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The Pizza Hut actuary?

A look at the topic of nontraditional employers

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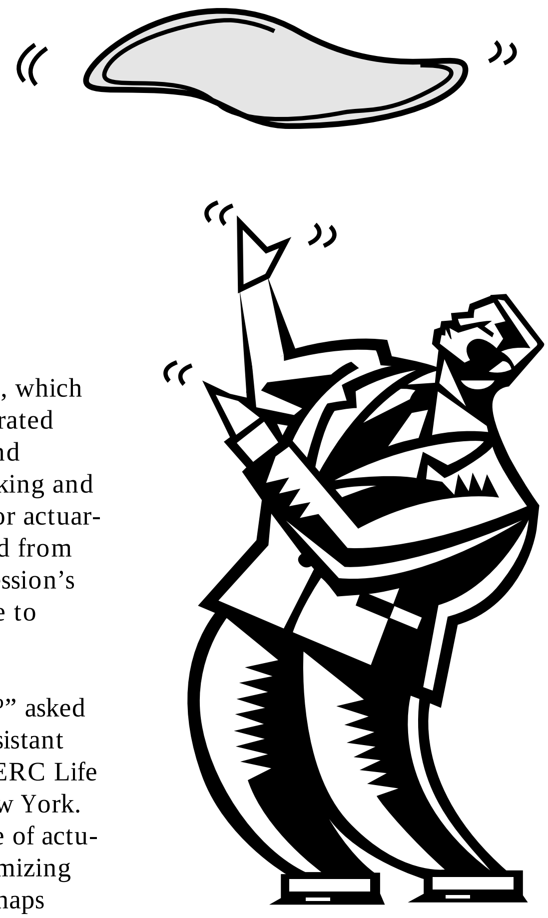

Peter Drucker, who published his first book in 1939, has a new one on the bookstore shelves: *Managing in a Time of Great Change.* The concept of change is wedded to today's business environment. The introduction to *Corporate Comeback,* the story of National Semiconductor, begins: "How do you achieve fundamental change without exposing your organization to unacceptable risk?"

Actuaries' ability to evaluate and help manage risk can make them key players in a wide range of business settings. Yet to do so — to move beyond the traditional employers — actuaries will have to make some changes in themselves.

These were the concepts behind the October 1996 annual meeting session "Marketing Actuaries to Non-Traditional Employers — what Product, Exactly, Are We Marketing?"

The session was developed by Joe Paesani, vice president and actuary for Union Fidelity Insurance Co. of Trevose, Penn. Paesani moderated a panel consisting of an actuary, a bank executive, and an executive recruiter.

"What professionals are equipped to manage risk?" Paesani asks rhetorically. "Actuaries have an incredible capacity and skill set that would allow us to make major contributions to any business where management of risk determines whether that business rises or falls as the environment changes.

"Yet outside of the insurance industry, there are entire risk management departments of major companies that do not have even one actuary. When executives anywhere build a risk management department, they should immediately think of actuaries."

The annual meeting session, which attracted a full house, concentrated on new approaches to using and presenting actuarial skills. Banking and finance, areas seemingly ripe for actuarial employment, were discussed from several perspectives. But the session's panel encouraged the audience to think even more broadly.

The Pizza Hut actuary

"Why not a Pizza Hut actuary?" asked panelist Robert L. Buckner, assistant vice president and actuary for ERC Life Reinsurance Companies in New York. Buckner applied his knowledge of actuarial work to the topic of maximizing profits for Pizza Hut. This perhaps melodramatic example raised ideas that may seem amusing to most actuaries but are crucial and "on target" when considering employment in non-traditional arenas.

"How sensitive are customers to ingredient changes in a pizza?" Buckner began. "Perhaps customers will trade a little bit of pepperoni for some extra sauce, or vice versa. Then, our actuary could compare the price of pepperoni versus that of tomato sauce, and by doing so, he or she could design a cost-efficient pizza.

"Then there are additional relationships," he continued. "If you're assuming linear relations, you'd use linear computation. If relationships aren't linear, the job becomes even more challenging for our actuary. Maybe there's even a use for fuzzy logic."

Applying skills actuaries use daily, Buckner said, "The Pizza Hut actuary could increase profits by 1%. That's the margin on many term products."

"But we can do more," he said.

"Build a hedge against rising ingredient prices with 'pizza futures' developed from beef, pork, and other commodity markets. Now, we've created a product with a higher profit margin with lower volatility. In effect, we've gotten closer to the efficient frontier: greater return with lower risk.

"Help Pizza Hut stay ahead of the consumer market. This would help the company sell more product and gain greater market share, perhaps without as much expensive advertising. The actuary could anticipate change in consumer buying habits through study of geography, demographics, and so on. What about drive-through pizza? Or ordering by computer? What about non-fat pizza? Who better than the actuary to piece together bits of demographic data to discover these trends?

"Finally, the Pizza Hut actuary could get involved in the hard financial analysis of capital needs."

"The list is endless," concluded Buckner. "This is not 'pizza pie in the sky.' If we think about problems a little bit differently, we can contribute to virtually any industry."

From insurance to banking

Panelist Barbara N. Opper, the World Bank's senior manager of financial policy and projections, sees banking as ripe for actuaries.

"Historically, banks had straight-forward risks," Opper noted. "In that setting, strategic planning was mainly for marketing. All that has changed with deregulation and a much more volatile environment."

"What's important today is risk-based product pricing. Banks are trading daily in futures, derivatives, and asset-backed securities. Pricing of these often is developed without real quantification of their inherent risks — flaws that would be obvious to actuaries." Furthermore, she said, "there's a need for asset-liability management of the whole balance sheet — institution-wide risk management."

Opper noted that many banking leaders, recognizing this need, have established a role in their banks similar to that of chief actuary in an insurance company. Also, bankers often hire from the investment banking arena, where the language and experiences are similar, risk management's value has been recognized, and risk managers have proved their worth.

The 'product' and its value need to be understood

Why hasn't the profession been able to expand into nontraditional areas? Paesani pointed out that while "there are many individual success stories," what's missing is "a wide general interest in hiring actuaries because of what they can bring."

Said Paesani, "It's probably a combination of lack of awareness by nontraditional employers of what actuaries can do, along with the profession's inability to clearly define the 'product' it has to offer and effectively market it to nontraditional employers.

"What's needed is a broader, concerted effort by the profession to recognize these nontraditional needs and implement strategies to expand our professional opportunities to address these needs."

What is the 'product'?

Panelists suggested answers to the question posed in the session's title: What product, exactly, are we marketing?

Said Buckner, "The 'product' is a broadly skilled professional who can compute probability, quantify risk, analyze alternatives, develop a solution, and communicate the results and the impact."

Opper saw actuaries as professionals engaging in "the measurement and communication of the financial implications of future contingencies — so that appropriate decisions can be made."

In this era of change, panelists urged listeners to know their strengths and weaknesses. However, Buckner mentioned some traits as weaknesses that also serve to define the profession. "For most of us, our actuarial education is based in life / health and employee benefits," he began. "Our knowledge horizons should be stretched beyond those industries. We can start with more closely allied industries — finance and banking."

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Learn the language, know the issues to win in nontraditional arena

If banks aren't hiring actuaries, why would Pizza Hut? This was the question posed by Aimee Jordan, executive recruiter with Andover Research Ltd. in New York, in the annual meeting session "Marketing Actuaries to Non-Traditional Employers — What Product, Exactly, Are We Marketing?"

Jordan's point was that for actuaries to build bridges into any nontraditional market, they need to speak the language of the market they're targeting. And if actuaries have a difficult time communicating an actuary's value to bankers — professionals focused on financial products, which are number-based — then job hunting in markets where the product isn't a financial one could be even more difficult.

What can actuaries do to surmount the barriers to nontraditional markets? Jordan used banking as an example of an area where actuaries might apply techniques to overcome barriers.

Language: Learn to speak the language bankers understand. Like hires like. Banker's hire MBAs because that's their background, too. Their comfort level depends on how well you communicate. You did not have a similar career path or work experiences. They need to know you think the same, even though you're different.

Learn about the industry: Actuaries must understand the day-to-day issues of the banking industry. This is not so actuaries can run the show or avoid a learning curve, but rather so interviewers can feel comfortable with your knowledge base and find common ground.

Demonstrate value: Show them how you can actually model a particular scenario or price a particular product. Then change it, and show them how your model will give them a new set of results with one change in the specifications. Ask them to put in a few variables of their own. Let these bankers see what you are capable of doing within their realm, that you can provide a valuable service — modeling, measurement of risk — that can make their business less risky.

Pizza Hut (continued from page 11)

Who should lead the way?

How can a demand for actuaries be created in the market? Panelists and audience members offered several suggestions.

Individuals: Develop a career blueprint, and prepare to work outside the traditional insurance marketplace. Develop communication and job hunting skills. Become aware of your strengths and limitations, and of other industries, their needs, and their languages.

SOA and the Foundation: "The profession needs to be a little more pro-active in effecting change," Paesani noted. "This can't be a part-time effort." Some suggestions include:

- Investing in and developing a full-time public relations program, "bringing someone on board to put together a marketing program, attend targeted non-insurance industry meetings"
- Strengthening ties to undergraduate finance programs to help attract more students to actuarial careers
- Persuading more consulting actuaries, who almost by definition lead a nontraditional work life, to help other actuaries gain new skills so they can break into new markets, leading to greater hiring of full-time employees in those markets
- Supporting the Foundation's work to gain visibility for the profession

Students or senior actuaries? Audience members attending the session raised the question of who should be the flag bearers: students who are beginning their careers and so won't suffer a salary loss by moving into a nontraditional area, or experienced actuaries who have better skills and could set an example in a new industry — or even hire actuaries?

Two audience members cast their votes for experienced actuaries. "In commercial banking, regulators are calling for high-level risk managers," one member said. "A few well-placed seasoned senior people who can speak the language could make a tremendous difference, at least in banking." Another audience member suggested that experienced actuaries could develop solutions to society-wide problems. "Senior actuaries can go to the public and make them aware that these are the skills actuaries have," he said, "and this would help the actuaries of the future. The sky's the limit."

Deadlines announced for 32nd ARC

The 32nd Actuarial Research Conference (ARC) will be held August 6-8 at the University of Calgary in Calgary, Alberta. ARC provides a central meeting place for academics and practitioners interested in all aspects of actuarial science.

Presentations on all topics of interest to actuaries are welcome. To accommodate scheduling, paper titles are due by June 1 and photo-ready abstracts are due by July 1. Presentations will be published in the conference proceedings, *Actuarial Research Clearing House* 1998.1.

For more information, contact Dr. David P.M. Scollnik, University of Calgary, Department of Mathematics and Statistics, 2500 University Drive NW, Calgary, Alberta, Canada T2N 1N4 (telephone: 403 / 220-7677; fax: 403 / 282-5150). Information also is available on the World Wide Web (http / / balducci.math.ucalgary.ca / 32ndARC.html).

Correction

In the December issue of *The Actuary*, the photograph of a school on page 19 was incorrectly captioned. The photo is of the Samuel W. Mason Elementary School in the Roxbury section of Boston, not the Liberty School in Springfield, Mass., as indicated. Both schools are receiving Advancing Student Achievement Grants from the Society of Actuaries Foundation to involve actuaries in volunteer programs in math education.

New specialty guide available

An updated Professional Actuarial Specialty Guide, "U.S. GAAP — Financial Reporting," edited by Bruce Darling, is now available from the Society.

The guide "U.S. GAAP — Financial Reporting" includes broad topics covering introductory material, authoritative accounting standards, relevant actuarial standards, and special topics.

The guide is enclosed with this issue of *The Actuary* for members of the Financial Reporting Section. Other Society members may obtain a copy by calling the Books Department at 847 / 706-3526 or faxing a request (attention: Books) to 847 / 706-3599. The SOA provides single copies free of charge. Multiple copies are available for a nominal fee.

Specialty guides are intended for actuaries who want to become familiar with or more competent in various specialized areas of practice. They give an overview of the area and describe the role of the actuary within the area.