



SOCIETY OF ACTUARIES

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## The complete actuary

# Managing the product development process

by David S. Lee

A promising career path for pricing actuaries in medium-sized and large companies can take them from pricing new products to management of the entire product development process. To make this a successful promotion, the actuary must have a special set of management skills.

A pricing actuary's job is very focused. The main accountability is to design and price products in accordance with corporate competitive objectives and profitability objectives. To do this, he/she needs strong technical skills acquired through advanced actuarial education and experience. The pricing actuary must interact well with marketing associates to help transform marketing priorities into viable products. Judgment, problem-solving skills, and a knowledge of regulatory requirements also are prerequisites.

When the pricing actuary gets promoted into the responsibility for the entire product development process, the job is expanded. Because the actuary is still accountable for the design and pricing of products, the technical and problem-solving skills are still very helpful. However, the accountability is expanded to include the delivery of the product to the marketplace on schedule and on budget. This calls for an additional set of managing skills.

The job of managing the product development process normally consists of the following steps:

1. Develop a strategic plan for new product development. Depending on the company, the actuary might have to develop plans separately for several different marketing channels (agency, brokerage, direct response, life, health, annuity). The next step might be combining the plans for each distribution channel into a comprehensive product development plan. This is followed by communication of the plan to senior executives and department managers involved with product implementation. We use this approach at our company. It gives senior management an opportunity to judge

whether valuable resources will be allocated properly between lines when the plan is implemented. It also allows department managers to examine their product development resource requirements so they can plan and prioritize their workloads and address any potential problems.

2. Work with marketing and administrative areas to help transform marketing priorities into products that satisfy corporate competitive and profitability objectives. This often requires managing conflict. Marketing tends to be more top-line oriented, while actuaries tend to be more bottom-line oriented. The administrative areas tend to discourage bells and whistles on products that can make their jobs more difficult. Marketing likes bells and whistles that might result in additional sales. Developing successful products usually requires flexibility from all parties.

3. Develop and monitor an implementation schedule for each new product. A schedule will include designing and pricing the product, drafting the policy, obtaining staff approvals, preparing sales materials, developing proposals, implementing the product on the company's administrative systems, and making sure the administrative areas can administer the product. Some or all of these functions may not report directly to the actuary. The actuary must involve each of the areas in product implementation to buy off on the schedule, and must monitor the implementation to make sure key steps are completed as scheduled.

What skills does the actuary need to be successful?

The ability to delegate is necessary for survival, given the expanded level of responsibilities. It's also necessary to develop subordinates, such as the new pricing actuary. However, it can be very difficult to "let go." In many cases the actuary's outstanding technical work contributed to his/her promotion. Now it is necessary to delegate projects the actuary enjoys and

does well. While subordinates now do most of the technical work, the actuary develops business skills and a broad corporate approach to problems.

In many organizations, the actuary managing the product development process needs strong leadership skills to accomplish work outside the span of direct control. Some or all of the functions discussed earlier may not report directly to the actuary. Delays in any of these areas could cause a major delay in the release of the product to the field. The actuary must effectively communicate the new product's importance to people in administrative areas that may not have a product focus. To be successful, it's important to be viewed as a role model within the organization.

The strong planning and organizational skills needed to produce a product development plan are helpful in preparing and monitoring complex implementation schedules for several products simultaneously.

Managing the product development process requires outstanding negotiation abilities, which will be applied almost daily. In preparing the product development plan, there is often negotiation of priorities. During the development of a product, there's always negotiation between marketing and actuarial concerning the competitive/profitability balance. There also is the opportunity to negotiate product design with the administrative areas, since some designs are simpler and/or cheaper to administer than others. The actuary may have to convince marketing to accept its second choice on a certain design feature because it's significantly cheaper than the first choice. Finally, influencing people outside the span of direct control to complete work on schedule may provide extremely challenging negotiation opportunities.

Another important skill is communication. The actuary must be comfortable making presentations to senior management and to the field. The actuary may need to establish a communications network throughout the organization, so that an area's inability to meet the implementation schedule on a particular project is communicated early enough during the implementation process to avoid major damage.

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The actuary with these highly developed skills is a valuable member of the corporate management team. How can the pricing actuary (or the actuary in another area) develop the skills necessary for success at this position, or other similar senior positions? Problem-solving and technical skills result naturally from actuarial education and training. Development of other skills may require additional preparation. For example, it would be helpful to volunteer to work on projects with people from other departments, giving the actuary increased visibility in the organization and increased knowledge of functions of other areas. Another possibility would be to take a public speaking course, which will make it easier to give presentations and participate in meetings. Writing memos should be viewed as an opportunity to improve written communication skills. Many companies offer helpful courses in basic management and supervision as part of their training programs.

The type of position described above requires considerable managerial expertise from the successful candidate. However, for those possessing or willing to work hard to develop the necessary skills, a very rewarding career path is available.

David S. Lee is Senior Vice President and Actuary with United of Omaha Life Insurance Company. He is an Assistant Editor of *The Actuary*.

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### Mail alert

The First Ballots for the Society's 1990 elections were mailed to all Fellows on March 27 and should have been received prior to the arrival of this issue of *The Actuary*. To be valid, ballots must be returned to the Society office by May 1.

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### In memoriam

D. H. Samuel Bateman FSA 1954  
Milton J. Goldberg FSA 1940  
John S. McQueen ASA 1981

## The 1991 Census in context of the Canadian statistical system

by Edward T. Pryor

*(Foreword: This article on Statistics Canada continues the series on federal government statistical agencies sponsored by the Committee on Government Statistics.*

*Statistics Canada contrasts sharply with the U.S. statistical system. Canada's statistical system is centralized in Statistics Canada; in the United States, independent statistical agencies gather, analyze and report on their own areas of interest under the general direction of the Office of Management and Budget (OMB). There has been a continuing debate in the United States on adopting a centralized system like Canada's with persuasive arguments on each side. Both systems have advantages and disadvantages although in practice they are more alike than not.*

*This article describes the Canadian statistical system and plans for the 1991 Census. A rereading of the article on the U.S. Bureau of the Census in The Actuary, September 1988, is suggested.)*

Fundamental to understanding a nation is the information it collects to tell about itself — information on its population, labor force, economic life, education of its citizens, quality of its housing, transportation networks and social and cultural life.

The collection of this information represents an enormous task that literally involves all of its citizens. As Canada's central statistical agency, Statistics Canada has to collect, analyze and publish statistical information that describes the economic and social conditions of the country and its citizens.

To accomplish this effectively, Statistics Canada has organized its programs into three broad subject areas: demographic and social, socio-economic, and economic. The demographic and social statistics program monitors the growth and composition of the population, including fertility and mortality trends, geographic distribution, ethnic composition, education, immigration and health. The program also provides information about social institutions such as schools, universities and hospitals as well as about

Canada's judicial system and cultural institutions and activities.

The socio-economic statistics program reports on the economic well-being of Canadian households and families: employment and unemployment, incomes, expenditures and the effects of rising consumer prices.

The economic program monitors the performance of the Canadian economy, providing a wealth of data on the total production of industries, the commodities they produce, inputs of production, imports and exports, prices and ownership.

To gather this information, Statistics Canada forms a partnership with all Canadians. In this partnership, every segment of Canadian society contributes and benefits. Canadians provide Statistics Canada with "raw" numbers while Statistics Canada compiles and analyzes this information.

The Census of Population every five years is the cornerstone of this national data system, providing a unique data bank of statistical information not comparable to other sources of data. In contrast to sample surveys, a census is designed to include every resident of a country. A census collects not only fundamental demographic information on everyone, but also adds considerable detail on a sample basis. The Canadian census gathers standard information on many social and economic topics such as religion and places special emphasis on language background and use. The census is unique in at least three basic dimensions:

- It provides nationally comparable standardized information for a specific point in time;
- it covers a considerable range of demographic, economic and social data; and
- it provides information at a small-area level.

This combination of characteristics makes the census a very powerful package of benchmark data applicable to a wide number of situations, policies, problems and developments.

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