THE BRIEFING

The Newsletter of the INFORMS Section on Public Programs, Service, and Needs (SPPSN) Volume 3, No. 1 ● June 2012

Welcome from the President

I am very excited about serving the SPPSN and INFORMS communities this year, along with our broader audiences! I'm sure that you'll agree that the activities that SPPSN members and section have ongoing are quite exciting. This year, I would also like us to see what we (as a section) can do to enable others in the INFORMS community to contribute to areas that are close to the heart of SPPSN around public impact. I look forward to discussing that further with you at our business meeting at INFORMS and to hearing your comments and feedback. Please feel free to contact me at jswann@isye.gatech.edu with your ideas or suggestions.

Julie Swann

SPPSN at the 2012 INFORMS National Meeting

We have been organizing session for the 2012 INFORMS Annual Meeting. Topic coordinators are listed below. Please email the topic coordinator if you have any questions about sessions in that topic or if you want to cross-list a session from another cluster.

Nonprofit supply chains (Gemma Berenquer, gemmabf@gmail.com)

Fire and EMS (Laura McLay, lamclay@vcu.edu)

Community service (Karen Smilowitz, ksmilowitz@northwestern.edu)

Criminal justice (John Hollywood, <u>ishollywood@gmail.com</u>)

Homeland security (John Hollywood, ishollywood@gmail.com)

Voting and elections (Michael Fry, fryml@ucmail.uc.edu and Muer Yang, yangmuer@stthomas.edu)

Global health (Jeremie Gallien, jgallien@london.edu)

Sustainability, energy policy, and the environment (Erin Baker, edbaker@ecs.umass.edu)

Disaster relief and humanitarian logistics (Jessica Heier Stamm, ilhs@k-state.edu)

Health policy (David Hutton, dwhutton@umich.edu)

Make sure to look for our talks at the Annual Meeting on October 14-17, 2012 in Phoenix, AZ.

Keep the following dates in mind:

- August 1 Interactives submission deadline
- August 13 Authors' deadline for final abstract changes
- September 10 Early registration deadline
- September 10 Hotel reservation cut-off date

SPPSN Best Paper Competition

Results from the 1st SPPSN Best Paper Competition 2011: Finalist and awardees

The first SPPSN best paper competition took place in the months leading up to the INFORMS 2011 national conference in Charlotte. There were 15 submissions and five finalists. The awardees were:

First place

Carri W. Chan, Linda V. Green, Yina Lu, Nicole Leahy and Roger Yurt, "Triage of Burn-Injured Patients in a Catastrophic Scenario"

Second place

Muer Yang, Theodore T. Allen, Michael J. Fry and W. David Kelton, "Using Operations Research to Improve Voting Systems"

Finalist

Morgan Doty, Bryce Dykes, Kathleen Hendrix, Ralph Long, Dana Lupuloff, Doug Meagh, Jeffrey Phillips, Julie Swann and Michael Vallecoccia, "Gwinnett County Public Schools: OR/MS Drives Improvements in Bus Logistics"

Jessica L. Heier Stamm, Nicoleta Serban and Julie Swann, "Quantifying and Explaining Access to H1N1 Vaccine"

Awards were presented at the SPPSN business meeting at INFORMS Charlotte. The judging committee was:

- Michael Johnson, University of Massachusetts Boston, SPPSN president and committee chair
- Karen Smilowitz, Northwestern University
- John Hall, National Fire Protection Association
- Vicki Sauter, University of Missouri St. Louis
- Julie Ivy, North Carolina State University

Call for Submissions SPPSN Best Paper award

The INFORMS Section on Public Programs, Services and Needs is sponsoring an award for best paper presented at the INFORMS fall national conference in Phoenix, October 14 – 17, 2012. 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. Participation is open to all INFORMS members, whether students, academics or practitioners. Each submission must be associated with a presentation at the fall national conference. Subject to receiving qualified submissions, one first prize of \$250, one second prize of \$100 and an honorable mention will be awarded at the SPPSN business meeting, to take place at the INFORMS fall 2012 conference.

The submission process consists of the following:

- A nomination letter, not to exceed two pages, explaining the relevance of the paper to SPPSN's
 mission and the paper's significance to research and/or practice, as well as a paper abstract (not to
 exceed 250 words), are due by July 6, 2012.
- Eligible participants will be invited by July 20, 2012 to submit a full paper to the judging committee.

• Final drafts of papers are due on September 7, 2012.

Submission requirements are:

- Papers must be a maximum of 32 pages long, including title, abstract, all text, references, figures and tables.
- Papers must be formatted to one-inch margins on all sides, a font size of at least 10 point, and at least 1.5 line spacing.
- The paper under consideration for this prize shall not have not been published elsewhere.

Details of this award will be posted on the SPPSN website http://www.informs.org/Community/PPSN/Award .

All inquiries about this award should be made to:

Michael P. Johnson SPPSN Past President and chair, Best Paper committee University of Massachusetts Boston michael.johnson@umb.edu 617-287-6967 Julie L. Swann SPPSN President Georgia Institute of Technology julie.swann@isye.gatech.edu 404-385-3054

Journals and Books

Special Issue of Annals of Operations Research

The Annals of Operations Research seeks submissions for a special volume on Policy Analytics. The deadline for submission is 31 October 2012. The full announcement is at http://rutcor.rutgers.edu/POLICY_ANALYTICS.pdf.

The background to the special issue is as follows. The last few decades have seen rapid growth in the capacity of businesses to exploit IT, OR and statistical modelling to collect and process operational and market data in order to support decisions. As a result, business analytics has become a flourishing field for consulting and business education. In contrast, while government decisions are often supported by traditional policy analysis, few government departments and agencies have yet managed to make the systematic use of data, evidence, OR methods and cutting-edge modeling. In this call, we therefore invite papers which apply the methods and ideas of "analytics" to problems arising in the operational management of public services and in policy making.

Submissions could concern policy making or delivery in areas such as healthcare, social or municipal services, national security and border protection, the provision of welfare benefits, the collection of taxation, the protection of the environment or the allocation of natural resources, the administration of the civil or criminal justice system, educational provision, economic regulation, industrial and cultural policy, or any of the other tasks which governments undertake.

This special issue seeks papers presenting both conceptual advances and innovative applications, recognising that public sector applications must balance the need for robust and convincing analysis with legitimate public expectations about transparency and opportunities for participation. Papers may deal with contributions

through different phases of the policy cycle: from issue identification; policy testing and analysis; to policy implementation and evaluation.

Contributions from Decision Theory, Social Choice Theory, Measurement Theory, Welfare Economics, Policy Analysis and related fields are encouraged. Papers which show how recent IT innovations (in social networks, distributed and/or cloud computing, machine learning, knowledge extraction, artificial intelligence, data mining) and operational research methods (problem structuring, multi-criteria decision analysis, optimization techniques, evaluation models) have shaped the broad area of policy analytics are also particularly welcome.

Instructions for authors can be found at: http://www.springer.com/business/operations+research/journal/10479

Journal Announcement: Socio-Economic Planning Sciences

I am writing to invite your submissions to Socio-Economic Planning Sciences, which focuses on the development and use of quantitative methods for tackling decision problems in the public sector. We use the term "public sector" with its widest possible interpretation that includes the sectors where public and private institutions co-exist e.g., healthcare, energy, transportation. All published articles, however, need to establish the relevance of the contribution in the public domain.

The first two issues of this year (Vol. 46) are devoted to disaster planning and public sector facility location, respectively. There are also two more special issues currently being prepared that focus on energy modelling and healthcare modelling. Recently published papers also include works on the environment, education and judiciary sectors as well as performance measurement challenges at the regional and national levels. For more please information and to submit your manuscript see the iournal homepage: http://www.journals.elsevier.com/socio-economic-planning-sciences/

Please do not hesitate to contact me with inquiries concerning the suitability of your paper for the journal.

Best regards, Vedat Verter Editor-in-Chief, Socio-Economic Planning Sciences

New Book

Transforming U.S. Army Supply Chains: Strategies for Management Innovation. Greg H. Parlier, Business Expert Press, New York, 2011, 290 pages.

This text offers a practical approach for understanding the US Army's extremely complex global logistics system, widely acknowledged as one of the largest in the world. The focus is on inventory management policy where prescriptions are illuminated through the prism of an enterprise supply chain analysis. Although Army aviation logistics examples are emphasized throughout, the fundamental issues and potential solutions are broadly applicable to other large-scale military and industrial supply chains as well. Following a summary of recent trends for background and context, a multi-stage conceptual model of the logistics structure is presented to segment and guide the effort. This multi-stage model is used to systematically analyze major organizational components of the supply chain, diagnose structural disorders and prescribe solutions. Integration challenges are addressed using cost-benefit perspectives which incorporate supply chain objectives of efficiency, resilience, and effectiveness. The design and evaluation section proposes an "analytical architecture" consisting of four complementary modeling approaches, collectively referred to as "dynamic strategic logistics planning", to enable a coordinated, enterprise approach for Army Logistics

Transformation. An organizational construct is presented for an "engine for innovation" to accelerate and sustain continual improvement for Army logistics and supply chain management – a "Center for Innovation in Logistics Systems". Finally, strategic management challenges associated with enterprise integration and transformational change are addressed: organizational design; management information and decision support systems; strategic alignment for a learning organization; and workforce considerations including human capital investment needs. The text concludes with a relevant historical vignette and closes with a summary of expected benefits.

The book demonstrates an application of "management innovation as a strategic technology." MIST, for short, is a new concept for transformational change in large-scale, complex, interdependent organizations that compose an extended enterprise. The three conceptual building blocks for MIST include (a) data-driven, operations research—based, decision support systems (also referred to as "business intelligence" or "analytics"); (b) a transformational, rather than incremental, approach to strategic planning that is guided by an "engine for innovation"; and (c) an "integrated" management science to increase the likelihood for successful transformative change by enabling, rather than impeding, organizational implementation. By describing the components of MIST and demonstrating their application to army material enterprise challenges, others will hopefully be encouraged to consider and, where appropriate, adapt and apply MIST to our many other daunting national security challenges. A fourth purpose of the book, then, is to develop an appreciation and understanding of MIST and its emphasis on analytical architectures as a strategic management means for improved performance in our public sector organizations and government institutions.

About the INFORMS Section on Public Programs, Services and Needs

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.

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

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address ORMS conducted in the public and civic spheres.

Membership is \$8 for INFORMS members, \$10 for non-members, and \$5 for students.

2012 Officers:

- *President*: **Julie Swann**, Georgia Institute of Technology, jswann@isye.gatech.edu
- President-Elect: Ozlem Ergun, Georgia Institute of Technology, oergun@isye.gatech.edu
- Secretary/ Treasurer: Dionne Aleman, University of Toronto, aleman@mie.utoronto.ca

- Senior Vice President of Programs: Karen Smilowitz, Northwestern University, ksmilowitz@northwestern.edu
- Junior Vice President of Programs: Jessica Heier-Stamm, Kansas State University, jlhs@k-state.edu
- Vice President of Communications: Laura A.
 McLay, Virginia Commonwealth University, lamclay@vcu.edu

Cluster chairs for the 2012 INFORMS Annual Meeting include **Mariel Lavieri** (lavieri@umich.edu) and **Jessica Heier-Stamm** (jlhs@k-state.edu)

From the editor

Dear SPPSN members.

This newsletter provides an opportunity to share information about news of interest to our members. The newsletter can also be expanded to share the news of member achievements, milestones, awards, publications (particularly those in non-OR journals), calls for papers in journal focus issues, and non-OR conferences of interest to our members. Please share your accomplishments, publications, calls for papers in journal focus issues, and conferences announcements so that we may expand the newsletter. We cannot do this without your help. The newsletter will be available on a semi-annual basis. The next addition of the newsletter will be available in October.



We are at twitter.com/INFORMS SPPSN.

Sincerely,

Laura A. McLay lamclay@vcu.edu