



# Chairperson’s Corner

By Susan Mateja

On behalf of the Society of Actuaries (SOA) International Section Council (ISC), I wish all our members a happy new year! We are all looking forward to a wonderful and adventuresome 2020.

The new year has also brought with it a number of changes for the ISC. First, I’d like to personally express my thanks to Arpita Das, our outgoing chairperson, whom I’ve had the pleasure of working with over the past couple of years. Although she will step away from the chairperson’s role, Arpita will continue to be a member of the council, liaison for the International Committee and point person for our digital communication.

Second, I want to welcome the new and returning council members. We have a very diverse council whom I very much look forward to working with in 2020 (Table 1).

Table 1  
The 2020 International Section Council

Council Member	Role	Location
Susan Mateja	Chairperson	Louisville, Kentucky
Manyu Wong	Vice Chairperson	Zurich, Switzerland
Alberto Abalo	Secretary	Madrid, Spain
Maïthé Luneau	Treasurer	Mexico City, Mexico
Arpita Das	Past Chairperson	Dublin, Ireland
Shirley Song	Member	Seattle, Washington
Esteban Paez	Member	New York
Yanjie Feng	Member	Newark, New Jersey
Steven Chen	Member	Singapore

Of course, we have many Friends of the Council and SOA staff partners as well. This has allowed us to work on various projects of interest to our members. For instance, we are currently completing a Health Care Funding Report, which



diagrams how countries throughout the world are financing their health care. This is a collaborative effort with the SOA International Section, the International Actuarial Association Health Section (IAAHS) and the Actuarial Academy’s Health Practice International Council (HPIC). Experts from about 30 countries are contributing to this exciting project. Stay tuned!

The International Section encourages and facilitates the professional development of its members who are interested in international practice.

In addition, we presented a November webcast on how General Data Protection Regulations (GDPR) will impact actuarial work. Our first podcast, which was posted in December, talked about multipopulation mortality models. Our next webcast, titled “Regulating Insurer Use of Genetic Information Across the Globe,” will be held Jan. 22. We will also be collaborating with Dale Hall and the SOA research team to present a webcast on retirement in China.

We will continue to enhance our e-bulletin for members, country-specific web pages, our presence at international actuarial events and networking activities. We work hard and we play hard.

I will leave you with the knowledge that the ISC is committed to fulfilling our mission as is described on our website:

The purpose of the International Section of the Society of Actuaries is to encourage and to facilitate the professional development of its members and affiliates who are involved in international insurance, pensions, or Social Security programs, or who are interested in international areas of practice, through activities such as meetings, seminars, research studies, and the exchange of information.

We are always looking for volunteers and ideas for the section. If there is anything you are passionate about or would like to see, please do not hesitate to reach out to me or our council members. ■



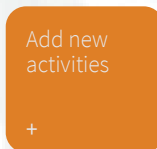
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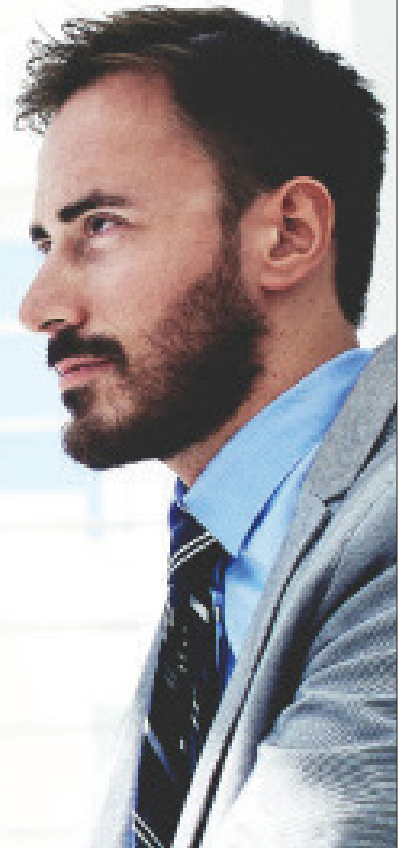
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# The Competency Framework: Design Your Future

By Richard Junker and Curtis Lee Robbins

*Editor's note: This is the first article in a series of three covering the Society of Actuaries (SOA) Competency Framework first printed in The Actuary of the Future, issues 39–41. The subsequent articles will appear in future issues of International News.*

The Society of Actuaries (SOA) Competency Framework is a powerful tool to enable you to design your future. Though it has been the SOA's instrument for prioritizing continuing education and support to members since 2010, many actuaries are still not fully aware what a potent tool it can be to them in planning their personal careers.

The SOA's Competency Framework is a tool to help actuaries make decisions related to their individual professional development and career management plans.

To raise that awareness, and to inspire you to take action, the authors will provide answers in this series of articles to the following questions:

1. What is the Competency Framework?
2. Why did the SOA design the Competency Framework?
3. Where are actuaries today?
4. Where will you be in five years?
5. How do you gear up for designing your future?



6. How do you create a personal development plan?
7. How will the Competency Framework help your future?

## WHAT IS THE COMPETENCY FRAMEWORK?

Simply stated, a *competency* is a demonstrable ability (the synthesis of skills, knowledge and behaviors) that contributes to an essential outcome (product or service) that defines an individual as qualified.

The Competency Framework is a meaningful model of competencies that may be organized by content, role, position or a combination thereof and may be used for a variety of purposes and processes. It is the synthesis of these skills, knowledge, behaviors, attitudes and attributes that contribute to outstanding job performance.

The SOA's Competency Framework is a tool to help actuaries make decisions related to their individual professional development and career management plans. It applies systematic, sound approaches to selecting professional development opportunities, focusing on the skills needed to go beyond technical and specific actuarial analysis.

The Competency Framework was introduced to focus and prioritize continuing education and support to members. The Personal Development Plan (PDP) answers the constant question, "What should I be doing next?"

The eight competencies in the Competency Framework are shown in Table 1.

**Table 1**  
**SOA Competency Framework**

Competency	Legend	Definition
Communication	C	Demonstrating the listening, writing and speaking skills required to effectively address diverse technical and nontechnical audiences in both formal and informal settings
Professional values	P	Adhering to standards of professional conduct and practice, where all business interactions are based on a foundation of integrity, honesty and impartiality
External forces & industry knowledge	EF	Identifying and incorporating the implications of economic, social, regulatory, geopolitical and business changes into the design and delivery of actuarial solutions
Leadership	L	Initiating, innovating, inspiring, creating or otherwise acting to influence others, regardless of level or role, toward a common goal
Relationship management & interpersonal collaboration	RM	Creating mutually beneficial relationships and work processes toward a common goal
Technical skills & analytical problem-solving	TS	Applying the actuarial knowledge, skills and judgment required to provide value-added services
Strategic insight & integration	SI	Anticipating trends and strategically aligning actuarial practices with broader organizational business goals
Results-oriented solutions	RO	Providing effective problem-solving that addresses relevant interests and needs

### WHY DID THE SOA DESIGN THE COMPETENCY FRAMEWORK?

The Competency Framework provides strategic benefits:

- Integrate education and career development
- Focus and prioritize continuing education and support to members
- Provide a foundation for professional development

### WHERE ARE ACTUARIES TODAY?

The Competency Framework was introduced to members in 2010. The Self-Assessment Tool of 100 items was drawn from a sample of statements provided by more than 3,000 actuaries across various areas of practice, answering the question, “What skills do actuaries need?” Statements were collected and distilled into 100 items by area of practice and then generalized for all areas of practice.<sup>1</sup>

According to Steve Eadie, Dale Hall and Judy Powills, who helped develop the SOA Competency Framework, the central premise of the Competency Framework is:

In addition to technical skills and an understanding of the external forces that affect an actuary’s work, nontechnical skills are central to the actuary’s success as a well-rounded business professional and advisor. It is clear that actuaries will benefit from continuous learning and development in various areas of competency to ensure that they are able to respond to a rapidly changing environment. Their employers demand it. Their clients demand it. Ultimately, the public demands it.

The SOA Competency Framework Personal Planning Workbook complements the Self-Assessment Tool. Using the spreadsheet-based planner is an easy way to organize, design and track your professional development. The planning workbook is updated annually to include references to sessions, organized by competency, from the SOA’s flagship meetings—Life and Annuity Symposium, Health Meeting, Valuation Actuary Symposium and SOA Annual Meeting & Exhibit.

The greatest performance gaps continue to be in the areas of communication, relationship management and interpersonal collaboration, strategic insight and integration, leadership, and results-oriented solutions.

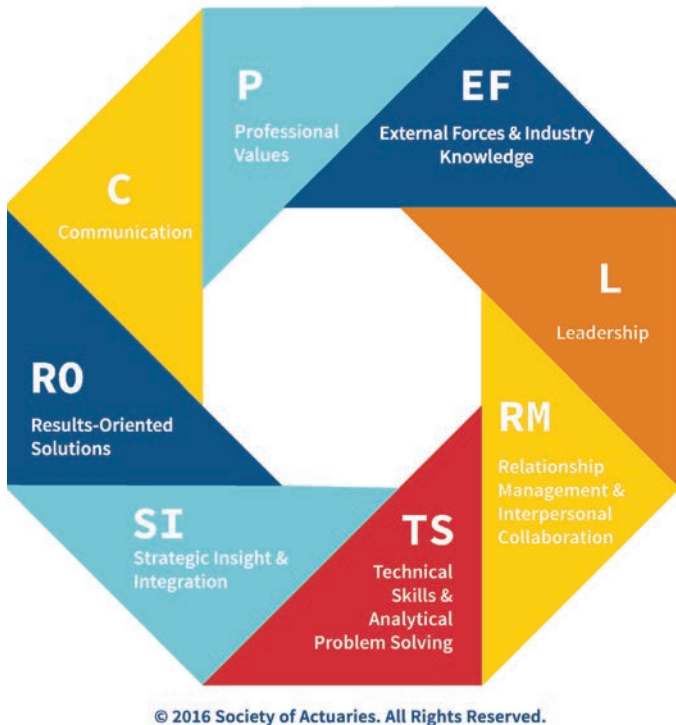
One may contend that today’s actuaries are much better communicators and collaborators than those of a generation ago. Certainly, presenters at actuarial meetings are far more engaging and polished than their predecessors. The many meeting management tools and the technology triumphs of recent years have lifted all boats as well. Every speaker has benefited.

Many new ASAs and FSAs have focused heavily on building technical skills and passing examinations and now need to switch their focus to the soft skills (i.e., communication and the other interpersonal competencies). A consultant friend who specializes in Excel systems and building models observes that many in-the-trenches actuaries with whom he works can build terrific models, yet they lack interpersonal versatility.

The pipeline of new associates and fellows will do well to make the Competency Framework their second religion over the coming decade. (Our recommendation is not to be construed as spiritual guidance.)

The branding for the Competency Framework has changed in parallel with the SOA's recent branding update. The new image, as seen in Figure 1, is an octagon of the eight competencies. As shown at <http://cfat.soa.org>, the full display invites you to take the self-assessment and design your future.

Figure 1  
The Competency Framework



### WHERE WILL YOU BE IN FIVE YEARS?

Think about where you want to be in five years. Do you want to be an individual contributor, a manager, director or vice president of a department, a C-level executive, or retired and living off your travels and Tai Chi practice?

*We must remember that casting a critical eye on our weaknesses and working hard to manage them, while sometimes necessary, will only help us prevent failure. It will not help us reach excellence . . . you will reach excellence only by understanding and cultivating your strengths.*

—Marcus Buckingham, *Now Discover Your Strengths*

Here are five questions that can give purpose and direction in your career planning:

**Who are you?** What is the one thing you know better than anyone else? What one thing do you do best?

**Where are you needed?** Think in terms of where you are needed rather than where you want to be or what kind of money you want to make. It's not what you want but where you are needed—specifically you, with your gifts.

**Who will you serve?** Who specifically will benefit from the service you provide?

**What specifically do they need?** How do those you serve change or transform as a result of what you do for them?

**What is your call to action?** Looking five years into the future, think about how you might finish this statement: “To be valued for my professionalism, technical expertise and business acumen, I will have developed skills that include . . .”<sup>2</sup>

As you assemble your personal development plan entries, concentrate on the following:

- Identify the skills you gravitate toward.
- Focus on fixing your weaknesses.
- Determine what you do well, where you find joy and what you want to focus on.
- Be happy at what you do best.
- Do not ignore critical skills.

In our next installment, we will discuss how to gear up for the design of your future. In the interim, the authors welcome your feedback. Our goal is to have this series address your questions and needs and to help all actuaries of the future design a future they will find meaningful and rewarding. ■



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### ENDNOTES

- 1 For a full discussion of how the Competency Framework was developed, see Steve Eadie, Dale Hall and Judy Powills, “Road to Success,” *The Actuary* 6, no. 3 (June/July 2009), <https://www.soa.org/library/newsletters/the-actuary-magazine/2009/june/act-2009-vol6-iss3-eadie>.
- 2 Joe Jones, founder and program director at Transition Masters in Tampa, Fla. <https://www.linkedin.com/in/joehjones/>.





# Demographic Change in Mexico (Part II)

## Opportunities and Challenges for the Insurance Industry

By Juan Antonio Monroy Kuhn



*Editor's note: This article first appeared in Risk Insights, No. 4, 2019, published by General Reinsurance and is reprinted here with permission. Copyright © General Reinsurance AG. You can find Part I of this series in issue 78 of International News.*

### CHANGING TARGET POPULATION

The potential market for insurers will undergo major change over the coming decades. As we can see in Table 5, following the projection of our Base scenario, the population aged 50 or over will grow by 2060 by 39.3 million people, while the population of young people (from age 25 to 49) will only grow by 7.4 million. The absolute growth of the age ranges is not the only important factor. The proportion of the population aged 50 and over will grow from 19% in 2015 to around 40% by 2060. In other words, almost half the population will be 50 or over.

Table 5  
Distribution of the Population by Age Range (Mexico, 2015–2060)

Age Range	2015	2060
25–49	42.5 M (35%)	49.9 M (32%)
50–69	17.4 M (14%)	38.3 M (24%)
70+	5.2 M (4%)	24.3 M (15%)

Source: Gen Re—Own calculations based on the data “Conciliación Demográfica de México 1950–2015, Consejo Nacional de Población (CONAPO), 2018.” <https://www.gob.mx/conapo/acciones-y-programas/conciliacion-demografica-de-mexico-1950-2015-y-proyecciones-de-la-poblacion-de-mexico-y-de-las-entidades-federativas-2016-2050>.

This anticipated change represents a challenge to the insurance industry for various reasons. Firstly, it will be necessary to develop suitable cover for an elderly population. Various elements of the

design of current products, such as the maximum ages of entry and of cover, will have to be adjusted to cater for the anticipated increase in life expectancy. This will entail different challenges given that available claims experience is limited as the current focus within the target population is rather different.

Secondly, it will be necessary to design and offer attractive products at affordable prices. It is important to take into account the fact that the disposable income in Latin America, which retired people have available for insurance, is limited. The OECD<sup>1</sup> estimates for Mexico that, under the present pension regime, an average contribution of 6.5% would enable a salaried person to achieve a replacement rate of just 26% by the time of retirement. Accordingly, affordable cover for the real needs of retired people will be needed. This process of creating an adequate range of products to offer will have to be accompanied by efforts to educate consumers on the financial risks which longevity entails, and hence on the need to make suitable provision to minimize that risk. Indeed, a study published recently in Austria looking at people aged between age 50 and 79 found that 67.7% of those interviewed fear physical disorders, pain and illness, while 62.9% also had concerns about their mental health and were frightened of suffering from dementia.<sup>2</sup> This percentage rose further (71.2%) among people over 70.

### CHANGES IN THE RISK PROFILE

It is highly likely that in future there will be people actively working who would today be considered retired. Accordingly, we may expect a change in the risk profile of insurance portfolios in the form of higher sums insured on elderly people.

In life and health insurance, medical underwriting is currently a process with a variety of functions, for instance:

1. Identifying risks which will require special terms, such as an increased premium, reduced benefits, or modified cover
2. Classification of risks in order to ensure appropriate pricing
3. As far as possible, matching the assumptions made in the pricing with the risks taken on
4. Avoidance of uninsurable risks
5. Guaranteeing that there is a suitably insurable interest, e.g., financial underwriting

The morbidity of many illnesses, especially chronic ones, increases with age. Accordingly, an aging population throws up additional challenges that entail extending the functions of insurance underwriting. Emerging technologies mean that it is already possible today to identify segments within a portfolio with a lifestyle that is conducive to chronic health risks.<sup>3</sup> Integrating this kind of service into an insurer's own range of insurance policies allows the insurer to design personalized measures that will incentivize and promote a more healthy lifestyle. This could undoubtedly lead to the stabilization of the state of health of an aging portfolio.

### DIVERSIFICATION OF SALES CHANNELS

Recent years have seen a growth in the importance of new sales channels, such as the Internet or, more recently, mobile applications. These channels coexist with traditional sales channels such as agents or bank insurance channels. Each of the sales channels has different target users. Whereas the younger generations gravitate more towards telecommunication media, the elderly population has a greater tendency to remain loyal to traditional sales channels. In future, as the general population ages, it will be important to take into account the sales channel preferences of the different age groups in order to avoid excluding a significant proportion of potential insured persons who are unfamiliar with certain channels. In other words, although certain channels may be more cost effective, we cannot forget that they may also have limited reach when it comes to an ever more elderly population.

### NEW AND MORE COMPLEX PRODUCTS

A growing life expectancy will probably change the type of products offered on the market. A person who expects to live longer will be more interested in products that confer benefits while alive and less in those that insure against his or her death. Accordingly, we will see a growing demand for policies that transfer the risk of longevity to the insurer, such as annuities, long-term care insurance and products with a savings component. In health insurance products, we will see more extensive ages of cover. Similarly, we shall see growing demand for policies that grant wider cover for the treatment of illnesses, many of them chronic, which tend to manifest themselves at advanced

age, such as dementia or Parkinson's disease. The inclusion of treatments and therapies that arise due to scientific advances, at reasonable prices, will be key to adapting the policies offered to a population with different needs.

Among the range of current protection insurance focusing on an elderly population, we may highlight the following ideas:

**Over-50 life cover.** This range of products has become increasingly popular in the UK. This type of insurance involves guaranteed acceptance cover, meaning that there is no kind of underwriting—either before or at the time of the claim—with a level premium, for the purpose of providing a modest sum insured to persons who are between 50 and 80 years old and who would not be eligible for insurance under a normal medical underwriting regime. The aim of such policies is to provide funds for such things as funeral costs or the payment of debts outstanding at the time of the policyholder's death.

**Long-term care.** In Latin America we can currently see the first products venturing into the field of disability cover geared towards elderly people who have retired from working life, in which the benefits (a fixed sum insured or a temporary annuity limited to a few years) are activated by the continuous and permanent failure of different (usually three or four out of six) activities of everyday life (ADLs), even with the use of suitable aids. These activities are normally defined as follows:

- The ability to move from one room to another across a flat surface
- The unaided ability to wash oneself
- The unaided ability to dress oneself
- The ability to consume drinks or eat, once the food or drinks have been prepared
- The ability to get in and out of bed, a chair or a wheelchair
- Continence

Many chronic illnesses present in old age entail an inherent risk that the sufferer will lose physical abilities and that this will prevent him or her from living a normal life (defined as the performance of the ADLs). This kind of policy is clearly designed to provide the financial aid necessary to initially fund the lifestyle changes necessary to maintain a decent quality of life.

**Specialized cover for people with chronic illnesses.** Particularly in South Africa, life and disability products designed specifically for people suffering from diabetes or HIV have become very popular. Previously, these risks were considered uninsurable or at best only acceptable with great underwriting efforts. However, medical advances have not only allowed these

to be converted into insurable risks but even to allow these risks to be accepted rapidly and with surcharges which are geared to the actual state of the illness in question, therefore better reflecting the condition of the person seeking insurance. In future it is highly likely that medical advances will permit the insuring—at reasonable premiums—of risks, many of them age-related, which are at present regarded as uninsurable due to the extent of the risks.

**Products geared to biological age.** Generally the terms and conditions of an insurance policy are geared to the actual age of the insured person, on the assumption that age itself is a factor indicating the insured person's actual state of health (at least from a statistical viewpoint). In other words, the older a person is, the greater the risk he or she is deemed to represent (whether of death or disability), and this is therefore reflected in the policy premium. Currently, though, cover can be found that goes beyond mere age and takes different factors into account (including on a regular basis), which could be better indicators of health (that is, indicative of a given physical or biological age) and, accordingly, of the risk to be insured. These factors may include the following:

- BMI
- Systolic and diastolic pressure
- Triglycerides
- Cholesterol (HDL & LDL)
- ALT, AST & GGT
- HbA1c
- Glycosuria and Proteinuria

**Specialized medical expenses products for persons of advanced age.** In certain countries, such as the U.S., we find major medical expense products designed specifically for the needs of people over 50. Clearly, the modules making up such products will differ from those required by younger people. For example, whereas the maternity or childcare modules would no longer be required by an elderly person, the insurance profile would be oriented more toward areas covering joint or hip problems or perhaps cardiothoracic surgery.

### CHALLENGES AND OPPORTUNITIES FOR PRICING

For insurers, longevity risk is the risk that their insured lives live longer than expected. This is a risk which, if any of the scenarios projected above were to become reality, could have a major impact on the profitability of a product should the various guarantees (e.g., level premiums, ages of cover, etc.) have been inadequately priced, or should reality fail to conform to the initial assumptions; for instance, due to a greater than expected reduction in mortality. Moreover, under a Solvency II regime, all the guarantees, including those relating to longevity risk,

come at a price, reflecting the increased capital requirement. Accordingly, it is necessary to apply models that allow for:

- Improvements in mortality
- The dynamic between the demographic variables and their impact on the various risks assumed
- The economic environment and backdrop, as well as their impact on the different variables

It is clear that those insurers who succeed in better understanding risks and have greater analytical capabilities will be able to make more informed decisions and offer their customers better products.

### CONCLUSION

Over the past few decades, Mexico has undergone a profound demographic transformation. Mortality rates tumbled between 1950 and 1990, while the same period also saw a rapid fall in fertility rates. Both factors, combined with the phenomenon of migration, have contributed to the ageing of the Mexican population. Various projections demonstrate that this trend will continue over the coming decades and will reach levels that can already be observed in certain countries of the European Union. This societal change will bring with it a corresponding change in the target market of insurance companies, both in terms of its composition and in the type of products required. Not only the design but also the pricing of products and underwriting of risks will increasingly have to focus on an ageing population. Moreover, in order to remain sufficiently competitive through stable premiums, insurers will have to develop underwriting mechanisms aimed at promoting and maintaining health within an ever more elderly portfolio. The future will pose challenges. However, every challenge also offers growth opportunities and mutual benefits that can be shared by the insurer and the insured. ■



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### ENDNOTES

- 1 OECD Reviews of Pension Systems: Mexico, 2016 OECD.
- 2 [https://www.versicherungsjournal.at/markt-und-politik/die-finanzielle-lage-der-generation-50-plus-19151.php?vc=rss\\_artikel&vk=19151](https://www.versicherungsjournal.at/markt-und-politik/die-finanzielle-lage-der-generation-50-plus-19151.php?vc=rss_artikel&vk=19151).
- 3 PAI—Personal Activity Intelligence, <https://www.paihealth.com/>.