

THE STATISTICAL CONSULTANT



Section on Statistical Consulting
Vaneeta Kaur Grover, Editor

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Chair's Column

Dear friends and colleagues,

I am excited to be 2017 Chair of the Section and I want to thank all of you that voted me in. You are a great section to chair and I am here to serve you, the 1608 members, as well as the consulting profession at large. This will be easier to do because we have a great Executive Committee that is already off to a good start. The Executive Committee (EC) members, listed in this newsletter, are dedicated to our profession and motivated to help our members succeed. I look forward to good things this year.



Your Contribution

In this newsletter, I want to talk about 2 things: our initiatives and your contribution. Letting the last be first, one of the things that is always important to the section leadership is to understand what our members want. What can we do to serve you? Roughly 1300 of us pay a small amount in dues to be a member of the section. Why is that? What are you looking for? Even though there have been some great accomplishments over the years, still there are times when the EC doesn't feel like we are doing enough for the section. But we don't know what else we could do. So, the biggest part of your contribution is always, not just this year, to let us know what you would like out of the section. Please contact me or anyone on the EC to share your ideas and wants. If you want to know what we are currently doing, then you can see the EC meeting minutes on the **Section's website** under **Documents > Minutes**.

Our Initiatives

Webinar Series

We have two initiatives from the platform on which I ran. These are a) the Consulting Section Webinar series and b) reaching out to people who do similar work, but are not ASA members. As you know from the recent forum announcement, the webinar series is actually beginning. George Luta from the EC has taken this ball and run with it! Thank you, George. We will have our first webinar in March on Collaboration and the second one in May on being a successful consultant. The statisticians presenting these are very knowledgeable in these areas. They not only have great experience, but also are regular speakers in the topic. We encourage you to expand your skills by participating in the webinar. Please feel free to forward the invitation to colleagues and even others outside of the ASA.

Reaching Out

Ed Jones from the EC is brainstorming with me about the second initiative. Right now we're thinking about creating a Speaker Bureau of some sort. The idea is to offer a list of Consulting Section Members who could speak to groups of people who are not part of the ASA. Maybe it's a local chapter of INFORMS or a Data Science Meetup or a dinner by the Institute of Internal Auditors. Statistics a.k.a. Analytics is getting more popular all the time and, as members of the ASA, we are also tasked with "Promoting the Practice and Profession of Statistics." By giving solid statistical presentations to those outside of our profession, I think we do just that. Of course, this is early and there could be a dozen reasons why we don't pursue this route. However, it seems worth exploring. If anyone has any ideas, information or experience that would be relevant, please contact myself or Ed Jones, Edward.Jones@TAMStatServices.com.

One final thing to say is that this year our mixer at JSM will be held jointly with the SPES and Q&P mixer. With some of us who are members of both, it may work out well. Please join us at JSM in Baltimore for the business meeting and then all of us for the mixer.

Thank you all for being members. Thank you, especially, to those whose contributions make this an important section for our members and for ASA.

Chuck
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Past Chair's Remarks

Dear friends and colleagues,

As 2016 has ended and we have transitioned a new chair, I want to express my thanks to the many people who made the section a success last year. Foremost, I want to thank those who worked to represent our section at the Joint Statistical Meetings and to develop our program. Isabella Ghement did a wonderful job of putting together the program and Dean Johnson organized some excellent roundtables. Thanks as well to Kim, our past program chair, for providing guidance to both of them. Thanks also to Kim also for putting together two editions of the newsletter last year with useful topics for the members of the section.



The section accomplished a long-term goal last year – after several years of development, we finally launched the section's survey on consulting practice. The survey gave us valuable insights into how we can better serve our membership.

I am also very happy that our discussion forum continues to be used by the section to share knowledge and to serve as a sounding board for analysis ideas. I'd like to give special thanks to Chuck for running one of the two "official" discussion threads. I hope that that will be a more frequent feature of the forums in the future.

Finally, I want to thank all the members of the Executive Committee for their work over the year. I will continue to serve on the Executive Committee as past-chair this coming year and look forward to helping Chuck Kincaid accomplish great things for the section.

Chris Holloman

Past Chair

Outgoing Newsletter Editor's update

Dear Members of the Section on Statistical Consulting,

There are some great changes and initiatives taking place behind the scenes in our section, and they are leading to some new opportunities for our members—for example, the section is now offering webinars on topics of interest to statistical collaborators, and we have had some excellent moderated discussion on our forums in the past year. We are continuing to discuss and implement new ways to help our members connect with each other, and to get real value from their membership in the section.



As 2017 kicks into gear, I am excited to be moving into a new role as the section's chair-elect, and looking forward to following in the footsteps of our recent chairs. With that change, I will be ending my time as editor of the newsletter. I am pleased that the newsletter has made progress in the past few years, but it has yet to reach its full potential.

In that spirit, I am very happy to announce that Vaneeta Kaur Grover will be taking over as the new editor of The Statistical Consultant. Please welcome her as she adjusts to her new role, and of course let her know if you have any suggestions or potential contributions to the newsletter (you may email her at vkgrover@yahoo.com, or you can post to our forum using the online interface to share with all of our members). Please feel free to reach out to me as well (kim@krloveqcc.com), and let me know if there is anything I can do for our section members as I continue to serve in my new role.

I will close by saying that I am extremely grateful for all of the opportunities that membership in CNSL has afforded me, and I look forward to contributing to new opportunities in kind.

Sincerely,



Kim Love
2017 CNSL Chair Elect

Highlights from the Conference on Statistical Practice 2017

The Conference on Statistical Practice (CSP) 2017 organized by the American Statistical Association (ASA) in Jacksonville, Florida is now officially over, but the connections we forged and the insights we acquired during the conference will continue to enrich our personal and professional lives for years to come.



This was the first time the conference organized an informal dinner for statistical consultants, where more than 20 aspiring or practicing consultants had a chance to exchange views and experiences and feel like they belong to a community of like-minded colleagues. The dinner was organized by Isabella Ghement and was enjoyed by all who attended. There are preliminary plans to organize a similar dinner at CSP 2018 in Portland, Oregon. If you would like to be kept in the loop about the status of these plans, please reach out to Isabella by email at isabella@ghement.ca.

This was also the first time the conference offered a tutorial dedicated to independent consultants. The tutorial was led by Karen Grace-Martin from The Analysis Factor (<http://TheAnalysisFactor.com>) and was titled "How to Find (the Right) Clients for Your Independent Statistical Consulting Business". Karen is a fabulous teacher who has built a solid statistical consulting and training business over the course of 9 years.

In her tutorial, Karen emphasized that marketing - the process of creating visibility for ourselves and connecting with those who need our services in order to acquire clients - is something we have to do consistently and systematically. No matter how we choose to do this, we should follow a 4-step process: 1) Filling the pipeline, 2) Following up, 3) Getting sales presentations and 4) Closing the sales. As an example, we can join a local R user group, attend the group every month and give occasional presentations with the understanding that some of the people who are there can fill our pipeline. When we talk to these people we can invite them to subscribe to our weekly R tips newsletter, which is part of our follow-up process. We can also collect business cards and invite one group member to coffee each week to tell them what we do - the so-called sales presentation. When a group member indicates a need, we can set up an appointment for a phone call, discuss if and how we can help meet those needs and hopefully close the sale by securing a contract for completing the work. We can also ask group members for referrals. Karen fashioned her tutorial using insights from her own experience as well as information from the following books: "Book Yourself Solid" by Michael Port and "Get Clients Now" by C.J. Hayden. Both books are written specifically for solo consultants and service providers who work one-on-one with clients.

Another interesting event for consultants during the conference was Renita Canady's talk on strategic marketing and communication (renitacanady@gmail.com). In her talk, Renita explained that a lot of us hide from doing the work of connecting with other people (in particular, potential clients) because of a perceived emotional danger. However, the emotional tension that we feel when trying to put ourselves and our ideas out there (e.g., insufficient time, inadequate expertise) is felt in equal measure by our target

audience, so we can use empathy to connect with our audience and its needs. According to Renita, if we are willing to undertake the emotional labour required to create a connection with our target audience, we will be able to create an atmosphere that makes it easier for a potential client to overcome their own resistance to dealing with us. If someone is not responding to our communication and marketing efforts, that does not mean they are rejecting us - it simply means they are not ready to say 'yes' to what we have to offer because we haven't engendered enough trust by developing an emotional connection with that person. To have an emotional connection with someone, we need to have a personal connection. We can achieve this by putting ourselves in our audience's shoes: What keeps them up at night? How can we solve their problems? Why is it important for us to be able to solve their problems?

During her talk, Renita mentioned the book "Pre-Suasion: A Revolutionary Way to Influence and Persuade" by Robert Cialdini as a valuable resource, along with the '7 layers of why'. The latter resource is a technique where Colleen Mangeot (Colleen.Mangeot@cchmc.org), who is both a statistical consultant and a life coach, offered an interesting talk on the psychology of influence, as well as a short course on dealing with difficult people. Colleen started her talk with a bold statement: "To most effectively influence others, we must first learn how to influence ourselves to take action and change our behaviour". She explained that people usually do things either because they want to avoid pain (e.g., fear, frustration, boredom) or gain pleasure (e.g., excitement, calmness, happiness). She also explained that people will do more to avoid pain than they will to gain pleasure. If we are able to understand the pain and pleasure motivating someone, we can more effectively influence them (and that includes ourselves). To illustrate how we can tease out the pain and pleasure inherent to a certain situation, Colleen referred to an example most of us encounter: dealing with a new client for the first time. In that setting, we can ask the client a series of questions that will reveal what is/was painful and what is/was pleasurable for the client: Have you worked with a statistician before? What could have worked better? What is most important to you in working with a consultant? What would it take for you to work with me on this project? What is the one thing you would like to hear from me to get to work with me today? In her closing remarks for her talk, Colleen shared this wise piece of advice: "Don't be afraid to speak to the pain! Show people there is a way out of the pain!" She also recommended reading the book "Awake the giant within" by Tony Robbins.



CSP 2017 hosted several interesting posters presented by statistical consultants, two of which are discussed below.

One of the most popular posters was presented by Kim Love from KR Love Quantitative Consulting and Collaboration (<http://www.krloveqcc.com>). In her poster on Communicating Statistics to Non-Statisticians, Kim encouraged those interested in improving their communication skills to: 1) work on their general communication skills, as providing understandable outcomes to clients and collaborators starts well before statistical results are finalized; 2) use plain language and plain language equations before resorting to mathematical notation; and 3) simplify results, not analyses. To become adept at communicating with non-statisticians, Kim argued that we must be ADEPT. In other words, we must use

Analogies, Diagrams, Examples, Plain language and Technical definitions. Some of the resources mentioned by Kim in her poster include:

- Derr, Janice. *Statistical Consulting: A Guide to Effective Communication*, 1st Ed. Duxbury Press, 1999.
- Zahn, Doug. The Heart of a Statistician's Career: Relationships and Interactions. *AMSTAT News*, September 2009. <http://magazine.amstat.org/blog/2009/09/01/heartofastatcareersept09/>.
- Learn Difficult Concepts with the ADEPT Method. <https://betterexplained.com/articles/adept-method/>.

Eric Vance from LISA (Laboratory for Interdisciplinary Statistical Analysis) at the University of Colorado Boulder presented another popular poster: "Variations in Statistical Practice Between North American Stat Labs." He presented the definition of a stat lab used to identify 191 stat labs in North America (a stat lab is basically an academic statistical or biostatistical consulting center) and then presented results from the 108 stat labs that responded to a 2015 survey. He showed how administrative structure, services, personnel, and training varied between stat labs. The ultimate goal of his ongoing research is to identify and share best practices for running stat labs and create a community of practice among stat lab personnel.

These were just some of the highlights of the CSP 2017 conference. Those of us who have attended the conference for several years know it is a valuable resource for strengthening both our soft and our technical skills and for making friends or meeting collaborators.

Next year's CSP conference will take place in Portland, Oregon on February 15 -17, 2018. The conference website is <https://ww2.amstat.org/meetings/csp/2018/>. If you have never attended the conference, please keep it on your radar - it is the little conference that could and well-worth attending as a participant, short course or tutorial instructor or presenter.

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Member of the CSP 2018 Steering Committee

Farewell to a Respected Colleague and Friend

On Friday November 4, 2016, friends and colleagues of Dr. Todd Nick gathered at Cincinnati Children's Hospital for the *Todd G. Nick Memorial Lecture and Symposium*. The purpose of the Symposium was to honor Todd's life as well as to provide an opportunity to reflect upon his many contributions to pediatric research over the past several decades. Todd had been a leading figure within the American Statistical Association's (ASA) Statistical Consulting Section for more than 20 years.

Varghese George, PhD, Professor and Chair of the Department of Biostatistics and Epidemiology at the Medical College of Georgia at Augusta University served as the keynote speaker for the Symposium. Varghese was the perfect speaker for the occasion in that he was not only Todd's advisor in graduate school at LSU but one of Todd's most respected colleagues and mentors. According to Varghese, "Todd had a contagiously radiant personality. His work



ethic and his unyielding drive for the finish line were truly admirable, but, most of all, Todd had a categorically unwavering passion for living, and an unconditional love for his family.”

A total of 30 friends and colleagues attended the Symposium from many different states, representing academia, government, and industry. Maurizio Macaluso, MD, DrPH, Division Director of Biostatistics and Epidemiology at Cincinnati Children’s opened the afternoon by welcoming everyone and talking about how Todd influenced the initial growth of the division. Stephen Looney, PhD, from the Medical College of Georgia reflected upon his and Todd’s work together reenergizing ASA’s Teaching of Statistics in the Health Sciences Section, while Shannon Saldana, PharmD, from Intermountain Primary Children’s Hospital in Salt Lake City, UT spoke about her and Todd’s work together in *Chance*. Mark Sherer, PhD, from TIRR Memorial Hermann of Houston, TX reflected upon their decades’ long work together in classification algorithms for persons with traumatic brain injuries.

The afternoon also had a strong clinical emphasis as Shasha Bai, PhD, from the University of Arkansas for Medical Sciences talked about Todd’s influential role in her safe sleep research across generations of Arkansas families, while Tanya Froehlich, MD, Greg Myer, PhD, and Cindy Prows, MS, all from Cincinnati Children’s presented their work with Todd in the areas of developmental pediatrics, sports medicine, and genetic medicine. In the words of Walter Ambrosious, PhD, of Wake Forest University, ‘getting to know Todd has been one of the highlights of my career . . . Todd had a gift for explaining statistical concepts that was extraordinary!’ Todd was indeed an accomplished and consummate collaborator, one who made everyone’s research better! He will be greatly missed by all.

Chunyan Liu, Bin Huang, Rick Ittenbach
Cincinnati Children’s Hospital
University of Cincinnati College of Medicine

Headlines and Announcements

Travel award for the best contributed session

“The Leadership Journey for Statisticians” Organized by Gary Sullivan won the \$750 travel award for the best contributed session.

In the last five years, leadership development has been highlighted as an area of strategic importance for the statistics profession (e.g., AmStat News, Feb 2012; ASA Strategic Plan, Nov 2016). Articles, presentations, discussions and training courses/programs have increased in frequency over this time. In August, 2014, the first JSM leadership course was developed and administered, and subsequent courses have been held each year since. This panel will focus on leadership development and its importance for statisticians and for our profession. The panelists will share and/or discuss the following: (1) the importance and state of leadership development in the statistics profession, (2) personal experiences that have shaped their leadership, (3) relevant leadership competencies (including negotiating, networking, organizational/business acumen, and influence), and (4) guidance & motivation for additional leadership development for statisticians in all sectors and stages of their careers. Panelists include:

Nancy Geller, National Institutes of Health
Stacy Lindborg, Biogen
F. DuBois Bowman, Columbia University
Robert Rodriguez, SAS



JSM 2017 Short Course

It gives me great pleasure to announce that the Statistical Consulting Section is co-sponsoring a short course at the 2017 Joint Statistical Meetings. The course, designed by Dr. Matt Jans and Dr. Abhijit Dasgupta is titled, *Research and analysis workflows: Low-cost, every-day project management techniques, tools, and tips that produce high-quality, streamlined, stress-free research and data science*. Provided below is a brief description of the course as well as some information about the course developers. If you would like any further information about the course, please feel free to email Matt (mjans@ucla.edu) or Abhijit (adasgupta@araastat.com).

Research and analysis workflows: Low-cost, every-day project management techniques, tools, and tips that produce high-quality, streamlined, stress-free research and data science

Course Description:

This full-day course assumes you want fewer data collection and analysis mistakes in your work, more efficient and productive meetings, and time and sanity back in your life. This course presents the most useful and generally-applicable tools and techniques culled from the instructors' 30+ combined years of experience in statistics, data science, collaborative biomedical research, consulting, public health, social science, and survey research. It emphasizes simple tools and basic habits that will streamline your research process, whether you are involved in data collection, statistical analysis, or other aspects of the research lifecycle. It focuses on tools that cost little beyond the time and effort it takes to learn and practice them. The first half of the course will include general project and time management techniques. The second half of the course will focus on best practices for your data science pipeline to minimize errors, maximize time to think, and maintain reproducibility. All techniques taught have been tested and adapted by the instructors in their project management work. Students will benefit from the instructors' extensive research and statistical experience. Students will leave with a collection of concrete tools and tips that they can implement immediately.

Course Developers:

Dr. Jans has over 15 years experience conducting surveys and social science research ranging in size and scope. He is Data Quality and Survey Methodology Manager (i.e., Survey Methodologist) for the California Health Interview Survey (CHIS) at the UCLA Center for Health Policy Research. CHIS is the largest single-state health survey in the US. He has worked in smaller contexts (e.g., the Center for Survey Research, UMass Boston) and larger ones, (e.g., US Census Bureau). He has developed mail, phone, and web questionnaires, programmed computerized telephone interviewing (CATI) software and mailing controls databases, conducted many statistical analyses in various software, and was a key member the Census Bureau's Initiative for Operational Efficiency focusing on using paradata to streamline data collection.

Dr. Dasgupta has over 15 years experience as a collaborator and consultant, primarily in areas of biomedical research, including oncology, rheumatology and mental health. He also engages in methodological research at the interface of statistics and machine learning. He is a consultant for the National Institute of Arthritis, Musculoskeletal and Skin Disorder, National Institutes of Health, and also serves on Data Safety Monitoring Boards for the National Institute of Mental Health. He is also co-organizer of the Statistical Programming DC meetup, formerly the R Users Group DC, where he has presented as well as organized presentations from nationally- and internationally-recognized experts in data analysis. He serves on the Board of Data Community DC, a non-profit organization dedicated to sustaining and enhancing the community of data practitioners in the greater DC area, and which currently supports a network of over 15,000 unique members. He has given several workshops on the use of R and Python for data analysis, and was recently invited to give a ASA webinar on Best Practices in Data Analysis.

Dean Johnson
JSM Program Chair

Consulting Section Initiates Mentoring Recognition Award



“What we measure is a clear indication of what we value. The way we measure tells...what we value,” wrote Dr. Paige Fisher (Vancouver Island University) about educational measurement.



With the American Statistical Association's recent initiatives on mentoring, the Section on Statistical Consulting is proud to announce a new Mentoring Recognition Award. Understanding that we should not only measure what we

value, but also should value and reward prolonged, high-level achievements in what we measure, CNSL has established this award to recognize excellence in mentoring and to encourage creativity and sustained commitment to mentoring.

As Ruth Henderson summarized in her recent *Forbes* magazine article “What gets measured gets done. Or does it?”, measurement can lead to goal achievement through prioritization since “measurement increases motivation to perform” and lead to accountability by holding ourselves and others accountable for success in reaching our goals.

Thus, we strongly encourage Section members to nominate other section members – perhaps your own statistical consulting mentor – who have provided mentorship in statistical consulting education, scholarship, and/or practice. The nomination package must be emailed **no later than March 31, 2017** to:

Section on Statistical Consulting Mentoring Award Committee
c/o The American Statistical Association
rick@amstat.org

If you have questions about the award, please contact **Rick Peterson** at rick@amstat.org or (703) 684-1221. For details and nomination form, visit <http://community.amstat.org/cnsl/viewdocument/2017-cnsl-mentoring-award>

Stuart Gansky and Bruce Craig
Committee for Mentoring Award

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Additional Officer Information can be found at [www. 2016–2018 amstat.org/sections/cnsl/officers.cfm](http://www.amstat.org/sections/cnsl/officers.cfm)

Section on Statistical Consulting Microsite

<http://community.amstat.org/CNSL/Home>

You'll find all information relating to the Section on Statistical Consulting, including our charter, officer list, section activities, past issues of The Statistical Consultant, minutes of past meetings, and more.