Washington Area Chapter Newsletter

Washington Area Chapter, SCEA

President's Message

David Stem, Chapter President

Well the weather is heating up and the derecho has paralyzed the DC area, taking out the power for millions. But that hasn't stopped the Washington Area Chapter of SCEA from continuing to hold events and continue the work for the chapter!

Our luncheon series has drawn a good audience since January with a wide variety of speakers and topics. First, I'd like to thank Angela Camp and Brian Welsh from Technomics for doing a presentation on Data Normalization and Inflation. Next, we had the pleasure of Mark Greenberg's talk on Minimum-Bias Probability Distributions in April. Steve Oxman from NCCA gave a good overview of different types of software and how it affects the cost estimates of these programs. Finally, in June, Peter Braxton gave a talk on how to better use subject matter experts when performing

risk/uncertainty analysis. A special thanks also goes to Technomics which has provided the venue for all of these talks.

Our training program has continued to provide useful instruction to members with a session offered last March which covered topics critical for the certification exam. Contracts pricing, earned value management, and software estimating were covered so that members could get some one-one-one questions answered in preparation for the exam. I'd like to thank Kevin Cincotta from Technomics for leading the training.

Finally, I have to regretfully inform the membership that Kirsten Schulte, our chapter Secretary, will be leaving to work towards obtaining a MBA at a little-known school in Boston – MIT! We are sad to see her go and I want to thank her for all her hard work keeping

the chapter on track in meetings and publishing this newsletter. Mike Yanavitch from TASC will be taking over her duties as she transitions to be a full-time student. Thanks, Kirsten and welcome aboard, Mike!

What's in this Issue?
In this edition of the newsletter, you can read about more details from the luncheon presentations, a recap of the National SCEA conference, an overview of our training offering, and information on our newest board member. It's not too early to start thinking about Washington Chapter Annual Awards. Typically, we will begin soliciting nominations as the fall approaches. More details will become available via our newsletter, chapter e-mails, and on our website www.washingtonscea.com.

Chapter Activities:

• Monthly Luncheons

• Local Training Opportunities

• Conferences

• Quarterly Newsletter

Coming Soon...

Luncheons
After a short summer break, we are pleased to have a great lineup of luncheon presentations coming up in the next few months. Luncheons are a great chance to network, brush up on what you already know, and learn what you don't! Check your e-mail for the monthly invitations!

Training Events
Be on the lookout for details about another training session in late Summer/early Fall to prepare for upcoming SCEA exams!

Check us out online!
www.washingtonscea.com

SCEA Conference Recap

The Annual SCEA/ISPA joint conference was held last month in Orlando. Each year the conference brings in the best and the brightest in the cost community to host training sessions and present research papers on a variety of topics. This year, there were about 550 attendees, making it the second largest turnout in conference history. The Washington Area Chapter (WAC) was well-represented at the conference, and we even had some members recognized for awards and papers!

National SCEA "Hot Topics"
The SCEA National Board of Directors met before the ISPA/SCEA Conference this past June. Not surprisingly, one of the main topics was the ISPA/SCEA merger into the International Cost Estimating and Analysis Association (ICEAA). Later this summer, the SCEA membership will vote on the Plan of Merger. The Washington Area Chapter (WAC) of SCEA encourages our chapter members to approve this plan so that we may become a stronger organization. If you have specific questions about the merger, feel free to email the chapter board or log onto the National SCEA website for more information.

Another hot topic was the use of web-based teleconferencing services to allow more participation in chapter and national events. As we get information from other chapters that plan to offer this method of participation, we will be sure to pass it along to you. In addition, the WAC is considering how we could

use such a service to benefit our own members.

Finally, WAC suggested that the national awards program include an award specifically for less-experienced analysts. The chapter currently has a Junior Analyst award, but no equivalent at the national level. The award seems to be popular at the chapter level, drawing the most nominations this past year, and could be a good way to encourage participation across skill levels.

Recognized WAC Members
WAC had a very successful showing at the 2012 SCEA/ISPA Joint Annual Conference & Training Workshop, held June 26 – 29 in Orlando, FL. Several chapter members were recognized with SCEA Annual Awards. In addition, 5 of the 8 papers recognized at the conference as best in track were authored or co-authored by WAC members.

Annual Award Winners:

Tom Dauber, Applied Economic Analysis capability lead at Booz Allen Hamilton in Herndon, VA won the SCEA annual award for Contributions in the Field of Management.

Virginia Stouffer, Program Manager/Senior Fellow at the Logistics Management Institute in McLean, VA won the annual award for Technical Achievement.

Kevin Cincotta, Technical Officer at Technomics, Inc. in Arlington, VA won for Contributions in the Field of Education.

Best Paper Winners:

Several WAC members were recognized with Best Paper Awards in their respective tracks.

Robert Nehring, Kammy Mann, and **Robert Jones**, all of Technomics, Inc.

were recognized with Best Overall Paper and Best Paper in the Methods and Models I Track for *Galaxy Charts: The 1,000-Light-Year View of the Data*. This paper applies the principles of visual display of information as advocated by Edward Tufte and others to develop an innovative graphic that will prove invaluable to cost estimators and consumers of their estimates everywhere.

Brian Flynn, Peter Braxton, and **Richard Lee**, of Technomics Inc in Arlington, VA won Best Paper in the Risk Track, along with Paul Garvey of MITRE in Bedford, MA for *Enhanced Scenario-Based Method for Cost Risk Analysis: Theory, Application, and Implementation.* This paper presents Enhanced Scenario-Based Method (eSBM) and illustrates how it promotes realism in estimating future program costs, while offering decision-makers a traceable and defensible basis behind data-derived measures of risk and cost estimate.

Erik Burgess of Burgess Consulting Inc. in McLean, VA won Best Paper in the Management Track for *Modeling R&D Budget Profiles.* This paper discusses the NRO's efforts to implement new accuracy metrics to defend model results, to improve regression methods for incorporating independent variables, and to develop new schedule models for defining start and end dates and a standard process for converting cost to budget.

Zachary Jasnoff of PRICE Systems, LLC in Arlington, VA won Best Paper in the Methods and Models 2 Track for *Will-Cost and Should-Cost Management.* This paper explored concepts, demonstrated via a case study approach, to show how an organization can implement a comprehensive framework for Should-Cost and Will-Cost Management.

Congratulations to all the national award and best paper winners!

WAC SCEA National Award Winners

Kevin Cincotta accepts the national award for Education from Paul Marston at this year's SCEA conference.

Tom Dauber accepts the annual award for contributions in the field of Management.

Virginia Stouffer accepts the national award for Technical Achievement at the SCEA Conference.

Luncheon News

It has been a busy 2012 so far for the Washington Area Chapter of SCEA Luncheon Series despite taking February and March off. Thanks to all who have attended and supported these events. Special thanks go to Technomics, Inc., which has hosted each of the luncheons so far this year. Expect more great luncheon talks throughout the remainder of this year! Luncheons this year have included:

January 2012 Luncheon
The January luncheon featured Ms. Angela Camp and Mr. Brian Welsh of Technomics. They gave a tutorial entitled "Data Normalization and Inflation." Cost estimates are merely extrapolations of actual cost history data modified to reflect the future based on technical and programmatic data collected by the cost analyst. Data provides information on cost trends over a variety of related programs; insight into cost structures; and the information used to develop Cost Estimating Relationships (CERs), parametric estimates, and models. Data provides credibility and defensibility to all estimates. In addition, data, when properly analyzed, allow you to provide assessments of the statistical accuracy and fidelity of an estimate. This session focused on data normalization, touching on the interplay of this process with data analysis and CER development, and the particular normalization technique of escalation, used to adjust for changing price levels (inflation). Raw, weighted, and compound indices were presented. This session covered the Data Normalization subset of Module 04 (Data Collection and Normalization) and the Core Knowledge section of Module 05 (Inflation and Index Numbers) of CEBoK.

April 2012 Luncheon
The April luncheon featured Mr. Marc Greenberg. His talk was entitled "An Elicitation Method to Generate Minimum-Bias Probability Distributions." This paper was presented at the 2011 Joint ISPA/SCEA Conference. As government agencies develop less mature, more advanced and more complex systems, there is an ever-increasing burden on the cost analyst to employ methods of eliciting requirements, schedule, and cost uncertainties from one of more subject matter experts (SMEs). Arguably, the most common technique a cost analyst uses today to elicit such data is to ask each SME for the lowest, most likely, and highest value which, consequently, produces a triangular distribution. Eliciting and using a triangular distribution has its advantages. However, structural limitations inherent to the triangular distribution coupled with the optimistic bias of the SME tend to produce optimistic estimates. This paper proposes an approach that may enhance the SME-elicitation process while, at the same time, provides a means for the cost analyst to employ uncertainty distributions that are best suited for the given type of estimate. The process includes elicitation and mathematical techniques so that the cost analyst can adjust the triangular distribution for SME bias. The paper provides both the twelve-step methodology and a case study on eliciting a triangular distribution of commuting time, and concludes with an approach to transform the "bias adjusted" triangular distribution into a PERTbeta distribution.

May 2012 Luncheon
The May luncheon presentation was given by Mr. Steven Oxman of the Naval Center for Cost Analysis. Steve's presentation was entitled "Different Forms of Software and their impact on Cost Analysis." Automation of devices, platforms, resource planning systems, and business systems all utilize computing machinery and software. Software is written in many computer based languages (e.g., CMS, ULTRA, ADA, C, C++, JAVA, etc.) and written at different computing levels (e.g., machine level, assembler level, high level, RICE, etc.). Software is also written in different forms (e.g., straight code, object oriented code, RICE object code, etc.). In this discussion, we looked at some of the software aspects of language, level, form, and purpose. The goal was to provide cost analysts with additional basic software knowledge and how software attributes affect cost analysis.

June 2012 Luncheon
The June luncheon was provided by Mr. Peter Braxton of Technomics, Inc. Peter presented a talk entitled "Understatement of Risk and Uncertainty by Subject Matter Experts."   This presentation emphasizes understatement of uncertainty, discusses the use of a feedback mechanism and a correction factor to improve inputs, and explores different approaches to combining or "conflating" disparate inputs from multiple SMEs. In much of the literature, experiments were conducted to gauge the degree to which SMEs tend to underestimate uncertainty (the range of possible values). The authors present results from surveys of SMEs and their implications for "training" SMEs by providing feedback on prior assessments and applying correction factors in addition to, or in lieu of, such training. This paper provides a mathematical foundation for the conflation of triangular distributions by showing a variety of methods, which are equivalent and how they compare in general. It reiterates recommendations for best conflation method in the cases of "single reality" and "multiple realities." Together, these results hold the promise to significantly increase the quality and fidelity of expert quantification of risk.

More Luncheon Information
As always, the Washington Area Chapter luncheon series provides a great venue for local speakers and guests. If you have never attended a SCEA luncheon, then I invite you to check it out. Washington Area Chapter members receive monthly invitations in their e-mail in-boxes. If you are not yet a member, or your e-mail address has changed, you can sign up to receive invitations at the chapter website, www.washingtonscea.com, or by contacting your program chair, Tim Anderson, at timothy.p.anderson@aero.org.

Finally, if you would like to give a presentation at an upcoming Washington SCEA luncheon, please contact your program chair. We are always looking for interesting speakers and topics, and this is one of the last "free lunches" available in town!

SCEA National Office

8221 Old Courthouse Rd.
Suite 106
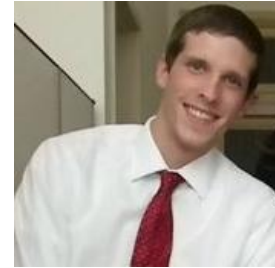Vienna, VA 22182

PHONE:
(703) 938-5090

FAX:
(703) 938-5091

E-MAIL:
scea@sceaonline.org

Welcome Mike Yanavitch!

The board would like to welcome Mike Yanavitch as the new Washington Area Chapter Secretary! He will be replacing Kirsten Schulte as she goes off to school full-time.

Michael Yanavitch is an Operations Research Analyst at TASC, Inc. He graduated from Penn State University with a BS in Economics and is currently pursuing a MS in Systems Engineering from Johns Hopkins. During his time at TASC, he has had the opportunity to support multiple government customers by conducting cost estimates and zero-based reviews as well as developing cost models for future use. As part of his responsibilities, Mr. Yanavitch coordinates TASC's internal Cost Estimating Body of Knowledge (CEBoK) training.

We are confident Mike will be a great addition to the board and we wish Kirsten the best of luck in Boston!

Training Corner

The Washington Area Chapter of SCEA held its most recent training session on March 24th at the Virginia Tech/University of Virginia, Northern Virginia Center in Falls Church, Va. Volunteer trainers Colleen Craig, Ashlin Smith, and Kevin Cincotta covered three modules from SCEA's Cost Estimating Body of Knowledge (CEBoK) to help prepare attendees to take the Certified Cost Estimator/Analyst (CCEA) exam.   The topics covered were Contracts Pricing, Earned Value Management, and Software Estimating. Thanks to Colleen, Ashlin, and Kevin for volunteering to help teach this session!

The chapter plans to hold another training session in August. Watch your inbox for details later this summer! We have been focusing training sessions on helping members prepare to take the CCEA exam. If you would like to see something different, have specific topics you would like covered, or have suggestions, please contact the chapter vice president at vicepresident@washingtonscea.com.

We're on the Web!

See us at:

www.washingtonscea.com

Suggestions?

If you have comments, ideas, or would like to contribute an article to the newsletter, please contact the secretary, Mike Yanavitch, at Secretary@Washingtonscea.com.