

## CPMS Newsletter September 2005

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### National Meeting Moved to San Francisco

Because of the hurricane and flood damage to New Orleans, the INFORMS national meeting, scheduled for Nov. 13-16, has been moved to San Francisco. Check the INFORMS Web site for details about program, registration, lodging, and arrangements. INFORMS is also asking speakers, chairs and panelists to reconfirm their plans to attend, or to notify INFORMS promptly if they will not attend.

### INFORMS to Sponsor New Orleans / Gulf Coast Relief Effort

INFORMS is planning to support a relief effort in the hurricane-damaged area in and around New Orleans. Keep checking the INFORMS Web site for details.

### 2005 Daniel H. Wagner Prize Competition

The 2005 Daniel H. Wagner competition for Excellence in Operations Research Practice is now underway. Four finalist teams have been selected for the sixth competition. Presentations by the finalists will take place at the San Francisco meeting on Monday afternoon during the 1:30pm and 3:30pm sessions. If you will be at the meeting, make a point of attending these high quality presentations and examples of significant OR/MS applications. The four finalists are:

- \* **Rethinking Inventory Policies for Service Vehicles at a Major Appliance Manufacturer** by Michael Gorman and Sanjay Ahire, University of Dayton.

A major consumer appliance manufacturer needed to manage \$7 million in repair part inventories in over 1300 service vehicles while ensuring that its technicians carried the appropriate parts for completing repairs on the first visit. We applied a heuristic solution to the vehicle stocking problem and found that over \$3 million per year could be saved from warranty repair costs and first-visit repair rate could be improved from 86% to 90%.

- \* **Supply Chain Collaboration through Shared Capacity Models** by Karl Kemp and Shamin Shirodkar, Intel Corporation

The idea of collaboration between companies in a supply chain has been the subject of many discussions supported by few documented successful implementations. This contribution describes the application of multiple optimization models to the procurement of production

materials facilitated by the collaborative development of capacity models. Substantial productivity and profitability gains were realized by all parties.

- \* **Methods for Solving a Mixed Integer Program for Semiconductor Supply Chain Optimization at IBM** by Brian Denton, John Forrest, and R. John Milne, IBM.

IBM uses Operations Research models and methodology extensively for advanced planning of its semiconductor supply chain. The large-scale nature of these problems necessitates the development of robust and computationally efficient solution methods. In this presentation we describe our experiences in developing solution methods for solving a mixed-integer-programming (MIP) model for optimizing IBM's semiconductor supply chain.

- \* **Investment Analysis and Budget Allocation at Catholic Relief Services** by Ioannis Gamvros, Richard Nidel, and S. Raghavan, University of Maryland.

We present a budget allocation problem faced by Catholic Relief Services, a not-for-profit agency that funds humanitarian relief and economic development throughout the world. We develop a mathematical model and a spreadsheet tool that allocates funds based on estimated impact. The model ensures a fair allocation consistent with the agency's priorities and simple to understand. The tool has significantly improved the planning process.

Joseph Discenza  
Chairman, Wagner Prize Committee

### **Extreme Makeover of the Edelman Competition**

When you attend the upcoming INFORMS annual meeting in San Francisco, come hear the keynote session entitled "Extreme Makeover of the Edelman Competition." This keynote, on Tuesday, November 15, from 3:10pm to 4:00pm, features a distinguished panel whose members will both speak and interact with the audience. Dick Larson, INFORMS President, will serve as panel chair.

The panel's subject is the exciting role envisioned for the Edelman competition, long managed by CPMS, in the INFORMS science-of-better program to market the profession. No significant change is planned for the competition itself. The award ceremony and new related activities, however, will be red-carpet affairs designed to attract attention outside the profession. By means such as co-sponsors, increased publicity, special educational sessions, and a gala award-presentation event, CPMS and INFORMS will transform the competition to make it much better known among executives and leaders.

On the panel with Dick Larson, who is co-chair of the science-of-better committee, will be Philip Johnson, marketing advisor to the committee, John Milne, chair of the 2006 Edelman competition, and Irv Lustig, co-chair of the committee.

Don't miss this great preview of an upcoming event of great interest to practitioners.

Randy Robinson  
Member, CPMS Council and the Science of Better Committee

## Call for Award Entries: 35th Annual Franz Edelman Award Competition

The Franz Edelman Award Competition was created to recognize and reward outstanding examples of OR/MS in practice. If you have completed a project of practical application with results that have had significant, verifiable, and preferably quantifiable impact on the performance of your client organization, you may be eligible to compete. Winning author(s) will receive cash awards up to \$10,000. The deadline for submissions is Friday, October 21, 2005. For more information, please go to <http://www.informs.org/Prizes/EdelmanPrize.html>. For specific questions, please contact the competition chair John Milne at 802-769-5626 or <mailto:jmilne@us.ibm.com>.

John Milne  
Chairman, Edelman Prize Committee

## Call for *Interfaces* Practice Abstracts

The goal of "Practice Abstracts" is to present interesting, topical, and novel applications of Operations Research methodology to a wide range of industrial applications. "Practice Abstracts" are intended to provide *Interfaces* readers with short (2-4 page) descriptions of the most relevant aspects of Operations Research-based projects, in a form that is accessible to academics and practitioners in other organizations. The content of the abstract should include:

- \* The problem and the client company or agency, including background information as necessary;
- \* Who in the client organization sponsored the work and who did the work;
- \* What OR approaches or models were used, and how they were applied to the problem, identifying software packages where appropriate;
- \* What the organization learned and what happened subsequently, including the current status of the work if it is ongoing, and in particular how the organization has received and *used* the results. We encourage authors to report constructive negative results.

Submissions should be sent for consideration to the editor of "Practice Abstracts," Brian T. Denton, Division of Health Care Policy and Research, Mayo Clinic, 200 First St. SW, Rochester, MN 55905, U.S.A. Electronic submissions are preferred, and should be sent directly to [denton.brian@mayo.edu](mailto:denton.brian@mayo.edu). Submissions should be single-sided and double-spaced and should include all authors' mailing addresses and the contact author's telephone number, fax number and e-mail address.

Brian Denton  
Member, CPMS Council

## Palm Springs Roundtable Meeting

Over 40 members and guests of the INFORMS Roundtable met at Palm Springs preceding the INFORMS Practice Meeting. For this meeting, the Roundtable established a theme of "structured networking", where topics previously identified as interesting were presented for discussion. Doug Hay, of the Meetings Committee, proposed and guided this concept. The

roundtable discussion sessions complemented two sessions in which Roundtable members discussed OR applications at their firms (Procter & Gamble, Jeppesen Sanderson) and a final discussion session with INFORMS President-elect Mark Daskin.

Glenn Wegryn kicked off the Roundtable meeting with an overview of OR activity at Procter & Gamble. The company has a rich heritage of OR work and Glenn focused his comments on the last ten years, including being an Edelman Finalist in 1995 and culminating in the INFORMS Prize award in 2004. Glenn described several successful projects in analytical modeling, options analysis, optimization, and simulation. Glenn highlighted a large (at one point 1,000 team-member) specific project which involved many of these categories of analysis, the consolidation of North American manufacturing starting in 1993. Hans-Peter Gantz and Casey O'Donnell followed with a presentation of OR activity at Jeppesen-Sanderson, a company serving the aviation industry for more than 70 years. Hans-Peter and Casey described how OR contributes to optimally scheduling production of aviation chart revisions. They also described simulation (to improve product flow through distribution centers) and data mining (to support customer segmentation) applications. Considerable discussion resulted with each presentation, drawing out the critical success factors for applications at each firm.

The structured networking discussions involved two separate, but related topics: "Methods of Bringing OR Theory to Application" and "Why Are Good Projects Not Funded". Roundtable members had specific roles to extract the greatest value from the discussion. The intent was to identify lessons learned for each topic based on the experience and perspectives represented. Some significant points were:

- \* Avoid the tendency to strive for a perfect, 100% solution; 80% is frequently more than enough.
- \* Remember that many processes are manual and that any improvement is valuable.
- \* Avoid getting caught up in the quest for the "latest and greatest." Any improvement can be helpful.
- \* Above all, recognize that the speed of implementation and recognition of benefits are all-important. Don't arrive "after the train has left the station."
- \* Develop credibility with the client.
- \* Ensure appropriate metrics are in place to measure effectiveness of a proposed project.
- \* Focus attention on change management.
- \* Develop "selling" skills to increase the effectiveness of marketing proposals:
  - o Pitch the proposal to the right level of management.
  - o Develop the appropriate proposal material.
  - o Avoid making a proposal that is not "on target".
  - o Understand how the prospective sponsor feels about the proposal.

Finally, the Roundtable hosted a discussion with President-elect Mark Daskin about INFORMS publications' challenges and opportunities.

During the meeting, George Freestone was recognized for twenty years of service as the Roundtable General Secretary.

George Freestone  
Roundtable General Secretary