

He has a way with numbers

Some people create with clay, some with words. Yakov Avichai creates with numbers.

The senior manager of Statistical Research can look at almost any situation that involves numbers, ask a lot of questions, scrawl a bunch of figures on his wall-length chalk board and come up with an answer. To those of us who have trouble balancing our checkbook, it might seem more like a conjurer's art than a job.

But if it's alchemy, it's profitable alchemy—this statistician's answers have translated into millions of dollars in sales and hundreds of hours in time savings for CNA.

Avichai and his nine-member staff are inside consultants for every department in the company. "As long as numbers are involved, we can apply our bag of tricks to help solve the problem," he says.

Statistics is not adding up a huge table of numbers, according to Avichai. "Modern statistics is making sense out of numbers, extracting the story behind the numbers and not letting them fool you," he asserts with characteristic directness.

"Of course," he adds, "modern statistics employs heavy mathematical techniques, and could not survive without computers."

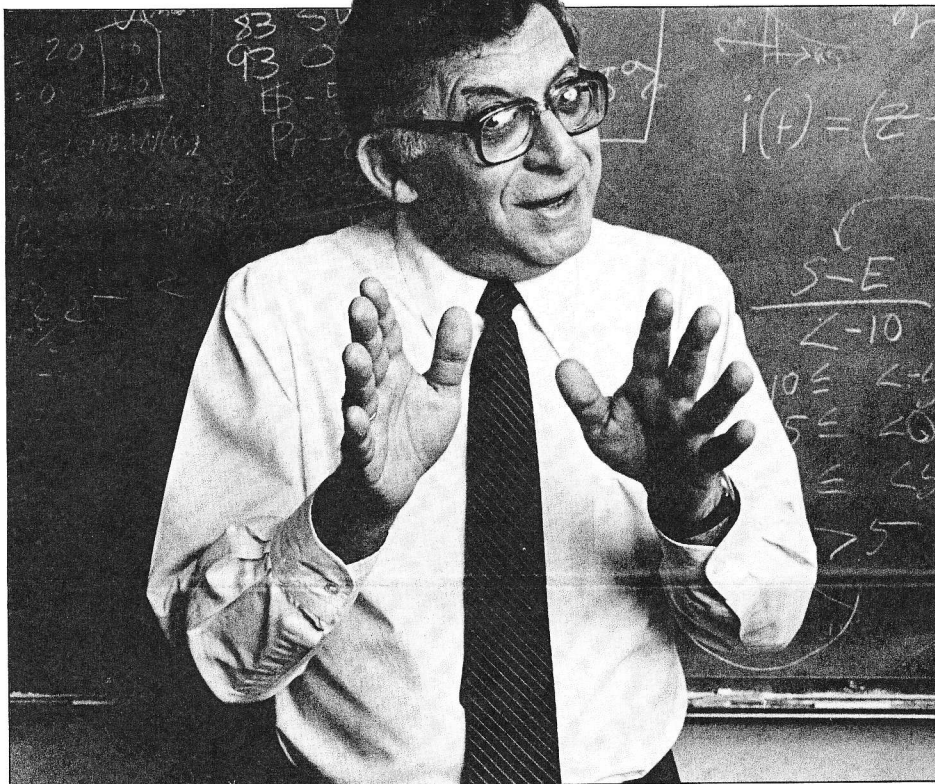
There is no computer in Avichai's own office. "Too tempting," he says. "I would never stop playing." But keep in mind that Avichai's definition of play is challenge. "Real camping" (a pup tent in the wilderness) and computer chess are favorite hobbies. "Fortunately for me," says the senior manager, "my work often feels like a very interesting and complex game of chess."

In his 10 years with CNA, Avichai has increasingly become known as someone to turn to with quantitative problems, proposals and hypotheses. He has no peers in most insurance companies.

"I suppose you could say I've created my own area," he relates. "But if CNA didn't appreciate the value of statistics, I wouldn't be here." Nor would a host of innovative and profitable products and projects.

For example, Avichai and his team recently created an investment strategy for the Pension Department product called Indexed GRAC. "Basically, we guarantee the client a certain percentage of a long-term interest rate index. This enables the client to achieve results based on current market conditions," he explains. "My staff developed the product, and the Pension Department sells it. We create new tools, but the departments decide how to use them."

Financial Marketing involved Avichai's staff in its large directors' and officers' insurance efforts. The statisticians developed a model that evaluates how likely a bank is to fail, allowing the underwriter to avoid high



Photography by Bruce Powell

risks and, consequently, losses. The model works so well that Avichai was asked to develop another for savings and loan associations.

"I think sometimes we're looked at as the Whiz Kids," he laughs, "but people have nothing to fear."

Proud of his hand-picked, highly trained staff, Avichai says, "I'm a missionary, and so is my team. We want people to know that we're here to help them. Except for the priesthood, statistics is the only discipline that trains you to serve every other discipline."

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And his own training? At the age of 14, the Romanian native moved to Israel. He completed his education in statistics at the Hebrew University in Jerusalem and, in 1967, he crossed the Atlantic to earn a degree at the University of Chicago. Avichai has taught mathematics at all levels from high school to graduate school.

"I love teaching, but from the beginning I was a doer and practitioner," he says. Avichai served as a consultant for the American Bar Foundation for 10

years as well as for clients as diverse as doctors, social scientists, meteorologists and the City of Chicago.

These skills transfer well to Avichai's work at CNA. A good teacher, he explains, can imagine what the other side needs to know, and a successful consultant can extract information without antagonizing the person he is helping.

"You must put yourself in the other person's shoes," he says, translating his point into the simplest of terms, as only a good professor can. "We must ask

questions, listen and react. Always, we must understand the meaning behind the numbers."

"We cannot afford to make mistakes," is one of Avichai's favorite sayings. His record of accuracy has prompted department after department to turn to him and simply say, "Here is my problem. What can you come up with?"

Internal Audit, for example, wanted to save auditors' time, so Avichai's department devised a new sampling

design which allowed them to sample 20 percent fewer cases without sacrificing validity. For Administration, his staff developed measurements for individual worker and branch productivity, as well as data quality standards. For Mail Services, it analyzed mail flow.

The list goes on. "For casualty reinsurance," Avichai recalls, "we created a particular pricing methodology for calculating increased limit factors, and I am told CNA is going to sell the methodology itself."

He and his Wonder Kids also developed an agency compensation payment model which estimates payments of bonuses to an agent based on his results. The model is used for planning and budgeting.

Avichai appreciates the creativity involved in his work. But, alas, many outsiders don't.

At many a dinner party the person next to Avichai asks the inevitable, "What do you do?" and he replies, "I'm a statistician." Then, he relates with a smile, "I can almost see them thinking, 'of all the bad luck!'"

He knows statisticians are expected to be boring. Yet, the word that best describes Avichai's work is diversity. "It's fascinating because we never stop learning," he says. "The only commonality is that we apply statistics to each problem."

"Insurance is a statistician's dream," says Avichai.

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