoing process—as our strengths require subtle refinements to meet new situations. Business leaders need to encourage and foster the improvement of existing strengths—not only for themselves, but for their teams—to achieve continued success.

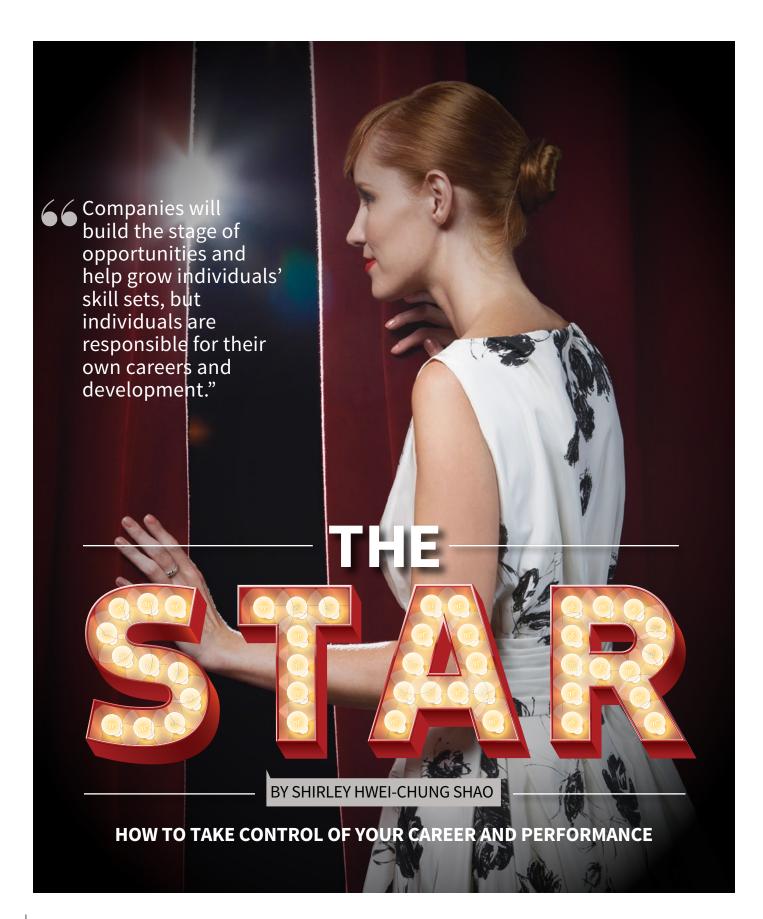
Reference

¹Buckingham, Marcus. Go Put Your Strengths to Work. New York: Free Press, 2007.

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recently attended a team building event at a zoo-themed café in the heart of Shanghai with a group of 20 new employees from the accounting department. My employer, AIA China, hosts these types of events from time to time, and I've always found it tremendously rewarding to attend. For my own team, I personally have hosted Formula One, Where's Waldo? and beach-themed parties. I consider these events a success when team members have fun, let loose and get to know one another better. This is the key to building a successful team with tightknit individuals who trust and rely on one another to win as a team.

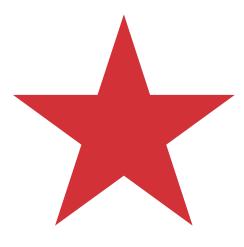
One question that came up during this recent team building event was, "What do employees consider a good company or a good boss?" There were many interesting answers, but only one that everyone unanimously agreed on: "One that will develop and grow me."

INSURANCE ENVIRONMENT IN CHINA

Allow me to backtrack a bit to provide some background on China's environment. Insurance is a sunrise industry with a top-line of more than 25 percent compound annual growth rate (CAGR) growth in the last decade. Its premium ranking was No. 9 in 2006 but moved up quickly to No. 3 by 2015, behind Japan and the United States. Some projections show that China may overtake the United States as No. 1 in the coming decade. There are 76 life and 80 non-life insurers (a third of which are foreign insurers), with 200 more companies waiting in the wings for licenses. The total assets reached US\$2 trillion in 2015 (27 times more than in 2001). The industry only started about 25 years ago. As a young industry in such a fast-growing market, the management focus has been more on sales and market shares, and less on

efficiency and other financial management and controls.

As a young industry, our workforce is also young, with an average age just above 30. However, the average distribution in terms of age is representative of a well curve (inverse bell curve), with an exponentially greater number of employees at the beginning and later ends of the spectrum. Historically, we obtained top talent who would stay for a lifetime straight out of universities. However, we now find increasing competition for retaining top talent, as new graduates are interested in fast-paced and high-growth industries, such



as internet, big data, entrepreneurship, technology and so forth. These industries have boomed in China, hosting many positions where a background in actuarial science can be applied.

We've also noticed a shift in talent retention, where individuals no longer stay for the entirety of their careers due to increasingly abundant opportunities. The combination of this trend, along with the new generation's need for more meaningful work and opportunities to move faster to the top, has increased the turnover—particularly for staff with four to eight years of experience. If we look at their skill sets, these employees are excellent in execution. It is incredible for me to

see a new IFRS, VAT and even a new Solvency II implemented within a few months with really good quality. While the execution was excellent, more coaching on how to approach the implementation strategies was needed.

THE BEST OF ME IS CALLED: SETTING THE STAGE FOR CAREER DEVELOPMENT

To engage our workforce, we have a formula (of course we do—we're actuaries!) for how to frame leadership and career development: *The Best of Me is Called x The Best of Me is Able to Respond.* The key message is that companies will build the stage of opportunities and help grow individuals' skill sets, but individuals are responsible and empowered for their own careers and development.

The best calling stems from within and comes from our own aspirations and ambitions. We must dare to dream while remaining open-minded and having a willingness to change. Our own aspirations and ambitions also drive the desire to respond as best we can.

However, the role of an employer or manager is crucial in setting up the employee for success. The employer needs to build the stage with the right roles and technology setup before calling upon the individuals to perform. The employers, leaders and employees must ensure their peers and subordinates are empowered to be successful—so they can respond with the best of them. They also should provide development opportunities to upgrade skill sets so employees are prepared to respond when called upon.

But why limit this to individuals? I challenged the finance team to widen the scope to cover not just our head office in Shanghai, but to extend it to all five of our branches in China. As a result, we undertook a multiyear

project to establish a finance transformation framework. The first phase of this project was successfully completed last year, incorporating this formula of empowerment at its core, which I believe drove its success.

THE FINANCE TRANSFORMATION FRAMEWORK

The finance transformation framework is a comprehensive framework spanning multiple years. When it was first proposed a couple of years ago, my finance teams were definitely not on board. My company had been doing well, and it was difficult to see a need for transformational changes, not to mention the thought leadership and significant implementation efforts this initiative would require. In other words, our teams were content with the status quo and felt no need to "call up the best of me."

The transformation sits upon three pillars, as shown in **FIGURE 1**:

- Deliver shareholder values through transforming our organization, people, systems and processes.
- Balance internal customers' satisfaction with cost/efficiency and appropriate governance.
- Build an innovative culture where we shape the future, rather than let it happen; challenge accepted practice; and integrate with other functions within the company.

Deliver Shareholder Values Through Transformation

The finance teams realized that a lot of time and overtime were spent on transactional and reporting work, and too little time was spent on value-added activities to support business strategies. This became a downward spiral, as more and more manual work was piling up due to the company's fast growth and ever-increasing

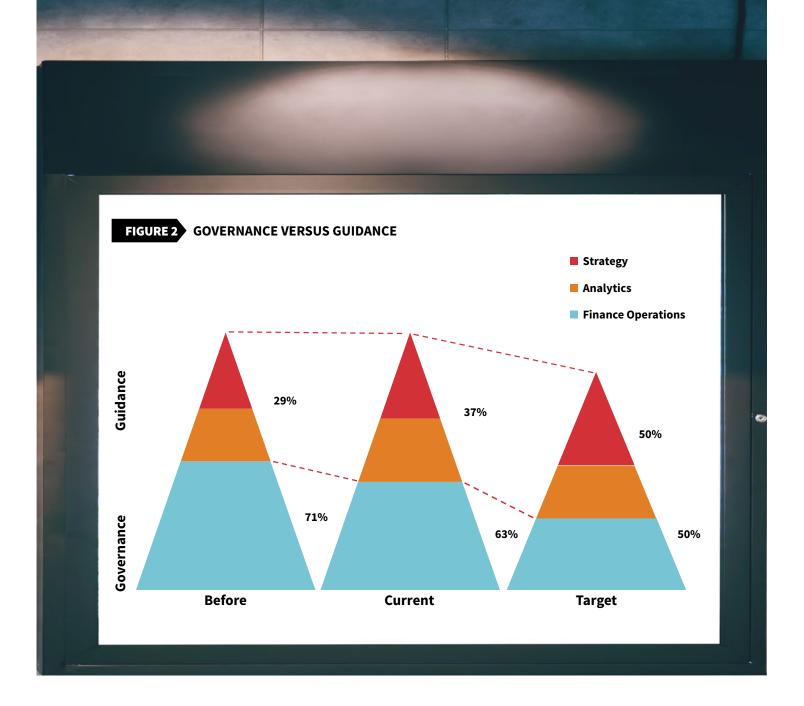
FIGURE 1 FINANCE TRANSFORMATION FRAMEWORK **Efficiency** Shaping / Integrating / Challenging / Innovation **Customers' Satisfaction** Governance

regulatory requirements. This meant we had less and less time to add any long-term value.

The question then became, "Is this what we want?" Do we want to continue to be buried in busy work and have no say in formulating strategy? After some nudging, the teams decided to "be called upon." It may seem counterintuitive, but the best companies and managers often lead by calling upon the employees to change, or even to leap beyond their own imaginations!

Balance Internal Customers' Satisfaction With Cost/Efficiency

The next question asked was, "What is our guiding principle in transforming our finance organization, people, processes and systems?" Many finance functions (and, actually, most backroom functions) consider internal customer satisfaction as the primary measure of value delivered. However, business partner satisfaction is an insufficient measure of value. We must actively manage customer expectations and encourage them to make trade-offs



between their wants and needs. Finance teams add value by focusing resources on the greatest opportunities and eliminating low-value services.

Based on these principles, we redesigned the finance organization into two large categories of activities:

1 Governance: This consisted of operational activities, such as accounts payable/receivable, expense reimbursement, statutory/ GAAP reporting, management reporting, budgeting and so on.

2 | Guidance: These teams were responsible for strategic and analytical activities, such as profit and loss analysis, business development, pricing strategy, capital management, strategic planning, forecasting, strategic initiatives approval and monitoring, special projects and so on.

This was a large task, as more than 80 percent of the finance teams were affected. The goal was to refocus our activities from the previously

heavy-weighted governance model to a more guidance-oriented one. FIGURE 2 shows where we were a year ago with 71 percent of the team in governance activities, which now has been reduced to 63 percent. Our ultimate goal is to have a 50/50 balance between governance and guidance activities, and to support our business growth with a more effective and smaller team represented by the overall smaller triangle. This will move the skill sets up and make the operational work more

FEATURE PEOPLE DEVELOPMENT

meaningful via automation and standardization.

Build an Innovative Culture

Sustainable growth is an innovation. This can be accomplished through promoting fast growth and/or optimizing resources, as shown in **FIGURE 3**. Innovation and finance teams' activities seem to be an oxymoron. (When was the last time someone put the two words together?) We tend to think of innovative activities as new, disruptive business models, technological breakthroughs and so on. However, I believe the finance function can have a very unique role in promoting a company's sustainable growth.

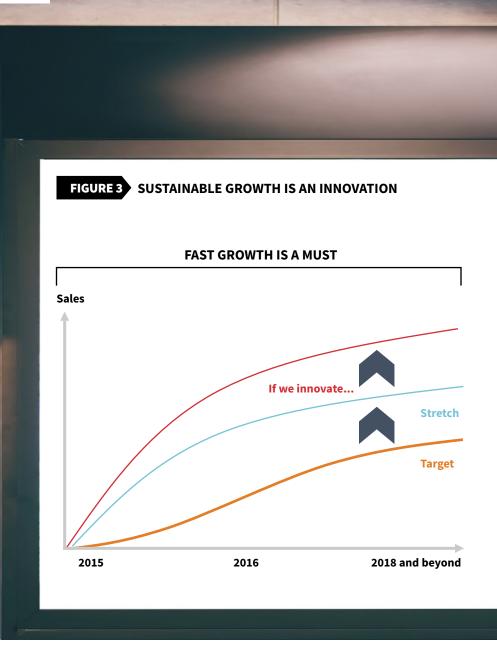
Initially, the finance teams were more focused on system automation and process simplifications in order to reduce current workloads. They felt comfortable calculating results and less so in articulating the underlying drivers, and even less so in shaping results and challenging business strategies upfront. However, once the teams accepted and adopted our Group CFO's vision of the finance mindset of "shaping, challenging, integrating and innovating," results skyrocketed.

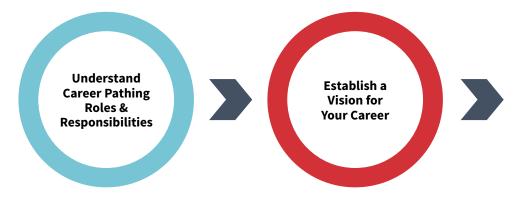
THE BEST OF ME IS ABLE TO RESPOND

A new stage was set up for the finance teams, which are now fully equipped with new roles and responsibilities, new technology with much more efficient processes, and new systems. But how do we cast the roles? Can one perform at one's best when called upon? If not, how can one become prepared?

Our own aspirations and ambitions drive our desires to respond. Employers and leaders can help provide support by offering career counseling in order to cast the appropriate roles.

As a key step in the transformation, we performed detailed job evaluations







to support the future state. In other words, some job descriptions are not necessarily what we are doing now, but what we intend to do based on the new model. We then coached individual employees to see what they would aspire to do. Some employees prefer operational and transactional aspects where they can interact with internal customers directly. Other employees want to get involved with more strategic projects. These are not set in stone, as we do have rotational programs to support both horizontal and vertical growth. The employees liked to have choices and saw their aspirations were heard and met in this process.

In addition, we created a series of development programs and tools customized for the finance teams.

■ Career Path Tool: This sophisticated tool maps out the potential career paths in finance, including actuarial ones. Jobs are divided vertically into families. For example, we have pricing, financial and actuarial systems in the actuarial job. For each grade level, the requirements for that level are laid out, as well as the requirements for advancement to the next level,



FOUR DEVELOPMENT TOOLS CUSTOMIZED FOR FINANCE TEAMS



either within the same job family or to another job family within finance or actuarial. This is extremely useful to employees in understanding the career paths available. It is also useful for managers when having career discussions during the performance appraisal process.

- Career Mobility Programs: As China has a young and fast-growing insurance market, there are a lot of opportunities vertically, horizontally and diagonally. In my company, both the chief sales distribution and chief marketing executives came from actuarial backgrounds. We found most staff are not interested in moving outside of China (to other countries). Therefore, the focus is more on moving between different departments within AIA China.
- Programs: We have a series of in-house training programs available to our employees. These range from online courses to self-study to instructor-led classroom seminars. Some are conducted off-site. For example, the monthly CFO development program this year covered the competition, market, internet finance, service leadership, customers' journeys and more.

■ Mindset Project: The most longterm and challenging part is to change the culture and mindset. Project H2O takes its inspiration from a hero of the Hong Kong cinema, martial arts master Bruce Lee, who famously challenged us to "be like water." Water can shape itself to any form. Project H2O's aim is to bring about further cultural change within the organization by being collaborative, challenging the status quo, encouraging employee empowerment and delivering sustainable, quality results.

As this was a large-scale transformation, we monitored the employees' feedback and the internal customers' satisfaction very closely. On the internal customers' satisfaction, we conducted a survey when the transformation was put in place last year-the satisfaction score was just above 60. The internal customers were not used to receiving standardized services remotely from a centralized center. However, this score has significantly improved to 85 with our recent survey. This shows the internal customers now realize the benefits from the transformation, such as significantly reduced turnaround time and higher quality services.

As 80 percent of finance employees were affected, we saw a dip in the Gallup employee survey when this was implemented last year. We just conducted another survey. The results are not out yet, but I expect a much higher score based on the feedback I have heard over the last six months. In general, employees feel better about their futures and understand their career paths.

While these programs can foster development and capability building, the main component of support must stem from the desire within. Individuals must actively seek out opportunities to advance themselves. These opportunities are not limited to work, but also can be achieved through volunteering, community activities and charities.

Now, the curtain is being drawn and you are called to perform. You are in control of your own career and performance. You are the star—break a leg! ■

Shirley Hwei-Chung Shao, FSA, CERA, MAAA, is the former CFO, AIA China, and recently served as chairperson of the SOA China Committee.

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GUIDING LEADERSHIP PRINCIPLES

BY KENT H. CANNON

here are as many different leadership styles as there are leaders. This article will make no attempt to provide a comprehensive overview of leadership. Instead, I will share some of the leadership principles that have guided me throughout my career, which includes 15 years as the CEO of a mid-size regional life insurance company. My thoughts about leadership are deeply rooted in my experiences preceding, during and subsequent to my time as CEO.

Not all actuaries will be CEOs, but many will have CEOtype leadership responsibilities as they lead groups and teams within their organizations. Throughout my career, I have been passionate about and have found great satisfaction in building people and organizations, and helping them to succeed.

ROLE OF THE CEO

What does a CEO or a leader do? Not long after I became CEO, we held an executive leadership team retreat. One of our senior board members kicked off the event. He shared four important CEO responsibilities that have guided me for much of my career:

- Set the strategy. As the leader, you have the duty to clearly set the strategy, including a compelling vision for the future. I quickly learned that I did not and was not expected to have all the answers. My role was to have a disciplined process to get the right people in the room, identify the critical issues to be resolved, set a vision for the future and create a strategy to move from the current to future state.
- ② | Staff the strategy. An organization is only as good as its people. Once the strategy is set, you need to assemble the team with the commitment, passion and skills to see the strategy is implemented successfully.
- ③ | Execute the strategy. With the strategy set and the team engaged, clear implementation plans need to be designed and meticulously implemented. There must be clear and frequent accountability. This is both tedious and critical. A less-than-perfect strategy brilliantly implemented will succeed most of the time. A brilliant strategy poorly implemented will fail most of the time.
- @ | Report results. Finally, the leader has the duty to report the company's results to the board of directors



and the shareholders. The leader is responsible and accountable to deliver on the agreed-upon objectives.

Even though this is described as a four-step process, there are always iterations within the steps and between the steps as a leader works to build a successful organization.

THE CAUSE

Great leaders instill a cause or purpose in the organization that is about much more than making money. A noble non-monetary cause inspires and motivates all of the company's stakeholders—employees, producers, policyholders and shareholders. Sure, they understand that the company's economic engine needs to be viable, deliver value to the customer and provide a return to the shareholder, yet employees and producers must be passionate about a cause that goes well beyond the economic engine.

When I was CEO at the life insurance company, we were passionate about really helping people financially realize their hopes and dreams, and being there when they needed us most. We wanted to be the financial engine that allowed

their dreams to be met. We wanted to support them in their hardest moments. We wanted to bring dignity and financial self-reliance just when it otherwise might be taken away.

That is what got us excited about coming to work every day.

A leader has the responsibility to clearly communicate the organization's cause or mission, the vision for the future, and the organization's core values or principles. A leader fully engages the organization in these guiding principles.

Within the first three months of new employees starting work at our company, I would meet in a group session with them to personally teach them about our corporate mission, vision, values and strategy. I wanted them to clearly understand our guiding principles. I then would charge these new employees with the responsibility to see that we stayed the course and remained true to those guiding principles. They were to report and help correct any deviation from the course.

THE PEOPLE AND THE CULTURE

After clearly communicating the corporate cause, a leader creates a culture that fully engages everyone's thoughts, ideas and energy for the good of the cause.

FEATURE LEADERSHIP PRINCIPLES

We aimed to create an environment where people could openly and freely express their opinions and ideas, with a high likelihood that any excellent ideas aligned with the cause would rise to the top and be implemented. About once a month, I tried to have lunch with a cross-section of company employees. My goal was to meet in such a setting with every employee once a year. One of my favorite questions was, "What is the first change you would make if you were CEO?" The employees had insightful ideas, and a lot of great initiatives were generated in those lunches. We worked hard to see that the best ideas were implemented rapidly, allowing the employees to realize their ideas and engagement made a difference. As we implemented employee ideas aligned with the cause—and empowered them to implement additional ideas—we energized the company's transformation at all levels.

Great leaders grow both great organizations and great people. Not only did we want the company to grow, it was critical that the employees also grow. It was crucial that our team members had opportunities to learn new skills, learn how to better solve problems and advance in the company. By growing the company, we created more employee opportunities.

Great leaders develop cultures that are open and honest. We used a 360-degree performance appraisal to help in this process. Both the board and all of my direct reports evaluated my performance. In order to remain objective, I would always complete my evaluations of my direct reports prior to reviewing their evaluations of me. Some of the best feedback I received was from my direct reports. My goal was to create an environment where I was approachable and people could be brutally honest with me. I believed that such an open and honest culture allowed the company to rise to its full potential.

Part of this open and honest culture included creating an environment where people could have different opinions and comfortably challenge any aspect of the organization in the spirit of making the company better. I knew I did not have all the answers and valued the opinions and insights of others, including those who disagreed with me. I welcomed vigorous debate—as long as it was focused on making the company better and not some personal egotistical need to win a point or achieve a personal agenda. Properly done, team members could have these debates and retain or, at times, increase the respect they had for each other, all while building and strengthening the company.

Not only did we have the traditional mission, vision and values statements, but we also created a people statement Great leaders grow both great organizations and great people. Not only did we want the company to grow, it was critical that the employees also grow."

that specifically defined the type of person we wanted to have working for the company and what we expected of him or her. The people statement was a powerful recruiting tool. It increased the attraction for those who fit well with our company and allowed those who didn't fit to remove themselves from consideration.

THE ALIGNMENT AND ACCOUNTABILITY

It is critical that an organization be aligned with its cause and committed to delivering sustainable results. All parts of the organization need to be aligned and held accountable. In our case, our primary cause was much more than making money, yet we needed to provide the shareholders a fair return for the risks associated with ownership.

A leader is not only focused on results, but also on how results are achieved. In our values statement, we said, "How we achieve results is as important as the results themselves." We worked to make certain we always acted with the highest level of integrity. In fact, we often said that how we achieved results is more important than the results—and the results are really important.

We used companywide performance scorecards to align the company's cause and shareholder expectations. For every employee in the company, we worked to identify the



▶ Policyholders and distributors who received exceptional products and services, and had the peace of mind that their contractual obligations would be met.

Rarely did we achieve perfection in all the areas discussed in this article. In reality, most of the time you are succeeding in some areas and working hard to make corrections in others. Great leaders have a relentless drive for change and improvement, while religiously preserving the organization's core values.

Built to Last and Good to Great are two leadership books that have been immensely helpful to me over my career. These books study organizations that have achieved extraordinary results over an extended period of time. They identify common qualities and attributes across these many successful companies that have allowed them to prosper. Many of their findings were consistent with my real-life experiences. I have applied many of the business principles identified in these books throughout my career.

There is no perfect leadership handbook. Reading and learning from others' successes and failures can accelerate the leadership learning process, yet there is nothing that teaches and accelerates the process like personal experience.

two or three things he or she did that were most important in helping the company achieve its strategic vision for the future. We then established a set of performance metrics around those activities. Each month, employees could see the company's results and how they personally contributed to the success of the company. Each employee knew what was expected of him or her. One of our executives often said, "Disappointment is the sum of unmet expectations." By making certain expectations were clearly understood, we reduced the risk of disappointment.

THE CELEBRATION

It is important to celebrate successes. Great leaders make it enjoyable and rewarding as the people and organization grow. Take time to celebrate major milestones—such celebrations will energize the team and reinvigorate them in their journey to the next milestone.

In those moments when we had the company firing on all cylinders, we had:

■ Employees who were passionate about the company, loved their jobs and understood what was expected of them. They were growing, progressing and helping the company meet its objectives.

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TOOLS LEADERS USE TO GROW THEIR CAREERS AND TEAMS

I love the word "tool," because in many ways it implies a practicality. But we've gone overboard a little—looking for the perfect tool, the magic wand, the silver bullet—especially in the world of leader and manager development.

When I look at successful leaders who are really making a difference in developing their teams, as well as their own reputations and careers, they're choosing more conversations and fewer presentations. They're getting back to talking face-to-face.

Trust is at the heart of being a leader, and face-to-face is still the gold standard to build trust. We need to have trust in order to grow our team and our business.

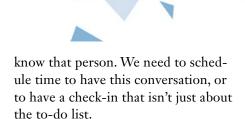
But trust doesn't happen because we have some magic survey or we install some fancy recognition program in our organization. We have to focus on building that trust by being honest and transparent, and doing it over time.

LEADING VIRTUAL TEAMS

The word "virtual" always cracks me up because these people aren't virtual; they're real! They just happen to not be in the same location you are.

Better leadership starts with taking the time to learn and ask bigger questions about that person. It's like what you do when you're in closer proximity with somebody—you learn and find out things naturally—because collision creates conversation.

When we're remote, we as leaders need to make an extra effort to get to



Some leaders resist this because we've been taught to stay out of people's personal business, but work is personal. When we are working at longer distances and without all the benefits of seeing people face-to-face, we need to make the effort to learn that personal information in other ways.

SHOWING APPRECIATION FOR EMPLOYEES

Offering fair compensation, and being clear about how they are compensated and rewarded, is essential. We're seeing a lot of research right now about unconscious bias in pay. That doesn't just apply to women; it may also apply to people who work remotely or who work in another country. Leaders have to think about the rewards of the business.

Also, one thing that keeps coming up is taking time for appreciation. That means recognizing something specific, perhaps in public at the beginning of a meeting or before you're having a one-on-one. You can say, "I noticed how you went out of your way to help the new guy on the team, and I just want to thank you for that." Calling out those things can

really help show people that they're noticed, that they matter and that they're appreciated. That goes a long way toward engaging, retaining, motivating and creating a great culture.

MANAGING A RAPIDLY CHANGING ENVIRONMENT

There is so much temptation to be everywhere, to do everything, to fix every problem. What's critical, though, is continuing to hone the skill of knowing and aligning your activities around what's most important.

That means mastering the art of saying no and being able to say, "I understand that's a problem, and no, we're not going to focus on it right now because we're focused on this bigger thing."

We can't just keep adding things to our to-do lists. I was in a meeting as an executive coach the other day, and they were talking about their 10 top priorities. You can't have 10 top priorities and expect to succeed.

That means being able to resist the siren call of saying, "Oh, that won't take long," or "That's just a couple of days' work." It's easy to fill our days doing busy work, but a good leader understands what is most important and helps people stay focused so they can do their work.

RECOMMENDED BOOKS AND RESOURCES

One of the best things a leader can do is continue to read work from outside the world of business, and even the world of leadership. One of my favorite books is *The War of Art* by Steven Pressfield, a book originally written for writers.

He talks about what gets in the way of doing our best work, which he calls "the resistance." This concept is helpful for anyone who wants to be a leader. When you are moving toward something bigger, when you are growing, when you are doing something that is good for you, you're going to get this pushback; you're going to get this resistance. It happens to all of us. The book does a nice job of giving words to those blocks that happen to every person who wants to continue to learn and grow.

ENCOURAGING CREATIVE THINKING

Creativity comes from taking things we already know and putting them together in different ways. One of the things that can really help an organization and a team—and even an individual—get more creative is to take them out of their existing environment.

Go somewhere else that maybe you know but haven't looked at in the light of your current problem or situation. For example, I've taken teams to a museum or a zoo and said: "Here's the problem we've been trying to solve in the office. Now, you've got 90 minutes to come back with new ideas to solve our problem, based on what you're seeing here." And every time we take a field trip and do that exercise, something fresh comes out of it. You find inspiration in real life.



Darcy Eikenberg, PCC, is a frequent presenter at major SOA events such as the Life & Annuity Symposium and the Valuation Actuary Symposium. She is also a regular contributor to *The Stepping Stone*, the newsletter of the Leadership & Development Section. Visit *RedCapeRevolution.com* for more information.

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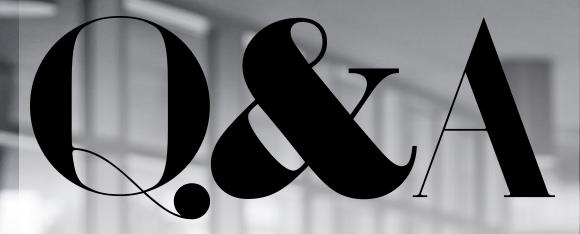
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"A ZERO IS NOT ZERO"

Q&A WITH ACTUARY AND PROFESSOR WU-CHYUAN GAU

Tell us about your background. How did you make the decision to become an actuary?

A: I was studying applied mathematics at Tatung University in Taipei, Taiwan. I fell in love with probability and statistics during my junior year. After finishing college, I came to the United States to pursue a graduate degree in actuarial science at Boston University. I enjoyed learning how to quantify the unknown financial risk of a contingent event. However, I wanted to contribute on the actuarial research front. Therefore, I went on to pursue a Ph.D. in mathematics and statistics, with an emphasis on credibility theory.

I started my actuarial academic career as an assistant professor at the University of Central Florida (UCF) in 2002 and received tenure as an associate professor in 2008. Unfortunately, UCF decided to terminate a very successful actuarial science program in 2009. That's when I officially started my actuarial career in the insurance industry. I switched to the health care insurance industry and led a risk identification research project in preparation for health care reform in the United States. I am a passionate advocate for the use of predictive analytics in this post-reform market. Meanwhile, I also serve as an adjunct professor at the University of North Florida and am helping the department of Mathematics and Statistics to establish an actuarial science program.

Wu-Chyuan Gau, Ph.D., ASA, MAAA, is the actuarial predictive modeling lead at Florida Blue in Jacksonville, Florida.

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Q: What skills positioned you for work in predictive analytics?

A: My trainings in mathematics, actuarial science, statistics, data mining, and academic teaching and researching all come together and help me grow in the predictive analytics field. My mind is always filled with new ideas. More important, my passions to learn the unknowns and to compete in analytics really motivate me in pursuing this nontraditional role in the health care insurance industry.

Q: How did your professional experience lead you to a career in predictive analytics?

A: The actuarial training gave me the ticket to get on the bus, and my professional experience helped me do well in this field. My first industry job was with an auto and home insurance company, where pricing by risk is allowed. The use of predictive modeling is the norm in the non-life insurance industry. Because of my strong modeling background, it's a natural fit for me. Predictive modeling is still relatively new to health actuaries. I hope it will become a regular part of actuarial functions in the near future.

Q: How do you use predictive analytics in your job?

A: I have been involved in providing support for different areas. These efforts include:

- Designing and selling the right product to the right people, at the right time, for the right price.
- Selecting the right members for the right interventions.
- Quantifying the risk and identifying opportunities under the influence of risk adjustment methodology.
- Coordinating cross-functional strategies and identifying optimized solutions at the enterprise level.

Q: How did you learn the tools and techniques of modeling? What sparked your interest in this area?

A: I learned the tools and techniques of modeling at different stages. I learned how to go from zero to one in my Ph.D. studies. The actuarial control cycle guides me through my work in analytics. My academic teaching and researching experience makes me a better thinker and researcher.

I joined the health care insurance industry in 2010 to be a part of U.S. health care reform. I had an opportunity to develop high-performance risk models using advanced predictive modeling and data mining techniques to quantify the risk and to identify new opportunities in the post-reform marketplace. This is the moment that makes me a matured predictive modeler. It has demonstrated that advanced analytics can be used effectively to predict cost and classify new prospects without having access to historical claims and utilization data. I consider myself a very lucky person because I am sitting in the front seat and experiencing this changing tide.

Q: Where do you see opportunities for actuaries in the predictive analytics arena?

A: Facing the challenges of the post-reform era, many health insurance carriers began using big data analytics on all aspects of their decision-making processes. The goal is to be able to compete on analytics in this quickly changing environment. However, becoming an analytics competitor is not easy. It requires the belief from the leadership and a group of dedicated analytical professionals to solve emergent business problems that existing strategies cannot address in an evolving market. These problems include marketing for acquisition and retention, coding accuracy, revenue growth, health care disparity, payment integrity, quality of care, health care cost reduction and, ultimately, personalized care management.

In addition, predictive analytics comes with costs. There is the direct cost of devoting resources to develop and implement analytical models properly. In addition, there are hidden indirect costs of relying on analytical models of making decisions, such as the possible adverse consequences (including financial loss) of decisions based on models that are incorrect and/or misused. These consequences should be addressed by developing a comprehensive model risk management plan. The lack of coordination for cross-functional strategies is going to reduce the competitiveness of a company. Therefore, it is extremely important to establish a modeling center within the organization to provide optimized solutions and to monitor and quantify the potential risk at the enterprise level at the same time. I believe actuaries are well-equipped for these challenges.

Q: What are some challenges in working in predictive analytics?

A: The U.S. health care industry has gone through a dramatic change during the past several years. The



business model has moved from a risk selection model to a risk management model. People can shop online for their health care coverage. Everyone is welcome! Annual and lifetime dollar limits, underwriting and the pre-existing conditions exclusion are all in the history book now.

However, there are so many unknowns. Who can bring in more revenue, given that the revenue is now closely connected to "coded" health status? Who will cost more? Who will be more profitable? Most important, how can we help people and communities achieve better health utilizing the most efficient approach? We wish we could have a crystal ball to answer all of these questions, but we don't. The best alternative is the use of predictive analytics to turn messy data into useful information and generate actionable rules.

Predictive analytics is about precision targeting and winning. It's the winning part that makes predictive analytics extremely challenging. And the winning ingredient is the search for interaction and nonlinear terms. There are very few people

willing to shut up, sit down and do it. However, there are a lot of unqualified people providing mediocre analytics that will damage the predictive analytics brand name.

In health care, there is great potential to positively influence patient outcomes. Nevertheless, influencing behavior isn't as easy as convincing someone to click a few buttons. There is a need to address privacy concerns and HIPAA regulations on the use of big data analytics. Actuaries, who abide by the code of professional conduct and follow a set of protocols to guide their decisions, can serve as gatekeepers to protect the general public.

Q: What advice do you have for people who may be interested in positions in predictive analytics?

A: The health care insurance environment will continue to become a more competitive and customer-oriented business. The universal approach will not satisfy all customers,

especially when they have increased freedom of choice in purchasing health coverage. Ultimately, a health insurance company needs to become a health solution company.

My advice to the future generation of actuaries is to learn statistics and data mining as much as possible, have solid hands-on programming skills, follow the actuarial education program and come join the party. We are going to have a lot of fun on this journey.

Q: What skills do actuaries bring to analytics that other professionals may not?

A: Predictive analytics is about foreseeing the future. Pricing and reserving are two classic actuarial functions. Actuaries have proven to be very good at turning historical data into adequate capital obligation and premium rates for the future. Strong attention to detail, creativity and patience are very critical when competing in analytics. In addition, actuaries are good communicators, able to explain what we know to people who don't know as much. Actuaries need to build collaborative relationships with all partners, because a model is useless if no one uses it.

Q: What are some of your best professional memories/experiences as an actuary that may inspire others to explore different actuarial paths?

A: I strongly believe the use of advanced analytics will grow exponentially in this post-reform marketplace.

When it comes to predictive analytics positions in health care, actuaries are losing out to data scientists and statisticians. Having experience in all three areas, I say they all have a similar toolbox, but they apply these tools to different areas to accomplish different goals. Actuaries are experts on predicting how much members will cost in the future based on the data-driven traditional actuarial per member per month (PMPM) metric. Data scientists use these tools to recognize patterns hidden in the data, which typically is massive, dynamic and dirty. And, the principal aim of traditional statistical analysis is making an inference about the parameter using confidence intervals and hypothesis tests. I believe actuaries are capable of all three.

At a time when companies in the health insurance industry offer similar products, many of the previous bases for profitability are no longer available. What's left as a basis for competition is making the smartest business decision possible. This is exactly what an actuary is trained for, isn't it? I love it because it is very challenging.

Q: What are some things our audience may not know about predictive analytics?

A: Descriptive analytics proclaims "a zero is zero"; predictive analytics, on the other hand, dictates that "a zero is not zero." A person's health status changes over time. Additionally, his or her driving behavior could be very different a year from now. Predictive analytics is a methodology that allows us to increase the odds of guessing correctly for a future event so we can prevent it from happening. It is the analysis of all kinds of data using advanced quantitative techniques to gain insight that traditional query and reporting are unlikely to identify. For example, "How do I deliver personalized care to those at risk?" A wrong model is worse than no model. Predictive analytics is not a parttime job. We need more qualified, credentialed actuaries playing a leading role in this area.

Q: If you could turn back the clock, knowing all that you know now, would you choose the actuarial profession again? If yes, why?

A: Yes, I have no doubt in my mind I would choose the actuarial profession again. Looking back, it has been a wonderful journey for me. I came to the United States in 1995. While my parents wanted me to return to Taiwan after my studies—and they are still asking me when I will come home—they have been very supportive all these years. I thank them for believing in me and allowing me to pursue my dream.

Teaching and doing research on actuarial science at UCF was a great experience. It helped me grow as a researcher and led me to where I am today in the predictive analytics field. I thought life was good in academia for a while. The unexpected force pushed me into the industry. It turned out to be a great trip. I thank my wife and kids for supporting me during these years.

The U.S. health care reform gave me this once-in-a-lifetime opportunity to prove predictive analytics is a successful field. It is a great time to be a part of the health care insurance industry. I really enjoy it. ■





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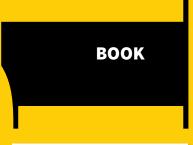
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"data avalanche" is one way to describe the vast amounts of data we have available to do our actuarial work every day. With so much data out there, how do we make it stand out to our clients and employers? The key is for us to refine our data visualization.

I have to admit that I'm a visual learner. I find that images help me understand concepts and can be quite powerful when used in conjunction with technical data. Actuaries were among the first to graph, chart and visually display results. Today, with high-powered computers and growing analytics software, actuaries have an opportunity

to ensure the work is more understandable and easy to communicate. With this in mind, we created our recent Society of Actuaries (SOA) essay collection to provide examples of how helpful the data visualization tools are for actuaries.

As part of the essay collection, John Hegstrom, FSA, MAAA, developed an article on the power of effective communication, where he looks at the intersection of design and data science in telling a story. He notes how "data needs to be analyzed and communicated in an efficient and effective manner." I find his examples of data representation with violin plots, strip charts, density plots and histograms to be quite useful.



The article from Jen Houng Lie, FSA, CERA, covers how actuaries can apply data visualization with predictive underwriting, asset allocation and stochastic modeling through interactive adjustments of charts. The author notes: "Communicating with data visualizations is not just about being more effective by replacing text and numbers. A thoughtfully crafted visualization increases our understanding of the data."

An article from Kailan Shang, FSA, CFA, PRM, SCJP, identifies how social network data can be used with more traditional measures of statistics. The article focuses on the different forms of visualizing social network data, such as through word clouds and geolocation. Making the data understandable in terms of a word cloud can help communicate the importance of particular phrases and concepts that otherwise may go unnoticed.

As actuaries, we spend a lot of time gathering, testing and analyzing data, and we can use data visualization to tell a powerful story.

I encourage you to visit **SOA.org** for updates on our ongoing research projects and new proposals. Additionally, visit SOA Engage at engage.SOA.org. It is our online community where you can comment on the latest ideas and research, share your perspectives and more.

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MORTALITY IMPROVEMENT SCALE MP-2016

The Society of Actuaries (SOA) released its annually updated mortality improvement scale for pension plans, MP-2016. It incorporates three additional years of Social Security Administration data on U.S. population mortality.

bit.ly/SOA-MP-2016

PREDICTIVE ANALYTICS PAPER COLLECTION

The SOA released a new collection of papers providing examples of how actuaries are using predictive modeling in practice, such as with the random forest algorithm and machine learning.

bit.ly/SOA-2016-PA-Essays

MODELING LONG-TERM HEALTH CARE COST TRENDS

The SOA continues to make annual updates to the model originally developed by Thomas E. Getzen of Temple University. The SOA has updated this Getzen Model of long-run medical cost trends and also has developed a document describing practical issues for actuaries using the model.

bit.ly/HC-Cost-Trends

R. Dale Hall, FSA, CERA, MAAA, is managing director of Research at the Society of Actuaries.

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Continue the cycle of continuous improvement and identify new experiences to pursue. Attend a meeting or seminar. Tune in to a podcast. Take an e-course. These are great ways to take charge of professional development and can help you:

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WEBCASTS

2016 Year-End Financial Reporting Considerations

Dec. 15

Tune in to a timely summary of the latest issues for actuaries to consider for this year-end's financial reporting work. Three expert speakers will discuss topics such as cash flow testing, the impact of today's low interest rate environment, using results from the SOA's Modern Deterministic Scenario Study, using simplified methods for PBR and year-end work, as well as GAAP hot topics for this year-end.

bit.ly/SOA-Year-End

GAAP Basic—Traditional Life Webcast

Dec. 16

The first in a series of webcasts on U.S. GAAP reporting, this webcast will cover the basics of GAAP reporting for traditional life insurance products, including term and whole life insurance. The other webcasts (dates to be announced) planned for the series are:

- → GAAP Basics—UL
- **■** GAAP Basics—Annuities
- **■** GAAP—Targeted Improvements
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