# THE BRIEFING

The Newsletter of the INFORMS Section on Public Sector Operations Research Volume 5, No. 2 • Fall 2014

## Welcome from the President

## Words from Laura McLay, President of Public Sector OR

I hope you enjoy our cluster of 35 sessions at the INFORMS Annual Meeting in San Francisco. I'm looking forward to seeing you at the conference. A list of the sessions appears later in this newsletter. Please note that as in previous years, we will have our business meeting over lunch, where we will go through section business and announce the winners of our paper competitions. The lunch will be held Monday, November 10, 12:30-1:30, at the Hilton. Further information is available below.

It is almost to the end of my tenure as President. I want to thank our officers for their service. I'd also like to thank the paper award committee for their service. Both the officers and paper award committee are listed later in this newsletter.

I am happy to announce that the INFORMS Section on Public Programs, Services, and Needs (SPPSN) will be changing its name to Public Sector Operations Research (PSOR). The INFORMS Subdivisions Council officially approved the name in October 2014. I want to thank you all for your help and encouragement along the way. I know the acronym is technically only 1 letter shorter, but I've heard from members that this acronym is much easier to remember and define. This new name will more clearly represent the purpose of our Section.

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## **Public Sector OR News**

#### New Name: Public Sector OR

After a vote by its members, the section has a new name: Public Sector OR. The new name captures the same concepts and interests as the former name – Section on Public Programs, Services, and Needs (SPPSN) – but is simpler and more straightforward. Section members voted overwhelmingly to approve the change.

## **INFORMS Connect replaces listserv**

INFORMS Connect has replaced the listserv previously used for section-wide email communications. All section members were auto-subscribed to a daily digest of activities, and should have received a notice to that effect. INFORMS connect should be used for all future communication.

## **Public Sector OR Best Paper Competition**

## Finalists for the 2014 Best Paper Competition

The third Public Sector OR best paper award competition is underway. The winners will be announced at the Public Sector OR business meeting at the 2014 INFORMS Annual Meeting, including a first prize, a second prize, and an honorable mention.

This award is intended to encourage journal-quality research in all of the disciplines and application areas represented within SPPSN, and to build a tradition of scholarly exchange of knowledge at our research meetings beyond attendance at sessions. I would like to acknowledge the chair of this year's committee, Itai Ashlagi, along with the entire judging committee:

- Itai Ashlagi, MIT Sloan School of Management (Committee Chair)
- Jason Acimovic, Pennsylvania State University
- Benjamin Armbruster, Northwestern University
- Hugh Medal, Mississippi State University
- Shan Liu, University of Washington

The finalists are (in alphabetical order):

- Yan Deng, Siqian Shen, and Brian Denton, "Chance-Constrained Survery Planning under Uncertain or Ambiguous Surgery Durations"
- Monica Gentili, Nicoleta Serban, and Julie Swann, "What are the areas in need for improving spatial access to pediatric primary care?"
- Hasan Manzour and Suleyman Karabuk, "Evacuation management under hazardous convective weather events"
- Alex Mills, Jonathan Helm, and Yu Wang, "SURGE: Smoothing usage of resource is good for emergencies"

# Public Sector OR at the 2013 INFORMS Annual Meeting

#### **Public Sector OR Sessions**

The 2014 INFORMS Annual Meeting will be held in San Francisco, November 9-12, 2014. Public Sector OR is sponsoring or co-sponsoring a total of 35 sessions at the meeting on a wide range of topics, including medical services, public health, humanitarian and global health supply chains, and public and community-based services.

Thanks are due to Burcu Balcik (Ozyegin University) and Joost Santos (George Washington University) for co-chairing the cluster, and to all the session chairs for putting together an excellent program.

Sunday Nov 09, 08:00 - 09:30:Challenges of Post-Disaster Humanitarian Logistics

Sunday Nov 09, 08:00 - 09:30:Homeland Security Applications I

Sunday Nov 09, 11:00 - 12:30:Optimization and Modeling For Election Systems

Sunday Nov 09, 11:00 - 12:30:Routing for Public Needs

Sunday Nov 09, 13:30 - 15:00: Humanitarian Logistics and Development

Sunday Nov 09, 13:30 - 15:00:Joint Session DAS/SPPSN: Societal Applications of Decision Analysis

Sunday Nov 09, 13:30 - 15:00:Public Health I

Sunday Nov 09, 16:30 - 18:00:Decisions in a Nonprofit Supply Chain I

Sunday Nov 09, 16:30 - 18:00: Humanitarian Operations Management Applications

Monday Nov 10, 08:00 - 09:30:Modeling the Education System

Monday Nov 10, 08:00 - 09:30:Public Health II

Monday Nov 10, 11:00 - 12:30:Decisions in a Nonprofit Supply Chain II

Monday Nov 10, 11:00 - 12:30: Joint Session SPPSN/MIF: Disaster Relief and Humanitarian Logistics

Monday Nov 10, 13:30 - 15:00:Humanitarian Logistics

Monday Nov 10, 13:30 - 15:00:Socially Responsible Operations

Monday Nov 10, 16:30 - 18:00:Community-Based Operations Research

Monday Nov 10, 16:30 - 18:00:Operations Research in Public Policy Analysis

Tuesday Nov 11, 08:00 - 09:30:Risk Analysis Models for Critical Infrastructure and Service Systems

Tuesday Nov 11, 11:00 - 12:30:Joint Session SPPSN/Minority Issues: Panel Discussion- Publishing Community and

Humanitarian Operations Research in High-Impact Journals

Tuesday Nov 11, 11:00 - 12:30:Models for Emergency Medical Services

Tuesday Nov 11, 13:30 - 15:00: Joint Session DAS/SPPSN: Decision Analysis in Policy Applications

Tuesday Nov 11, 13:30 - 15:00:Models for Health Care Delivery

Tuesday Nov 11, 13:30 - 15:00:Transportation and Security under Uncertainty

Tuesday Nov 11, 16:30 - 18:00:Joint Session Analytics/SPPNS: Analytics in Government, Defense, and National Security

Tuesday Nov 11, 16:30 - 18:00: Joint Session DAS/SPPSN: Decision Analysis Insights for Homeland Security

Tuesday Nov 11, 16:30 - 18:00:Transport Risk Management

Wednesday Nov 12, 08:00 - 09:30:Healthcare and Humanitarian Logistics

Wednesday Nov 12, 08:00 - 09:30:Homeland Security and Energy Policy

Wednesday Nov 12, 11:00 - 12:30:Next Generation Decision Support for the Next Pandemic

Wednesday Nov 12, 11:00 - 12:30:Preposition and Distribution Decisions in Humanitarian Operations

Wednesday Nov 12, 12:45 - 14:15:Fire and Emergency Medical Services

Wednesday Nov 12, 12:45 - 14:15: Homeland Security Applications II

Wednesday Nov 12, 12:45 - 14:15: Humanitarian Operations in a Response Supply Chain

Wednesday Nov 12, 14:45 - 16:15:Dynamic and Stochastic Models in Emergency Response and Preparedness

Wednesday Nov 12, 16:30 - 18:00:Managing Supply Chains in the Public and Non-profit Sector

### **Public Sector OR Business Meeting**

The business meeting will be held:

Monday, November 10, 12.30 - 1.30

Hilton Hotel: check conference program for confirmed location

During the luncheon, we will hold our forum meeting to go over the past year's activities and finances, and to present the finalists and winners of the Best paper award.

You can purchase tickets when you register for the INFORMS conference. For those who are already registered for the conference but not the lunch, lunch tickets can be purchased by faxing in payment with the pdf registration form: <a href="http://meetings2.informs.org/sanfrancisco2014/Images/SF%20Registration9.pdf">http://meetings2.informs.org/sanfrancisco2014/Images/SF%20Registration9.pdf</a>.

We would like to thank our sponsor universities for making the luncheon possible:

The University of Michigan, IOE department George Washington University, Department of Engineering Management and Systems Engineering

## **Section Membership**

Please remember to renew your PSOR membership for this year and for 2014. You need to be a current member to be able to post to the PSOR list and continue receiving e-mails from PSOR. There are several ways to renew:

- 1. Renew **online** at <a href="http://www.informs.org/Membership/Renew-Your-Membership">http://www.informs.org/Membership/Renew-Your-Membership</a> and, check "Public Programs and Special Needs" under Section.
- 2. If you have already renewed your membership but forgot to sign up for SPPSN, you can join an INFORM community here: <a href="http://www.informs.org/Membership/Join-INFORMS-and-or-INFORMS-Communities">http://www.informs.org/Membership/Join-INFORMS-and-or-INFORMS-Communities</a>
- 3. Renew by **phone** by calling INFORMS member services (800-446-3676).
- 4. Renew by **mail or fax** using the form [pdf] linked on the following website: https://www.informs.org/Membership/Join-INFORMS-and-or-INFORMS-Communities

## **Calls for Papers**

## Journal of Operations Management: Special Issue on Empirically Grounded Research in Humanitarian Operations Management

Guest Editors: Luk Van Wassenhove, INSEAD, and Alfonso Pedraza-Martinez, Indiana University.

Many humanitarian operations management (HOM) challenges are practical in nature. However, extant literature has prioritized optimization models based on abstract problems that are not sufficiently grounded in empirical observation. Thus, models are methodologically rigorous and deal with interesting technical challenges but often offer limited insights to practice. Failure to understand practice results in difficulties to establish a relevant theory of HOM. The objective of this special issue (SI) is to take an evidence-based approach for identifying, analyzing and quantifying important challenges faced by the practice of HOM. In doing so, submitted papers should fulfill one or more of the following criteria: Explore (new) HOM problems using rigorous case study research; Propose (new) theory relevant to HOM and test theory using real data; Have a solid empirical foundation and offer insights beyond the solution of a specific problem using real data.

Papers should show evidence of interaction with practitioners in the field and discussion of how the results respond to the practical problem, preferably by showing how the results have been implemented and tested. To fit the mission of JOM papers should fit in one or more of the following categories: a. Rigorous studies that use empirical methodologies: case studies, sample surveys, laboratory experiments, econometric analysis, and ethnographic studies. b. Empirically-grounded analytical modeling studies c. Papers that use multiple methods for triangulation purposes.

To be considered for review, submissions should follow the JOM guide for authors. Papers should be submitted via email to: alpedraz@indiana.edu. Please include: Submission to JOM – Special issue on HOM' in the message subject; A brief submission letter in the body of the message; Separate cover page with title, authors' addresses, institutional affiliations, phone numbers, and email addresses; Paper with title and abstract in the first page. Remove authors' names.

Deadline for Submissions: The deadline for submissions is December 31, 2014.

# Socio-Economic Planning Sciences: Special Issue on Location Analysis for Public Sector Decision-Making in Uncertain Times

Guest Editors: Giuseppe Bruno, University of Naples "Federico II", Italy, and Andrea Genovese, University of Sheffield, UK

Socio-Economic Planning Sciences will publish a special issue on recent development in Location Analysis for Public Sector Decision-Making. The goal is to compile state-of-the art research, spanning modeling, theory, empirical studies, application and case studies in this research area. We seek operations research oriented contributions that are rigorously executed, clearly and succinctly written, and innovative relative to what is currently known. In light of the scope of SEPS, all papers must clearly demonstrate the relevance of their contributions with respect to the public sector.

A facility location problem is aimed at finding the best position for a set of facilities within a given region in order to optimize a specific objective function. In the last decades, there have been many applications concerning the location of public-sector facilities (i.e. schools or post offices, emergency services, fire stations, hospitals, ambulances). These models represent a viable decision support tool for institutions that are planning to expand their capacity in a given region and/or market.

This very well established research strand, however, has to take into account the changing and uncertain nature of our times. Indeed, in recent years, due to the global recession and the general interest to reduce costs and improve efficiency, public sector bodies have been more interested in the rationalization of the current position of active facilities (either closing down some of them or re-organizing the overall service supply system). In this context, decisions may depend on various factors such as the nature of the service and the characteristics of the demand.

Considering this context, the special issue will be welcoming papers related to applications and theory of Location Analysis, with a special emphasis on contributions addressing contemporary challenges. All manuscripts should be submitted electronically via the Elsevier Editorial System (EES) <a href="http://ees.elsevier.com/seps">http://ees.elsevier.com/seps</a>. You must select **Location Analysis** as the Article Type to make sure that your paper will be considered for the special issue. The submission deadline is **30 November 2014.** The plan is to publish the special issue in early 2016. Researchers from all relevant disciplines are invited to consider this special issue as an outlet to publish their quality work on this topic of increasing significance. Inquiries on the special issue can be directed to the guest editors (<a href="mailto:giuseppe.bruno@unina.it">giuseppe.bruno@unina.it</a>, <a href="mailto:agenovese@sheffield.ac.uk</a>).

### Socio-Economic Planning Sciences: Special Issue on Social Network Modeling

Guest Editor: Alexander Nikolaev, University at Buffalo, The State University of New York

Social connections serve as channels for information flow and influence propagation, and capture dependencies that affect individual human preferences and judgments, as well as organizational relations and decisions. Operational models, explicitly incorporating network effects, are primed to inform decision-making efforts that target improvements in organizational structure, team effort coordination, marketing strategies, enable management of social support systems, and promote the spread of healthy and environmentally conscious behaviors. This special issue welcomes submissions that work to reveal and interpret social and economic network structure patterns, help evaluate systemic risks, and analyze social programs and policies, through modeling, theory development, empirical research, reviews and case studies.

Below is a sample list of topics common within the scope of this special issue: Modeling collective human behavior (in economics, healthcare and other applications); Identification of high value individuals/hubs and methods for attacking/protecting social support networks, network communications, terrorist networks, etc.; Detection and strategic generation of influence cascades; Network perspectives on team structure and formation of collaborative networks (e.g., research teams, non-governmental organization alliances in daaster response, etc.); Treatment of new variations of resource allocation, and other traditional optimization problem formulations, explicitly incorporating social constraints (e.g., nurse scheduling); Generation and distribution of social capital (e.g., in supply chain management); The impact of social connections on political stability, bureaucracy, and corruption.

The guest editor also welcomes manuscripts that study other topics pertaining to the impact of social connections and communication on decision-making. The special issue will include papers that offer methodological and/or practical insights. We welcome contributions relying on a broad range of quantitative approaches, however, priority will be given to the submissions making original advances in modeling and/or optimization. In light of the scope of SEPS, all papers must clearly demonstrate the public sector relevance of their contributions.

All manuscripts should be submitted electronically via the Elsevier Editorial System (EES) http://ees.elsevier.com/seps. You must select **Social Network Modeling** as the Article Type to make sure that your paper will be considered for the special issue. The submission deadline is **June 30, 2015.** The plan is to publish the special issue in early 2017. Researchers from all relevant disciplines are invited to consider this special issue as an outlet for their work. Contact the guest editor Alexander Nikolaev anikolae@buffalo.edu for inquiries on this special issue.

# IIE Transactions: Focused Issue on Operations Engineering and Analytics: Government, Public Policy, and Society Department

Department Editor: Laura A. McLay, University of Wisconsin-Madison. Associate Editors: Kash Barker, University of Oklahoma; Maria Mayorga, North Carolina State University; Tom Sharkey, Rensselaer Polytechnic Institute

This department intends to publish papers that describe innovative operations research models and methodologies that address problems of societal benefit. This department defines government, public policy, and society broadly but is focused on advanced quantitative and analytical methods to design processes and systems, make better decisions, and solve problems of public concern. The department's scope includes the protection of critical infrastructure; border, maritime, and port security; transportation security; food safety; emergency preparedness and response; humanitarian logistics; evacuation modeling; recovery efforts; public sector and public services operations research; decision making for homeland security; and non-profit and community-based operations research, among other related topics in government, public policy, and society. Papers submitted to this department must clearly motivate the problem's relevance to society and should make substantive and innovative contributions to solving the problem. Papers that describe collaborations and applications of the research and papers that evaluate public policy alternatives are particularly desired.

Authors interested in submitting a paper to this department are encouraged to contact the department editor at lmclay@wisc.edu. For more information about IIE Transactions and the manuscript submission process, visit the journal web site at <a href="http://www.tandfonline.com/toc/uiie20/current">http://www.tandfonline.com/toc/uiie20/current</a>.

### ISCRAM 2015 Conference

The 12th International Conference on Information Systems for Crisis Response & Management will be held 24-27 May, 2015, in Kristiansand, Norway. The theme is "Getting Ready for the Unexpected." The website is: <a href="http://iscram2015.uia.no">http://iscram2015.uia.no</a>.

ISCRAM 2015 has two major deadlines: (1) NOVEMBER 21, 2014 for Long Papers (archival), Panel Proposals, Tutorial Proposals, Workshop Proposals. (2) JANUARY 30, 2015 for Short Papers, Demos, Posters, Doctoral Colloquium. Because of the tight schedule, these deadlines are firm. Please see <a href="http://iscram2015.uia.no">http://iscram2015.uia.no</a> for full calls for each submission venue, including modifications to the Long and Short Papers formats.

Long and short paper tracks include (more details: <a href="http://iscram2015.uia.no/?page\_id=518">http://iscram2015.uia.no/?page\_id=518</a>) Network Theory; Analytical Modelling & Simulation; Planning, Foresight & Risk Analysis; Ethical, Legal & Social Issues; Geospatial Data & Geographical Information Science; Command & Control Studies; Human-Cented Design & Evaluation; Social Media Studies; Community Engagement; Decision Support Systems; Practitioner Cases and Practitioner-Centred Research; Researching Crisis: Methodologies; Serious Gaming; Understanding Collaborative Work Practices... plus an Open Track to field other submissions.

# **About the INFORMS Section on Public Sector Operations Research**

The Section for Public Sector OR, formerly known as the Section for Public Programs, Service, and Needs (SPPSN) is the INFORMS subdivision dedicated to, in the words of the INFORMS slogan, "doing good with good OR." The section furthers the use of operations research and management science in the following areas:

- Public Policy improving governmental decision-making at the legislative and strategic levels.
- Public Programs improving the management of government programs, services and operations.
- *Public Safety* improving decision-making in support of homeland security, law enforcement, emergency preparedness, and disaster response.
- Public Service supporting community development and public service organizations, and encouraging members of the ORMS professions to volunteer their know-how in public service causes.
- Public Needs Improving logistics and other national and international programs to address humanitarian needs.

The section carries out its mission by sponsoring presentations at INFORMS national meetings and providing publicity for ORMS conducted in the public and civic spheres.

Public Sector OR, known then as SPPSN, was formed from a 2009 merger of three efforts devoted to "doing good with good OR". The first was the Public Programs and Processes Section (PPPS), which was the INFORMS section devoted to OR conducted in the areas of public policy, public programs and public safety. The second was an initiative to start an INFORMS forum devoted to community operations research and the third was an initiative to start an INFORMS forum devoted to supporting humanitarian assistance. The three groups, in consultation with the INFORMS Subdivision Council, decided that the best approach was to have a single expanded section that would broadly address ORMS conducted in the public and civic spheres.

Membership is \$10 for INFORMS members, \$15 for non-members, and \$5 for students.

#### 2014 Officers:

- President: Laura McLay, University of Wisconsin-Madison, lmclay@wisc.edu
- President-Elect: **Dionne Aleman**, University of Toronto, aleman@mie.utoronto.ca
- Past President: Ozlem Ergun, Northeastern University
- Secretary/Treasurer: Mariel Lavieri, University of Michigan, lavieri@umich.edu
- Senior Vice President of Programs: **Robert Hampshire**, Carnegie Mellon, hamp@andrew.cmu.edu
- Junior Vice President of Programs: Burcu Balcik, Ozyegin University, burcu.balcik@ozyegin.edu.tr
- Vice President of Communications: Erica Gralla, George Washington University, egralla@gwu.edu
- Cluster Co-Chair, Joost Santos, George Washington University, joost@gwu.edu

## From the editor

I hope you have enjoyed this fall edition of the Public Sector OR newsletter. I would like to invite you to contribute to the next edition, which will be published in the spring. Please share news of achievements, awards, publications, calls for papers, special issues, and relevant conferences. Please also feel free to provide feedback on the content or format of our newsletter and communication from PSOR in general.

Please take advantage of the resources provided on our <u>website</u>, including past issues of the newsletter, upcoming events, links to further information sources such as twitter, and information about our best paper competition. Visit us on twitter at @INFORMS\_PSOR (thanks to Laura McLay for maintaining this).

Feedback on any aspect of the section is always welcome.

Sincerely,

Erica L. Gralla egralla@gwu.edu