

# TEACHING of STATISTICS in the HEALTH SCIENCES

## Section Chair Elected for 2019



The votes are in. Congratulations to Amy Nowacki, from the Lerner Research Institute at Cleveland Clinic, who was elected to be the TSHS Section Chair for 2019. Amy has been an active member of TSHS for many years. Among her roles, she has served as the JSM program chair in 2016 and she currently helps with the development of the TSHS Resource Portal. We welcome Amy into this new role. Her contact information will be added to the Officers List in January. Until then, she can be reached at: [nowacka@ccf.org](mailto:nowacka@ccf.org).

## Did you know ...

TSHS uses a 3-year chair system. Though each person only serves one year as chair of the section, he or she is actually accepting a three year commitment when elected – chair-elect, chair, and past-chair. This isn't just a fancy way of talking about incoming and outgoing executive members but an opportunity for continuity and development. Paraphrasing from the [TSHS charter](#), here are the roles and responsibilities for these three years:

The **Chair-Elect** is a member of the Executive Committee and supports the chair. With the help of the Chair and Secretary/Treasurer, the Chair-Elect is tasked with preparing the Section budget for his/her year as Chair. Our current Chair-Elect is Jeff Szychowski.

The **Chair** heads the Executive Committee and coordinates the work of the officers and committees of the Section. The chair is responsible for reports on activities and financials. Our current chair is Jose-Miguel Yamal.

The **Past-Chair** continues to serve on the Executive Committee and presides over the Awards Committee and the Committee on Nominations. Our Past-Chair this year is Felicity Enders.

Amy Nowacki joins this progression in January 2018 as the Chair-Elect.

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## See you at JSM 2017

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



At the end of July, at JSM, we will have one invited session, three topic contributed sessions, one contributed poster session and one regular contributed session (**bold**). In addition, we have also co-sponsored three invited sessions and three contributed sessions.



<https://www2.amstat.org/meetings/jsm/2017/>

Day/Time	Place	Type	Session
Sunday 2:00 p.m.	CC-321	Topic Cont. Panel	<b>Teaching Biostatistics Online: a Discussion and Debate of Problems and Solutions</b>
Sunday 2:00 p.m.	CC-348	Cont. Papers	A Cornucopia of Statistics
<b>Monday 10:30 a.m.</b>	<b>CC-Halls A&amp;B</b>	<b>Cont. Posters</b>	<b>Contributed Poster Presentations</b> Monte Carlo Simulation for Longitudinal Studies with Co-Primary Endpoints Parametric and Nonparametric Approaches for Tumor Growth Data Essential Role of Statistics in Publishing Medical Research Papers
Monday 2:00 p.m.	CC-318	Invited Panel	Training Statisticians to Be Effective Instructors
<b>Monday 2:00 p.m.</b>	<b>CC-342</b>	<b>Cont. Papers</b>	<b>Section on Teaching Statistics in the Health Sciences</b> Providing Consulting Experiences Through Role Playing in a Graduate Statistics Course Assessment of Health Sciences Faculty Statistics Knowledge Across the Nursing, Medicine, Pharmacy, and Public Health Disciplines Teaching Statistical Thinking for Healthcare Online Using a 'Flipped Classroom' Approach to Teach Applied Statistics to Nutrition and Biotechnology Students Using Blackboard Learn (TM) and R Pacing Through History: Vignettes to Inform, Refresh and Motivate Redesigning Introduction to Biostatistics
<b>Monday 6:00 p.m.</b>	<b>H-Carroll A</b>	<b>Mixer</b>	<b>Section on Teaching of Statistics in the Health Sciences Business Meeting and Mixer</b>
<b>Tuesday 8:30 a.m.</b>	<b>CC-318</b>	<b>Topic Cont. Panel</b>	<b>Assessment: An Essential Component of Students' Learning and Educators' Understanding</b>
Tuesday 10:30 a.m.	CC-325	SPEED	SPEED: Statistical Education

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Day/Time	Place	Type	Session
Tuesday 2:00 p.m.	CC-349	Invited Paper	Negative Results: They're Essential! Negative Findings in Environmental Epidemiology Big Effects of Negative Results in Big Data Peer Review of Negative Results: Encouraging Rigour and Reproducibility
Tuesday 3:05 p.m.	CC-Halls A&B	SPEED Posters	SPEED: Statistical Education
<b>Wednesday 8:30 a.m.</b>	<b>CC-342</b>	<b>Invited Paper</b>	<b>Causal Inference as an Essential Part of the Foundation of Statistical Education</b> Causal Inference in a Big Data World - The Roadmap Teaching Causality Before Statistics?
Wednesday 10:30 a.m.	CC-341	Invited Paper	Modernizing the Undergraduate Statistics Curriculum
<b>Wednesday 2:00 p.m.</b>	<b>CC-324</b>	<b>Topic Cont. Panel</b>	<b>Data Science by the Layperson: What Is Our Responsibility?</b>

\* **BOLD** text indicates that TSHS is the primary sponsor

Build a personal JSM program [online](#) before you arrive. Find TSHS sponsored programs by using the advanced search option. Select "Section on Teaching of Statistics in the Health Sciences" in the "search by sponsor" drop-down menu.

Search By Sponsor:

Alternatively, each of the session titles above is hyper-linked to its JSM online program page.

## Section on Teaching of Statistics in the Health Sciences Business Meeting and Mixer

Monday July 31 from 6:00-8:00 p.m. 3<sup>rd</sup> Floor Hilton Baltimore in Carroll A



**\*\* Food \*\* Drink tickets \*\* Prizes \*\***

Awards will be presented for Outstanding Teaching and Distinguished Achievement

Meet up with old friends. Bring someone new.  
See YOU there.

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## From the Program-Chair Elect

Kendra Schmid, PhD, University of Nebraska Medical Center  
2018 Program Chair



**Please be sure to check out our roundtables in Baltimore! We have a great list this year!**

Day/Time	Place	Type	Session
Monday 12:30 p.m.	CC- Ballroom II	Lunch	Can There Be Intersections Between 'Open Data' and 'Teaching Data' in Medical Research?
Tuesday 7:00 a.m.	CC- Ballroom II	Breakfast	Role of Replication Research in Statistics Graduate Education
Tuesday 12:30 p.m.	CC- Ballroom II	Lunch	Promoting Promotion for Statistical Educators

Click on the session title to go to the online abstract and add it to your calendar. But don't forget to [register too](#). Roundtables are ticketed events during which you can discuss a topic while sharing a meal; breakfast (\$20/ticket) or lunch (\$45/ticket).

**NOTICE:** Be sure to [register](#) before you arrive. If you wait you risk the table filling up, or worse, the discussion was cancelled due to an assumed lack of interest.

## JSM 2018

July 28 - August 2, Vancouver, British Columbia, Canada



Even though we are not yet up to JSM 2017, it is time to start thinking of 2018! Invited sessions for JSM 2018 will be due in late August or early September and hopefully the sessions you attend in Baltimore will lead to some great ideas for Vancouver! Please feel free to [contact me](#) with ideas or questions.

**Kendra**

**TSHS 2017 Award Winners**[Return to contents](#)**Outstanding Teaching Award: John Gatta**

Northwestern University, Feinberg School of Medicine

Department of Family & Community Medicine

Assistant Professor, Clinician Educator Track

<http://familymedicine.northwestern.edu/faculty/profile.html?xid=16395>

Dr. Gatta has served as the head external evaluator and statistician for a four-year NSF research program to examine the effectiveness of Science, Technology, Engineering and Math (STEM) instructional programs within a community college setting

One student writes:

*"Dr. Gatta is an impressive teacher. You can easily see that teaching is very important to him."... "I can't say that I am even close to mastering statistics but at least now I am not deathly afraid of statistics. Dr. Gatta's class has made me a better physician, researcher, teacher, and mentor."*

**Distinguished Achievement Award: Carol Bigelow**

University of Massachusetts Amherst

School of Public Health and Health Sciences

Research Associate Professor

<https://www.umass.edu/sphhs/person/faculty/carol-bigelow>

Dr. Bigelow has been active in numerous roles in TSHS ever since 2008. Among her many accomplishments, she is a founder of the TSHS Resources Portal (<https://www.causeweb.org/tshs/>).

What others are saying:

*"Carol initially organized and moved forward the TSHS Portal. .... Although still a work in progress, there is now a very helpful product available for health science statistics educators to access. There is also a sub-committee that provides peer-review of materials that are submitted for inclusion into the Portal."*

*"I am certain that TSHS is a stronger section due to Carol's many efforts."*



**From the Publications Officer**[Return to contents](#)

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



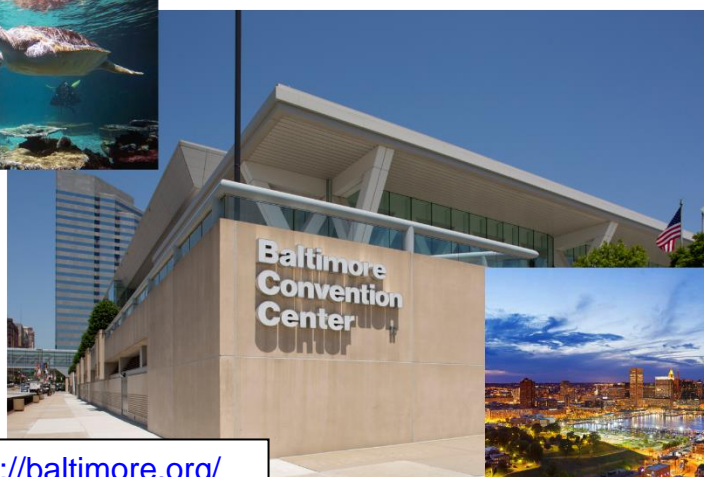
The Joint Statistical Meetings (JSM) in Baltimore are approaching. I look forward to seeing many of you there, especially at the TSHS section's annual section meeting and mixer at JSM: it will be held on Monday July 31, 2017, from 6-8pm in the Baltimore Hilton, Room Carroll A. There will be good food, good company, awards announcements, and even door prizes!

Our TSHS Program Chair, Wenyaw Chan, and Program Chair-Elect, Kendra Schmid, have been busy putting together a great program for JSM, detailed above as well as in the JSM online program on the ASA website at <https://ww2.amstat.org/meetings/jsm/2017/onlineprogram/index.cfm>.

**Need datasets for your fall courses?**

The TSHS section's online Resources Portal has in the last few months published several new datasets for use in teaching in the health sciences. There are now a total of nine datasets in the Portal. Each peer-reviewed posting contains background information about the study, the study dataset itself in multiple formats, a data dictionary, and a citation to where the original study results were published. Check out all of the datasets at <https://www.causeweb.org/tshs/>. If you have datasets from studies that you have been involved with that you would be willing to share with other instructors, please consider publishing them in the TSHS Resources Portal! Submission information can be found at <https://www.causeweb.org/tshs/contributors/>. And if you have other ideas for resources that would be useful for those of us teaching statistics in the health sciences, please let me know.

Hope to see you at JSM!



Photos from: <http://baltimore.org/>

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## Report from the Secretary/ Treasurer

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



Following is a brief summary of the March, April, and June TSHS executive committee meetings (conference calls). Note that no meeting was held in May.

Topics discussed during the **March 20 meeting** included the following: an update on the TSHS JSM 2017 program, which will include one invited session, three topic contributed sessions, one contributed paper session, a few posters, and morning and lunch roundtable discussions; an update from the Portal Committee, during which it was noted that the committee continues to receive submissions that are to be peer reviewed and then posted to the portal; an update on fundraising efforts, which focused primarily on efforts to obtain a sponsor for our section mixer at JSM; a discussion of the results of the pilot testing of the TSHS member survey and plans to fully implement the survey; and an update on nominations for three TSHS awards, which include the Distinguished Achievement Award, the Outstanding Teaching Award, and the Young Investigator Award.

Topics discussed during the **April 17 meeting** included the following: an update from the Promoting Promotions Committee – a new proposed benefit of TSHS membership will be that some senior faculty members who are also TSHS members will offer to assist junior faculty members who are also TSHS members with their promotion packets; an update from the Portal Committee, during which it was noted that there are now 6 datasets available on the Portal; an update on fundraising efforts; an update on the TSHS member survey, which was already sent out, and for which the closing date for responses was May 15; an update on TSHS awards; a discussion about book reviews for the TSHS newsletter, which was then broadened into a discussion of the development of resources that would be potentially helpful to TSHS members and the dissemination of these resources; and an update on JSM 2017 business, which included discussions on sharing (and staffing) an information table with the Statistical Education section, and on any equipment that would be needed for the section business meeting.

Topics discussed during the **June 19 meeting** included the following: an announcement that Amy Nowacki was elected as TSHS Chair-Elect-Elect (Chair-Elect in 2018, Chair in 2019, and Past Chair in 2020); an update on the search for TSHS Program

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 [Jose-Miguel.Yamal@uth.tmc.edu](mailto:Jose-Miguel.Yamal@uth.tmc.edu)



## TSHS Creative Corner

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### “Florence”

lyric © 2017 Lawrence Mark Lesser

*to the tune of Julie Gold’s Grammy-winning song “From a Distance”,  
a #2 hit for Bette Midler during the First Gulf War*

*[[Click here](#) to see the official music video from Bette Midler on YouTube];  
this new lyric honors the approaching bicentennial of the birth of Florence Nightingale,  
adapting her quote: “To understand God’s thoughts, we must study statistics,  
for these are the measure of His purpose.”*

With statistics,  
many soldiers were saved  
in the Crimean War.  
With statistics,  
Florence Nightingale  
found what made the death rate soar.  
With statistics, Florence graphed the data  
in innovative ways:  
A rose diagram, circular histogram,  
a polar area display.

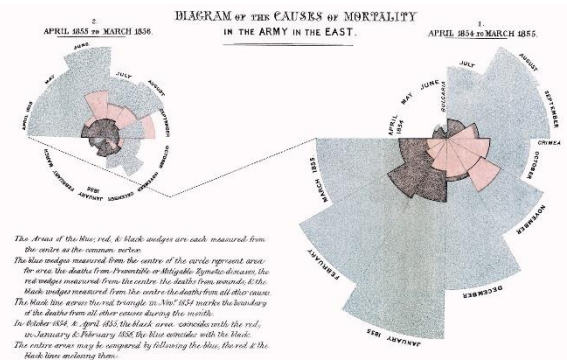
With statistics,  
uncleanliness was found  
to have caused those extra deaths.  
With statistics,  
Florence led reform  
to implement what was best.  
With statistics, she founded modern nursing  
with brilliance and compassion:  
She gave herself to the cause of health,  
she took bold action.

*God is teaching us, God is teaching us,  
God is teaching us through statistics.*

With statistics,  
England and India  
were healthier places to live.  
Oh, statistics  
shone like the lamp  
Florence brought from bed to bed.  
With statistics, she set an example  
of vision and of strength:  
More than pie charts, her mind and heart  
would light and lead the way.



The work of Florence Nightingale represents early efforts of statistics in health sciences. For more on her biography, see [here](#).



Her rose plot helped to summarize and identify causes of death and led to nursing reform. For more on this diagram, see [here](#).  
For her dataset in R, see [here](#).

From the [Timeline of Statistics](#), Florence Nightingale was the first woman to become a member of the RSS and the first overseas member of the ASA.



## Section Officers and Officers-Elect for TSHS

### Current officers 2017

Chair	Jose-Miguel Yamal	(713) 500-9566	<a href="mailto:Jose-Miguel.Yamal@uth.tmc.edu">Jose-Miguel.Yamal@uth.tmc.edu</a>
Program Chair	Wenyaw Chan	(713) 500-9321	<a href="mailto:Wenyaw.Chan@uth.tmc.edu">Wenyaw.Chan@uth.tmc.edu</a>
Secretary-Treasurer 16-17	Bob Oster	(205) 975-0539	<a href="mailto:roster@uabmc.edu">roster@uabmc.edu</a>
Book Review Editor	Laila Poisson	(313) 874-5999	<a href="mailto:laila.poisson@hfhs.org">laila.poisson@hfhs.org</a>
Council of Sections Rep.	Carol Bigelow	(413) 545-1319	<a href="mailto:cbigelow@schoolph.umass.edu">cbigelow@schoolph.umass.edu</a>
Newsletter Editor 17-18	Laila Poisson	(313) 874-5999	<a href="mailto:laila.poisson@hfhs.org">laila.poisson@hfhs.org</a>
Publications Officer 2017	Ann Brearley	(612) 624-4586	<a href="mailto:Brea0022@umn.edu">Brea0022@umn.edu</a>
TSHS Portal Rep	Carol Bigelow	(413) 545-1319	<a href="mailto:cbigelow@schoolph.umass.edu">cbigelow@schoolph.umass.edu</a>
Webmaster 16-17	Ed Gracely	(215) 991-8466	<a href="mailto:egracely@drexelmed.edu">egracely@drexelmed.edu</a>

### Taking full position in 2018

Chair Elect	Jeff Szychowski	(205) 975-9135	<a href="mailto:jszychow@uab.edu">jszychow@uab.edu</a>
Program Chair Elect	Kendra Schmid	(402) 559-8117	<a href="mailto:kkschmid@unmc.edu">kkschmid@unmc.edu</a>

### Past positions

Past Chair	Felicity Enders	(507) 538-4970	<a href="mailto:Enders.Felicity@Mayo.edu">Enders.Felicity@Mayo.edu</a>
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### From the editor:

Happy Summer! As you have undoubtedly noticed, there is a big JSM focus in this issue of the newsletter. The fall newsletter will have pictures and recaps, and the spring newsletter will have teasers for next summer! One might think we are a bit JSM-centric. Maybe we are. It's where we do our big events ([see above](#)). I confess that I was not a JSM attendee until recently. I was "trained" at ENAR, literally and figuratively, and I like the smaller, topic-specific conferences. However, JSM is where I was able to find my teaching people. And, being the one person in the team of statisticians for the hospital who *seeks out* opportunities to teach, I appreciate the opportunity to connect with other people who also get a thrill from helping medical colleagues 'get' statistics.

JSM is not the only place we TSHS folks can gather though. If you filled out the member survey in May you might recall us asking which conferences you prefer to attend. While we'll discuss the survey more in the future, here's a little peek. JSM has the biggest draw (65% of 81 respondents said they go at least sometimes), but there is some mass at ENAR (25%) and USCOTS (14%) too. So, here is my request as newsletter editor. If you attend a conference other than JSM and get a great idea, or give a talk, or just run into another TSHS friend, let me know – maybe share a picture too.

Looking forward to seeing *the majority* of you at JSM. Safe journeys this summer,

Laila

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TSHS Newsletter Editor  
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### 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/>