



SOCIETY OF ACTUARIES

Article from:

The Actuary

November 1981 – Volume 15, No. 9



The Actuary

The Newsletter of the Society of Actuaries

VOLUME 15, No. 9

NOVEMBER, 1981

OUR NEW MODEL VALUATION AND NONFORFEITURE LAWS

by John O. Montgomery

(First of Two Articles)

Ed. Note: Throughout the development of these model laws Mr. Montgomery was Chairman of the NAIC Technical Task Force on Valuation and Nonforfeiture Value Regulation.

The thoroughly revised model laws governing minimum reserves and nonforfeiture values that the NAIC adopted in December 1980 are likely to have at least as great impact upon company operations as did the Guertin legislation forty years ago. This first article undertakes to place this subject in perspective by describing the objectives of the revision, the immense cooperative effort entailed, the actuary's role in doing business under the new law, and some immediate effects foreseen.

The second article will explore the derivations of the mortality and interest assumptions that are prescribed and permitted, and look at some transitional and operating questions that arise.

Objectives

The first purpose was to bring the basic actuarial assumptions up to date in the light of the major interest and mortality changes since the predecessor model was adopted nearly a quarter-century ago. But a companion objective of equal import was to introduce flexibility, i.e., ready adaptability to future changes in underlying conditions, without the troublesome and lengthy process of state-by-state legislative revisions. The keys to this flexibility for interest rate changes are rates tied to prevailing long-term market interest levels—and for mortality, authority given to commissioners to permit use of new tables that may be adopted by the NAIC.

(Continued on page 8)

ELECTIONS 1981

The results announced in Atlanta are:

<i>President-Elect</i>	Barbara J. Lautzenheiser
<i>Vice Presidents</i>	Harold G. Ingraham, Jr. Richard S. Robertson
<i>Secretary</i>	Kenneth T. Clark
<i>Treasurer</i>	Robert J. Johansen
<i>Director of Publications</i>	Edward J. Porto
<i>Board of Governors</i>	Nicholas Bauer M. David R. Brown Gary Corbett Ardian C. Gill Walter N. Miller Peter W. Plumley

The number of votes cast, from among 4485 eligible voters, was 2334 (52.0%). Last year's percentage was 56.3%.

GAINING ENTRY TO YOUTHFUL MINDS

Ed. Note: This is excerpted from a letter written to Director of Education Linden N. Cole.

Dear Linden,

Recently I spoke at a junior high Career Day. I had ordered the Society's Speakers' Kit which I found informative and most helpful in my decisions on what to say and how to organize it. Yet, my youthful audience's attention seemed to fade as I just talked about insurance in general, the work and the exams. But these kids of almost driving age were with me again as I sought their help in calculating the annual premium for a 16-year-old's automobile insurance.

I started with this hypothetical case:

Number of 16-year-olds insured	1,000
Number of accidents expected	200
Average cost of repair for one accident	\$ 1,500

(Continued on page 8)

LOYOLA PROGRAM ENDS

by Ralph E. Edwards

An employed-student Actuarial Science Program that Loyola College started eleven semesters ago is ending this fall. Ostensibly our predicament was marginal tuition income arising from too few enrollments; but more fundamental reasons for stopping were that evening classes take inordinate travel time for a student body coming from Baltimore and Washington, that students prefer programs operating mostly in employer hours, and that instructors (who are full-time actuaries) are unavailable or have to sacrifice their own vacations for classes. Even so, these handicaps might have been survived had we conquered other problems more successfully than we did.

Coping with syllabus changes was among these other problems. This summer we needed to produce a new program brochure and to start recruiting instructors so they could obtain texts and prepare for classes to start next January. What we encountered was a major syllabus change, with many details unsettled yet scheduled for the May 1982 examinations. Back in the spring of 1979 our enrollments shot up as students sought to pass Part 5 ahead of a syllabus change; a postponed effective date this time might have kept us from shutting down, particularly since enrollments could be expected to rise because Northeastern University's program is closing.

Only a day or two before deciding to close, we protested to the Society about the hasty syllabus change. The timing criterion shouldn't, of course, be whether or not students are encouraged to beat the deadline. Three dates are involved: first, when the decision is announced; second, when all details are settled and all study material made available; third,

(Continued on page 8)

Valuation and Nonforfeiture Laws

(Continued from page 1)

A third aim has been to accommodate the laws to plans of insurance that have recently come into being (and perhaps even to those that may be designed in years ahead), ensuring consistency in nonforfeiture values by policy form. And, finally, the search was for a model that would merit uniform enactment in all U.S. jurisdictions.

The Work Of Many Actuaries

Development of these laws marks culmination of labors of many actuaries—at least a hundred on all the advisory groups and task forces involved. The initial push for revision came from the January 1976 report by the Society's Special Committee on Valuation and Nonforfeiture Laws chaired by Henry C. Unruh; comparison of the final result with those recommendations will show that most of them were accepted, either in full or in part. Charles F. B. Richardson, then Chief Actuary of the Tennessee Department, was a great asset to the NAIC Task Force, both in general and for his work on expense formulas. The findings of the Society's Special Committee to Develop a New Mortality Table chaired by Charles A. Ormsby contributed greatly in its sphere. Ted Becker, my Task Force colleague and successor-chairman, gave strong leadership throughout.

An ACLI subcommittee chaired by Yuan Chang did yeoman work in developing basic features of the dynamic interest rate approach. And the final resolution of diverse views into a widely accepted legislative solution was built upon the work of a group chaired by Charles Greeley; in a few months they achieved spectacular success in a truly professional manner. I wish space permitted naming many other contributors to what has been a remarkable achievement.

The Practicing Actuary's Role

If ever a company actuary or consulting actuary could unconcernedly adopt minimum statutory policy reserves, that day has long since gone. Not only is there now a Certificate of Actuarial Opinion on the over-all adequacy of reserves to be faced, there is also the requirement in the Society and Academy Guides to Professional Conduct that a member exercise best judgment to ensure that assumptions are adequate and

appropriate. Furthermore, with respect specifically to the mortality assumption, the Ormsby Committee Report has wisely stressed that no recommended minimum must be allowed to replace the judgment of the actuary responsible for adequacy of reserves and general financial soundness.

Happily for the insuring public and for our profession's reputation, there is widespread evidence that most actuaries are taking these responsibilities with the seriousness they so clearly warrant.

Effects Of This New Legislation

On policies issued after the new law's operational date, all CRVM net premiums will be materially lowered—but the same is not necessarily true for terminal reserves. In general, minimum reserves using 1982 interest rates will decline on permanent plans by between 5% and 30% depending on plan, duration and issue age. But reserves on level term plans may often be found to have increased, a striking example being on such policies sold to women.

The new law will permit greatly reduced cash values on new issues, but competition can be counted upon to bring gross premiums down to the point at which interest-adjusted surrender costs will show considerable reduction. This is bound to place many existing non-participating policies in a non-competitive position, making them severely vulnerable to replacement unless companies take measures to remedy that condition. Some insurers have already embarked upon enrichment programs for their present policyholders; those who neglect to do so will probably lose most of their policies held by people who are insurable at preferred or standard rates. □

(To Be Continued)

Loyola Program

(Continued from page 1)

the examination itself. We suggest that there be at least ten months separating the second and third of these dates; thus, texts can be ordered and early study facilitated, particularly for students not attending classes. Does the E. & E. Committee give interested actuaries enough opportunity to comment on proposed changes?

Another problem with syllabus changes is that new topics are not evolved gradually, but are given full treat-

ment and then later cut back to make way for the next new topic. Yet another has been uncertainty, exemplified by minor changes back and forth in the assigned sections of the Numerical Analysis text. The latest proposals seem to return that subject to a modernized version of where it was around 1940, with a new chapter on Iteration. Actuaries of different generations can, it seems, communicate on fundamentals, but less readily at the periphery of a field. □

Youthful Minds

(Continued from page 1)

Everyone saw that \$300 would have to be collected from each insured to pay these claims. Then I asked, "But what if more information was available?"

	Number Insured	Number of Accidents
Boys	500	150
Girls	500	50
Total	1,000	200

Question: "Should \$300 still be the premium for all 16-year-olds?" After long discussion the audience finally agreed (the males somewhat grudgingly) that the boys should pay more. So we calculated the two sets of rates.

Then more calculations as yet more data became available—driver education and what it does to accident rates; living in City A where repair work costs twice as much as in City B—

When I asked what other information might be useful in rate-making, I was inundated with responses, most of them theoretically sound though not practical. This brought us to discussing data collecting: its cost, how much accuracy needed, how to avoid subjectivity.

Later on, we discussed the insurance company's expenses and the idea of a gross premium. But whenever I got too far away from numbers, interest dropped off quickly. Next time, if there is one, I'll make the example my focal point and arrange the other information around it.

At the next revision of the Speakers' Kit, perhaps the role of the numerical example might be expanded.

Nora E. Moushey

Ed. Note: We hope there'll be many a next time for Nora and that others will send us accounts of their experiences at the podium. □