

ORMS

TODAY

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DOES MORE DATA = MORE INFO?

Biennial survey of statistical software highlights growing list of challenges, capabilities.

ALSO:

- **Change We Can Blog In**
The Internet helped get Obama elected. Can it also help him govern?
- **O.R. Credentialing**
Institute contemplates credentialing program for O.R. professionals

Poor Personal Choices & Depoliticizing Politics

BY BARRY LIST

Operations researchers have often prided themselves in their ability to make manufacturing and supply chains work more smoothly. Now, our science with a thousand applications is showing us how our mistakes can cost us our lives. In the November/December 2008 issue of *Operations Research*, veteran decision scientist Ralph Keeney demonstrated that individuals' poor decisions increasingly lead to premature death. Read below to learn how *Newsweek* described his research.

Reporters are increasingly turning to operations researchers for insights into the current round of economic peril, as several articles below demonstrate.

Discoveries and Breakthroughs Inside Science (DBIS), the joint program that allows researchers to communicate studies with broad application to the public via local TV news, continues to offer INFORMS members the chance to bring their research to the television and computer screen. Want to share your important research? Visit the INFORMS Newsroom at www.informs.org and follow the easy steps to explaining your work to DBIS editors.

Remember to share your research with the INFORMS Communications Department. Contact INFORMS Communications Director Barry List at barry.list@informs.org or 1-800-4INFORMS.

"With the dawn of a new and potentially difficult year upon us, many Americans will swear that this is the year that they'll eat better, exercise more or quit smoking. Of course, most of us will fail to stick to these healthy resolutions. And, while we know that getting in shape is good for us, a new study shows the true cost of our tendency not to make wise decisions about taking care of ourselves. According to Duke University's Ralph Keeney, whose work was

published last month in the journal *Operations Research*, America's top killer isn't cancer or heart disease, or even smoking and overeating—it's our inability to make smart choices that leads us to engage in those and other self-destructive behaviors.

"Each year more than a million people needlessly die because of their own personal decisions," says Keeney, whose work gives new meaning to the cliché we're our 'own worst enemies.' That means more than half the population will make a decision leading to an early grave, he reports, including a full 55 percent of people who die between the ages of 15 and 64. Most alarming, that figure has jumped fourfold since 1900, despite the world becoming a safer place overall thanks to seat belts, smoking laws, health food and a host of other tools to help people stay inside the lines."

— **Newsweek, Jan. 2**

"Conventional traffic engineering assumes that given no increase in vehicles, more roads mean less congestion. So when planners in Seoul [Korea] tore down a six-lane highway a few years ago and replaced it with a five-mile-long park, many transportation professionals were surprised to learn that the city's traffic flow had actually improved, instead of worsening. 'People were freaking out,' recalls Anna Nagurney, an [operations] researcher at the University of Massachusetts Amherst, who studies computer and transportation networks. 'It was like an inverse of Braess' paradox.'

"The brainchild of mathematician Dietrich Braess of Ruhr University Bochum in Germany, the eponymous paradox unfolds as an abstraction: it states that in a network in which all the moving entities rationally seek the most efficient route, adding extra capacity can

actually reduce the network's overall efficiency. The Seoul project inverts this dynamic: closing a highway—that is, reducing network capacity—improves the system's effectiveness."

— **Scientific American, February 2009**

"By demonstrating that requirements are driven by military necessity, even the most divisive political decisions can be depoliticized..."

"With a robust corps of operational research analysts, the ideal setting for evaluating and determining the private-sector needs of the military in future operations would exist. Developing and maintaining this corps of professionals ought to be a Pentagon priority."

— **Heritage Foundation, "Contracting in Combat," Jan. 13**

"Looking for another good reason to keep that New Year's resolution to lose weight? How about saving the planet? Operations researchers Sheldon Jacobson and Douglas King at the University of Illinois, Urbana-Champaign, calculate that trimmer U.S. drivers would burn about 3.8 billion liters less fuel per year. The estimate comes from combining driving data from the Department of Transportation, fuel-efficiency figures from the Environmental Protection Agency (EPA) and obesity numbers from the National Center for Health Statistics. Cars and light trucks currently burn around 0.0045 liters per kilogram of cargo every 100 km, EPA says. With Americans traveling 7.2 trillion km per year, each extra half-kilo of flab requires using an additional 150 million liters of gas. The average adult is nearly 14 kg overweight, teens around 3.6 kg, and children 1.4 kg. All this excess adds up to anywhere from 2.8 billion to 4.2 billion liters, the authors report..."

— **Science, Jan. 2**

"Nineteen years ago, Jennifer Courter set out on a career path that has since provided her with a steady stream of lucrative, low-stress jobs. Now, her occupation—mathematician—has landed at the top spot on a new study ranking the best and worst jobs in the U.S.

INFORMS MOVING SPIRIT AWARDS

Moving Spirit Award

Recipient:

Hsing Luh (Taiwan Chapter)

Flora Moving Spirit Award



Eric Wolman (right) accepts award from Ariela Sofer.

Recipient:

Eric Wolman (Women in OR/MS)

JUDITH LIEBMAN AWARDS



Ankur Jain (middle) accepts award from Halit Uster and Burcu Keskin.



Homarjun Agrahari (middle) accepts award from Halit Uster and Burcu Keskin



Vishnu Nanduri (middle) accepts award from Halit Uster and Burcu Keskin.

Recipients:

Ankur Jain (Purdue University Student Chapter), Homarjun Agrahari (Texas A&M University Student Chapter), Vishnu Nanduri (University of South Florida Student Chapter)

Student Chapter Annual Awards



Florida International University student (third from left) accepts award from Halit Uster, Tracy Byrnes and Burcu Keskin.



Halit Uster (third from right) and Burcu Keskin (far right) present award to representatives from North Carolina State University, Texas A&M, University of Massachusetts and University of Virginia.



Halit Uster (fourth from right) and Burcu Keskin (far right) present awards to representatives from Arizona State University, Louisiana Tech University, Oklahoma State University, University of Illinois-Chicago, University of Houston, University of South Florida and Virginia Polytechnic Institute & State University.

Recognition:

Outstanding participation and performance during the year of 2007

Recipients:

Florida International University (Summa Cum Laude); North Carolina State University, Texas A&M University, University of Massachusetts, University of Virginia (Magna Cum Laude); Arizona State University, Louisiana Tech University, Oklahoma State University, University of Illinois-Chicago, University of Houston, University of South Florida, Virginia Polytechnic Institute & State University (Cum Laude)

INFORM-ED

Case Competition

Recipient:

Guzin Bayraksan, University of Arizona

Recognized work:

"Quantifying Operational Risk in Financial Institutions"

Finalists:

Jeffrey Ohlmann and Justin Goodson, University of Iowa ("Hawkeye Football Programs")

JUNIOR FACULTY INTEREST GROUP

JFIG Paper Competition Award



(l-r): Raghu Raghavan (competition chair), Xin Chen, Oghuzan Alagoz, Raghu Pasupathy, Gad Allon, Kartik Hosanagar and Wei-yu Kevin Chiang.

Recipient:

Raghu Pasupathy, Virginia Polytechnic Institute & State University

Recognized work:

"On Choosing Parameters in Retrospective Approximation Algorithms for Stochastic Root Finding and Simulation Optimization"

Runners-up:

Oguzhan Alagoz, University of Wisconsin-Madison, "Optimal Breast Biopsy Decision-Making Based on Mammographic Features and Demographic Factors"; Gad Allon and Achal Bassamboo, Northwestern University, "We will be Right with You: Managing Customers with Vague Promises and Cheap Talk"

LOCATION ANALYSIS

Chuck ReVelle Rising Star Award



Zuo-Jun (Max) Shen (left) holds Rising Star Award plaque.

Recipient:

Zuo-Jun Max Shen, University of California, Berkeley