TEACHING of STATISTICS in the HEALTH SCIENCES

From the Section Chair

Jose-Miguel. Yamal, PhD, The University of Texas 2017 Section Chair



We have a shared commitment to excellent education in the health sciences and to facilitate exchanges of information and resources for those educators. It is my honor to serve as the TSHS chair this year. I am on faculty at the University of Texas Health Science Center, teaching many courses that have a combination of in-person and onscreen (video conferencing) students from several campuses across the state, with a whole set of teaching challenges. I'm glad I found TSHS, a wonderful community to be able to exchange ideas and grow. I soon became involved in the section by presenting a roundtable on Distance Learning Technologies in Introductory Statistics Courses, serving as Program Chair, and now as Chair. There are many ways to

get involved and I invite all of you to reach out to myself or any of the officers!

We currently have 603 members (up from 585 last year, but pretty constant in the past 5 years) with very diverse backgrounds. We want to get to know you and your interests even better, so we have designed a Survey to help focus our future endeavors and really hope to get a good response rate (see the comic below). Our goal is to identify future directions for the section and to identify individuals to lead these efforts.

Our current major activities include sponsoring and organizing sessions at the Joint Statistical Meetings (JSM) 2017 in Baltimore, forming mentoring and promotions committees (to help our members through the tenure and promotion process), the TSHS Portal (for sharing of datasets and teaching resources), and this Newsletter.

The Program Chair, Wenyaw Chan, and Program Chair-Elect, Kendra Schmid, have done a wonderful job in organizing the sessions for JSM this year. We have 24 people presenting in TSHS-sponsored sessions. See details of this year's sessions below in this

newsletter. I would like to thank all of you who contributed a talk, roundtable, or poster! It's already time to start thinking about potential topics for presentations for 2018. Attending our sessions and our mixer are great opportunities for you to approach other TSHS members to discuss ideas and start organizing for next year.

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After JSM, I always feel re-energized in my efforts to continue to innovate and develop my teaching. I hope that you will join me in Baltimore and join a roundtable, contributing to the lively discussions in our sessions, consider becoming a future TSHS officer (a great way to network with other statisticians), and for future JSMs, submitting abstracts for an oral presentation or poster session.

Best, Jose-Miguel

So... What do YOU think?



How do you want to engage with TSHS?

What can TSHS do you help you in your career?

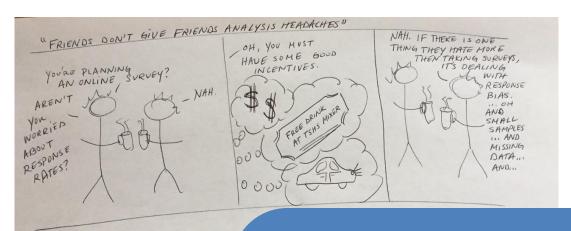
Who do you know that should consider joining TSHS?

How can someone else in TSHS learn from your experience?

We've developed a brief (10 minute) survey to gather information to help in planning Section activities. We really need you to take a few moments of your valuable time to give us this feedback. This will help us better understand the profile of our section members and identify ways to help support your careers. Aggregate results will be shared with the section.

Also, please, please, PLEASE do complete the contact information at the end of the survey. We will be building several distribution lists for various actions out of the survey. We will do our best not to hit you up too often, but we need your information in order to include you at all.

The survey is at https://umn.qualtrics.com/jfe/form/SV_0jojq0fQDd5lkh7



Please submit your survey by May 15

JSM 2017!

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Wenyaw Chan, PhD, The University of Texas 2017 Program Chair



In the coming JSM, we will have one invited session, three topic contributed sessions, one contributed poster session and one regular contributed session. There are three roundtables listed. In addition, we have also cosponsored three invited sessions.



https://ww2.amstat.org/meetings/jsm/2017/

Our invited session title is:

Causal Inference as an Essential Part of the Foundation of Statistical Education

The three topic contributed session titles are:

Teaching Biostatistics Online: a Discussion and Debate of Problems and Solutions
Assessment: An Essential Component of Students' Learning and Educators'
Understanding

Data Science by the Layperson: What Is Our Responsibility?

The three scheduled roundtables are:

Role of Replication Research in Statistics Graduate Education
Promoting Promotion for Statistical Educators
Can there be intersections between 'open data' and 'teaching data' in medical research?

I would like to encourage our members to attend these sessions. If you did not register for a roundtable yet, please do so as soon as possible to ensure its availability.



Wenyaw Chan, Program Chair Kendra Schmid, Program Chair-Elect



Registration and Housing opens 11:00 AM EDT May 1, 2017

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Time to Get Recognized!

Are you eligible for one of the TSHS awards? Do you know someone else who is eligible?

Award nominations are due May 15

Recognition for Education makes it stand out on a CV

The Outstanding Teaching Award recognizes an outstanding statistics educator and mentor in the health sciences.

The Young Investigator Award recognizes a promising "young investigator" for his/her promise as a statistics educator or in conducting statistics education research in the health sciences.

• "Young investigator" is defined as (i) a current graduate student OR (ii) a recent graduate who has received his/her terminal degree no more than 7 years ago and who holds rank below Associate Professor without tenure.

The Distinguished Achievement Award recognizes a Section member who has provided outstanding long-term service to the Section and the ASA

Details can be found at http://community.amstat.org/tshs/awards/awardsoverview

From the Publications Officer

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Ann M. Brearley, PhD, University of Minnesota Publications Officer



The publications officer's traditional report on publications during 2016 can be found at the end of this column. **Thank you** to all of our contributors!

In addition, I would like to remind everyone that, as a **new** service to our membership this year, we have collected and posted the full slides from all of the JSM 2016 presentations that were a part of TSHS-primary-sponsored sessions. These sessions are listed below (using the information from the JSM 2016 Online Program).

To access the presentations, go to http://community.amstat.org/tshs/home and log in with your ASA username and password. Then click the LIBRARY tab at the top. For easier viewing, click on the Folders Icon, and then expand the "JSM 2016 Presentations" folder.

JSM 2016: Monday morning

Biostatistical Literacy: How Best to Teach Medical and Public Health Professionals What They Need to Know About Statistics — Topic Contributed Papers

Organizer(s): Ann M. Brearley, University of Minnesota School of Public Health Chair(s): Jane Monaco, The University of North Carolina Gillings School of Global Public Health

- 10:35 AM The Results of Blended Instruction in Quantitative Methods in Public Health: A Pilot Study Adam Sullivan, Brown University: Marcello Pagano, Harvard
- 10:55 AM Online Introductory Biostatistics for Graduate Students: Successes and Failures

 Teaching a Diverse Student Body Rebecca Andridge, The Ohio State

 University
- 11:15 AM <u>Teaching Biostatistical Literacy: A Flipped-Classroom Approach</u> **Ann M. Brearley, University of Minnesota School of Public Health**
- 11:35 AM Co-Teaching a Research Design Course to Clinicians Amy Laird, Oregon Health & Science University
- 11:55 AM <u>Biostatistics Training of Medical Students Through Their Own Research</u> **Constantine Daskalakis, Thomas Jefferson University**

JSM 2016: Monday afternoon

Motivating and Teaching Advanced Biostatistical Topics — Contributed Papers

- Chair(s): Todd Schwartz, The University of North Carolina at Chapel Hill
 - 2:05 PM Motivated Student Engagement in an Online Biostatistics Course Wei Zhuang, Creighton University
 - 2:20 PM Engaging Undergraduate Health Science Students in Advanced Statistics Darlene Olsen, Norwich University
 - 2:35 PM <u>Didactic Exercises for Teaching Meta-Analysis to Students in the Health Sciences</u>
 Deborah Dawson, University of Iowa

- 2:50 PM An Easy Introduction to Group Sequential Methodology in Clinical Trials Anthiyur Kannappan, Cytel
- 3:05 PM <u>Using Clinical Trials to Better Understand Probability Theory</u> **Michael Proschan**; Pamela A. Shaw, University of Pennsylvania
- 3:20 PM <u>Valar Morghulis: A Survival Analysis of a Song of Ice and Fire</u> **Pierre-Jerome Bergeron, PJB Consulting**; Samuel Archibald, UQAM

JSM 2016: Tuesday afternoon

Journal Clubs as a Teaching Venue for Health Sciences Students — Invited Papers

Organizer(s): Judy-Anne W. Chapman, National Cancer Institute (Retired) Chair(s): Amy Nowacki, Cleveland Clinic

- 2:05 PM Formal Programs Teaching Critical Appraisal in Evidence-Based Medicine Stephen David Simon, University of Missouri Kansas City
- 2:20 PM <u>Transdisciplinary Fellowship Level Journal Club</u> Judy-Anne W. Chapman, National Cancer Institute (Retired)
- 2:35 PM Using a Journal Club to Review and Reinforce Concepts for Medical Researchers
 Brian Healy, Massachusetts General Hospital; Amy Shui, Massachusetts
 General Hospital
- 2:50 PM <u>Journalism in a Journal Club: The Art of Writing About Science</u> **Nancy Pfenning, University of Pittsburgh**
- 3:05 PM The Professional Melting Pot: Statisticians, Data Scientists, and Health
 Researchers Talk Shop to Improve Public Well-Being Nicholas Beyler,
 Mathematica Policy Research; Fei Xing, Mathematica Policy Research
- 3:20 PM **Discussant:** Peter B. Imrey, Cleveland Clinic

JSM 2016: Wednesday morning

The Challenge of Keeping Introductory Biostatistics Interesting and Fun — Topic Contributed Panel

Organizer(s): Harry Norton, Carolinas Medical Center

Chair(s): Robert A. Oster, University of Alabama at Birmingham

8:35 AM The Challenge of Keeping Introductory Biostatistics Interesting and Fun

Panelists: Harry Norton, Carolinas Medical Center George W. Divine, Henry Ford Hospital Sam Michalowski, College of Staten Island

8:55 AM Floor Discussion



REPORT ON TSHS PUBLICATIONS DURING 2016

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The TSHS section-sponsored publications in 2016 are listed below and summarized in Figure 1 below. The median over the time period of 2000-2016 is 7 publications per year.

2016 TSHS newsletter topic articles (0)

These articles may describe teaching methods, consulting methods, or the history of TSHS. None were published this year. (Want to volunteer? Contact Laila Poisson, our (new!) newsletter editor, if you have ideas!)

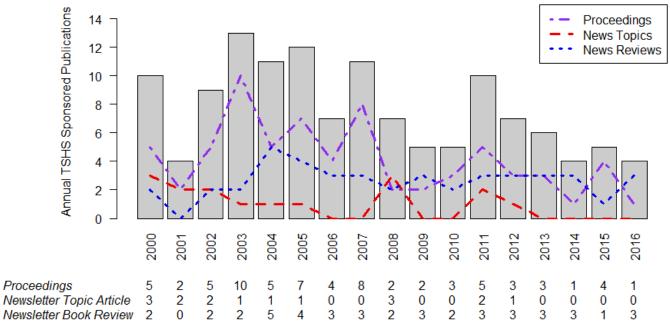
2016 TSHS newsletter book reviews (3)

- 1. Laila Poisson, book review of Werner Vach's "Regression Models as a Tool in Medical Research" (CRC Press, 2012), in the Spring 2016 TSHS newsletter (page 3).
- 2. Laila Poisson, book review of Vittinghoff, Glidden, Shiboski and McCulloch's "Regression Models in Biostatistics: Linear, Logistic, Survival and Repeated Measures Models, 2nd Ed." (Springer, 2012), in the Summer 2016 TSHS newsletter (page 5).
- 3. Laila Poisson, book review of John Fox's "Using the R Commander: A Point-and-Click Interface for R" (CRC Press, 2016), in the Fall 2016 TSHS newsletter (page 6).

2016 papers from TSHS-primary-sponsored sections in the JSM Proceedings (1)

1. Darlene Olsen. 2016. Engaging Undergraduate Health Science Students in Advanced Statistics. In *JSM Proceedings*, Teaching Statistics in the Health Sciences Section. Alexandria, VA: American Statistical Association.

Figure 1. Number of Selected Articles in TSHS-Sponsored Publications from 2000-2016



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Report from the Secretary/ Treasurer

Robert A. Oster, Ph.D. University of Alabama at Birmingham



The TSHS executive committee began to hold monthly conference calls, hereafter referred to as meetings, in November 2016. Following is a brief summary of these meetings to date (mid-March).

<u>November 14, 2016 Topics:</u> the formation of a section Mentoring Committee and a section Promotions Committee; an update from the TSHS Portal Committee, with a note that an Innovation Challenge will be offered in 2017; a discussion about fundraising to supplement the funds that the section receives directly from ASA; and the initial development of a survey of all section members, which would gauge the interest of members in various ongoing and proposed initiatives that will be offered as a benefit of TSHS membership.

<u>December 19, 2016 Topics:</u> an update on the development of the survey of section membership; a current Treasurer's report, which was primarily a summary of the 2017 TSHS budget; and an update on the TSHS JSM 2017 program, which will include an invited session, topic contributed sessions, a contributed paper session, and morning roundtable discussions.

<u>January 23, 2017 Topics:</u> a review of the new and continuing section officers and their specific responsibilities; an update on the TSHS JSM 2017 program; an update on fundraising for the section; and an update on the development of the survey of section membership.

<u>February 20, 2017 Topics:</u> an update on the TSHS JSM 2017 program, with a note that the program is nearly finalized; an update on the section mentoring committee; a comprehensive review and update of the TSHS Portal; TSHS awards that will be offered this year, which include the Distinguished Achievement Award, the Outstanding Teaching Award, and the Young Investigator Award; an update on the survey of section membership; and a discussion about the evolution of the (TSHS) book review to a resource page, which included an assessment of the current book review column in the section newsletter and a description of ideas for the future of the column.

Complete sets of all meeting minutes can be found on the TSHS website, which is http://community.amstat.org/tshs/announcements/executivecommitteebusinessmeetingminutes



Got questions or topics to add to our monthly agenda? Contact Jose-Miguel <u>Jose-Miguel.Yamal@uth.tmc.edu</u>

Section Officers and Officers-Elect for TSHS

Current officers 2017				
Chair	Jose-Miguel Yamal	(713) 500-9566	Jose-Miguel.Yamal@uth.tmc.edu	
Program Chair	Wenyaw Chan	(713) 500-9321	Wenyaw.Chan@uth.tmc.edu	
Secretary-Treasurer 16-17	Bob Oster	(205) 975-0539	roster@uabmc.edu	
Book Review Editor	Laila Poisson	(313) 874-5999	laila.poisson@hfhs.org	
Council of Sections Rep.	Carol Bigelow	(413) 545-1319	cbigelow@schoolph.umass.edu	
Newsletter Editor 17-18	Laila Poisson	(313) 874-5999	laila.poisson@hfhs.org	
Publications Officer 2017	Ann Brearley	(612) 624-4586	Brea0022@umn.edu	
TSHS Portal Rep	Carol Bigelow.	(413) 545-1319	cbigelow@schoolph.umass.edu	
Webmaster 16-17	Ed Gracely	(215) 991-8466	egracely@drexelmed.edu	
Taking full position in 2018				
Chair Elect	Jeff Szychowski	(205) 975-9135	jszychow@uab.edu	
Program Chair Elect	Kendra Schmid	(402) 559-8117	kkschmid@unmc.edu	
Past positions				
Past Chair	Felicity Enders	(507) 538-4970	Enders.Felicity@Mayo.edu	
ASA Staff Liaison	Rick Peterson	(703) 684-1221 x1864	rick@amstat.org	

From the editor:

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Hello Friends! This is my first official newsletter and I'm very excited to have this opportunity to facilitate communication in our section. In each of the three issues we will highlight important news and have a little fun (stay tuned for more from the <u>stick figure world</u> of Dr. Stats). If you've got something that you think should be covered, please let me know. I'd love to have that <u>red-dashed "topics" line</u> be non-zero in the 2017 publication report. The article submission deadline for the Summer issue is June 15. If you've got announcements for JSM, that's the issue to be in.



Between issues, let's chat on the community forum. Or, if you're looking for teaching resources, please check out the TSHS Data Resource Portal (https://www.causeweb.org/tshs/). They have peer reviewed, real data, with associated publication and teaching materials. It makes me giddy just to write that.

In case you missed these, here is one last reminder for three important dates included in this issue: Registration opens for JSM, and for the TSHS roundtables on May 1 (see <u>page 3</u>), Nominations for TSHS awards are due May 15 (see <u>page 4</u>), and the TSHS survey closes on May 15 (see <u>page 2</u>).

Wishing you a great end of the semester and happy spring,

Laila

American Statistical Association TSHS Newsletter Laila M. Poisson, Ph.D. Editor Department of Public Health Sciences Henry Ford Health Systems Detroit, Michigan

American Statistical Association:

http://www.amstat.org/

Section on Teaching Statistics in the Health Sciences

Section web page:

http://community.amstat.org/TSHS/Home/ Links to all newsletters:

http://community.amstat.org/TSHS/Announcements/ Newsletters/