



SOCIETY OF ACTUARIES

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World trends in actuarial education systems

by Cecil Bykerk

If the rest of the world heads one direction, does that mean it's the right way to go? No, but when several highly regarded examination-based actuarial education systems independently adopt a similar response to trends and forces, you can at least see that you are in good company.

The Society of Actuaries (SOA) has heard from some of our counterparts overseas about meaningful changes they have made or are making to their basic education systems. Comparing the rationale underlying the SOA redesign with these organizations and, more importantly, how the approaches differ may provide insight on what the future may hold for us as professional actuaries.

As national borders become more porous for business, education must emphasize what is central to the endeavor, using nation-specific details as examples. The focus on universal applications that go beyond a particular environment means that education acquired and examined will enable actuaries, novices or professionals, to broaden their horizons and move into new markets (geographical or industry-wise). We see this refocus in the new examination system shared by the Institute of Actuaries in the United Kingdom and the Faculty in Scotland, where the focus is on educational objectives that drive each course/examination. The Institute/Faculty perspective resembles that of the SOA in viewing the role of the actuary going beyond traditional insurance and benefit concerns to include all areas of investment and future financial environments.

However, the SOA redesign now underway takes actuaries well beyond the recent expansion into investment-related businesses. The SOA vision is that actuaries fulfill a very valuable, though yet to be fully appreciated, function in virtually any business or endeavor subject to financial uncertainty. We won't immediately convince the world of that value, as we well

recognize that being ready to train actuaries in the fundamental principles, so they can adapt analytical tools and apply them to new situations, is a critical step in that direction.

Another major theme is educating actuaries to be grounded in all traditional areas of actuarial practice. The trend to ensure a level of mastery in life, health, investments, pensions, and property/casualty is demonstrated in the Institute/Faculty system. The Institute of Actuaries of Japan has recently begun to discuss requiring actuaries to study topics covering all practice areas. The Institute of Actuaries of Australia is discussing a syllabus that has the actuarial control cycle as an integral part (see article on page 6). It is designed to provide the actuary with "a generalized actuarial approach necessary to tackle a range of commercial problems." The actuarial control cycle is deliberately detached from a specific area of practice; examples will be drawn from a diverse range of areas.

The SOA has moved in this direction, covering major areas except for property/casualty, within the core examinations. Coverage of investment topics is considerably strengthened. Before the movement to redesign the basic education system, the SOA Board of Governors previously approved changes intended to require coverage of fundamental property/casualty topics. Grounding in all areas expands the number and nature of familiar concepts and techniques the actuary can bring to new problems that can arise in an increasingly complex and less predictable financial environment.

The SOA redesign principles reflect the trends already noted but also broaden the actuary's perspective and enhance/hone skills needed to professionally apply those skills into whole new realms. Banking, investment houses, biostatistics, manufacturing—we already are making inroads in some of these businesses, and the relevance

and applicability of our distinctive skills to others are obvious. Other possibilities are less obvious and may not even occur to us right now.

If we concentrate within the basic education system on acquiring full-range expertise in financial modeling; on working with business professionals who have other skills; and on assessing, evaluating, and managing risk and its consequences, then meaningful applications of these competencies appear almost endless.

We view the SOA redesign as going beyond the other systems mentioned. The Institute/Faculty system is intended to ground actuaries in all major traditional areas and cover investments. Applying actuarial approaches and tools to other business areas involving financial risk is not part of the plan. The Institute of Actuaries of Australia envisions a more general approach intended to transcend traditional areas of practice. The framework proposed for the actuarial control cycle fits the analysis and considerations into specific objectives that directly apply to insurance and pensions, seemingly doing little to promote insight into the application of actuarial tools outside traditional businesses. The SOA has a more ambitious vision that calls for the education system to provide exposure to a vast array of applications, promote development of financial modeling expertise to apply to risk-based situations, and hone the skills of actuaries through a focus on underlying principles. If we succeed in realizing our goals, the actuary in this brave new world will be ready to face and master the financial uncertainty of the future in several respects.

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