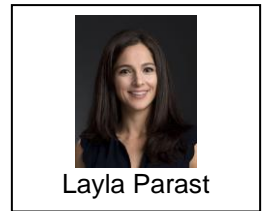


Greetings from HPSS Chair

Layla Parast (parast@austin.utexas.edu)



Dear colleagues and friends,

Welcome to the Summer 2024 issue of the HPSS Newsletter! I hope that your start to the summer has been full of sunshine and relaxation. Here in Texas, we are already at almost 100-degree days and summer thunderstorms, which I love. To me, summer means watermelon, berry pies, swimming, the smell of sunscreen, sunburns (oops), and books. My goal for this summer is to try one new thing a week in Austin with my family – a swimming hole, a museum, a new restaurant or coffee shop, a hiking trail, etc. Now I love teaching, but I have to say that teaching during the fall and spring makes me appreciate the summer even more; there are fewer emails, and more time to read papers, do research, and think about new ideas.

Many of you will likely be traveling this summer, both for fun and to attend conferences. Hopefully, JSM 2024 is on your list, held this year in the beautiful city of Portland, OR. We have a wonderful program prepared thanks to the dedicated work of our Program Chair, Jason Brinkley, and Program Chair-Elect, Fatema Shafie Khorassani. They have prepared HPSS-sponsored events every day of JSM, including a short course on Microsimulation Modeling and Bayesian Model Calibration, and many invited, topic-contributed, and contributed sessions focused on health policy. Don't miss our (off-site) mixer on Monday, August 5, which will be a joint event with the Mental Health Statistics Section, and our lunchtime speaker on Wednesday, August 7, which will feature Dr. Marc Elliott from the RAND Corporation. As always, there are many opportunities to volunteer with HPSS, including serving on committees, reviewing student papers for awards, and participating in the planning and organizing of the next ICHPS meeting, which will be held January 6-8, 2025, in San Diego, CA. Please email me if you are interested in volunteering!

Finally, I would like to congratulate those who were elected in the last ASA election, and those who ran for an elected HPSS position. We welcome Jason Brinkley from Abt Associates as the 2025 HPSS Chair-Elect. Congrats, Jason!

Have a wonderful summer,
Layla Parast
2024 Chair, HPSS

P.S. To learn more about HPSS and its work, check out our past newsletters [here!](#)

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2024 HPSS Executive Committee

Chair: Layla Parast
Chair-Elect: Mousumi Banerjee
Past-Chair: Lisa Lix
Secretary: Kuan Liu
Treasurer: Ted Lystig
Publications: Robert Tumasian III & Beth Ann Griffin
Council of Sections Rep: James O'Malley
Program Chair: Jason Brinkley
Program Chair-Elect: Fatema Shafie Khorassani
ICHPS Co-Chairs: Lane Burgette & Beth Ann Griffin



**JSM 2024
August 3-8
Portland, Oregon**



Jason Brinkley



Fatema Shafie
Khorassani

Program Chair: Jason Brinkley (Jason.Scott.Brinkley@gmail.com)

Program Chair-Elect: Fatema Shafie Khorassani (fshafie@bu.edu)

It is our pleasure to announce a full list of HPSS-sponsored activities including invited and contributed sessions, a short course, student paper competition winners, a lunchtime speaker, and our famous mixer held jointly by HPSS and the Mental Health Statistics Section (MHSS). We hope to see you!

Our 4 HPSS-sponsored Invited Sessions are:

1. Innovations in Measurement and Methods to Empower Health Equity (Sunday, 8/4)
2. Translating Real-World Data into Effective and Equitable Health Care Decisions (Monday, 8/5)
3. Program and Policy Evaluation: The Role of the Statistician (Panel; Tuesday, 8/6)
4. From Clinical Equations to Health Equity: Let Statistics be the Bridge (Thursday, 8/8)

Our 4 HPSS-sponsored Topic-Contributed Sessions are:

1. Extending Statistical Methods to Overcome Study Design Assumption Violations (Sunday, 8/4)
2. Uncharted Methods in Health Equity Research (Monday, 8/5)
3. Recent Advances in Causal Inference in Complex Experimental and Observational Studies (Tuesday, 8/6)
4. Statistical Applications and Methods in Public Health: Highlights from Recent Mental, Reproductive, Maternal, and Adolescent Health Research in Policy Relevance (Wednesday, 8/7)

Our 3 HPSS-sponsored Contributed Sessions are:

1. Health Policy with Real World Data (Monday, 8/5)
2. Causal Effect Estimation (Tuesday, 8/6)
3. Frontiers in Endogeneity, Heterogeneity, and Other Correlated Data (Thursday, 8/8)

HPSS-sponsored Short Course:

1. Microsimulation Modeling and Bayesian Model Calibration (Sunday, 8/4)

We are happy to have Dr. Marc N. Elliot, Senior Principal Researcher and Distinguished Chair in Statistics at RAND Health Care, as our **Lunchtime Speaker** on August 7, 12:30 pm – 1:50 pm, to discuss survey protocols, response rates, and representation of underserved patients.

The **HPSS/MHSS Joint Mixer** will be held on August 5, 6:30 pm – 8:30 pm, at Metropolitan Tavern (1021 NE Grand Avenue #600, Portland, OR 97232) and will include the **HPSS Student Paper Award Ceremony** (winners are listed below on Page 4). Please come join us for fun, food, and socializing!



ICHPS 2025 News

Co-Chairs:

Lane Burgette (burgette@rand.org)

Beth Ann Griffin (bethg@rand.org)



Lane
Burgette



Beth Ann
Griffin

Theme: “Statistical Innovation to Improve Health Equity”

HPSS, together with the ASA, are busy planning the next [International Conference on Health Policy Statistics](#) (ICHPS)! The conference will be held January 6-8, 2025, in sunny San Diego, CA. ICHPS is a smaller meeting (typically 300-350 attendees) that provides an excellent opportunity to get to know a community of statisticians and other professionals working in the health policy and health services arena.

We are happy to share that the conference keynotes will be:

- Prof. Whitney Robinson (Duke University School of Medicine), speaking on her experiences with interdisciplinary teams doing health services and equity research;
- Prof. Sherri Rose (Stanford University), speaking on the challenges of conducting ethical research in the era of big data and AI.

Here are some key highlights for the invited sessions:

- Advancing Fairness in Health Data Analysis
- Promoting Health Equity through Electronic Health Records
- The Overdose Epidemic: Equity Considerations within a Shifting Government
- Maximizing the Reach of Mental Health Interventions through Methodological Advances
- Quantifying Bias in Artificial Intelligence Models in Real-World Health Settings

There will also be a full day of pre-conference workshops, including:

- Submitting an NIH/NIA Clinical Trial
- Analysis of Heterogeneous Treatment Effects
- Introduction to Bayesian Non-Parametrics for Causal Inference
- Embedding Qualitative and Quantitative Methods for Policy Evaluation

Other special programming includes a “Meet-the-Editors” of both applied and methodological journals event and a training on presenting scientific information to lay audiences.

Students – If you have submitted an abstract to ICHPS 2025, please submit your application for a [student travel award](#) by **September 10!** Student attendees will also be invited to a special networking happy hour with other students and more senior leaders in the field.

We are really looking forward to being able to gather to share best practices and community at ICHPS 2025!

Congratulations to the 2024 HPSS Student Paper Awardees!

A big thank you to all the students who participated in the HPSS Student Paper Competition this year, and to the many HPSS members who reviewed the submissions. The 2024 winners are listed below (in alphabetical order by last name):

Na Bo, University of Pennsylvania, “A meta-learner-based framework to analyze treatment heterogeneity in survival outcomes: application to pediatric asthma care under COVID-19 disruption”

Eric Cohn, Harvard University, “Risk Set Matched Difference-in-Differences for the Analysis of Effect Modification in an Observational Study on the Impact of Gun Violence on Health Outcomes”

Anya Helene Fries, Stanford University, “Penalized landmark supermodels (penLM) for dynamic prediction for time-to-event outcomes in high-dimensional data: application to lung cancer mortality prediction integrating multiple data sources”

Gary Hettinger, University of Pennsylvania, “Robust Estimation and Transportation of Causal Effect Curves for Difference-in-Differences Designs”

Ziren Jiang, University of Minnesota, “Enhancing modified treatment policy effect estimation with weighted energy distance”

Events & Meetings Dates

[JSM 2024](#) – Joint Statistical Meetings

Portland, OR. August 3-8, 2024.

[RISW 2024](#) – Regulatory-Industry Statistics Workshop, ASA Biopharmaceutical (BIOP) Section

Rockville, MD. September 25-27, 2024.

[WSDS 2024](#) – Women in Statistics and Data Science

Reston, VA. October 16-18, 2024.

[ICHPS 2025](#) – International Conference on Health Policy Statistics

San Diego, CA. January 6-8, 2025.

[ENAR 2025](#) – International Biometric Society – Eastern North American Region

New Orleans, LA. March 23-26, 2025.

Announcements

We are actively seeking nominations for the **HPSS Mid-Career and Long-Term Achievement Awards**. These awards honor individuals who have made significant contributions to the development of statistical methods or have developed innovative statistical applications for health policy / health services research. Learn more [here](#)!

Please consider getting involved with HPSS and attending ICHPS and JSM (and our mixer)! If you are interested in learning more about HPSS or would like to volunteer, please email Layla Parast (2024 HPSS Chair) at parast@austin.utexas.edu.

We are currently seeking an HPSS Representative to serve on the Coalition for Health AI (CHAI) and a Program Chair-Elect for 2025.

Tackling the Opioid Epidemic: Research and Policy Perspectives

An Interview with Dr. Beth Ann Griffin

By Robert A. Tumasian III (ratumasian@gmail.com)



Robert Tumasian



Beth Ann Griffin

The U.S. faces a growing opioid epidemic that has impacted nearly every family. Over the last few decades, drug overdose deaths from synthetic opioids, including fentanyl, have surged in the U.S. The opioid crisis is multifaceted, requiring collaborations among communities, policymakers, and public health professionals across sectors to fully understand the complexities of addiction, and apply our combined knowledge and expertise to identify and develop effective mitigation strategies. Statisticians play a critical role in providing data-driven insights into this problem and in evaluating potential policy options to curb opioid use. To learn more about the current situation and challenges, and to gain policy perspectives on the issue, we are happy to interview Dr. Beth Ann Griffin, Senior Statistician at the RAND Corporation and Co-Director of the RAND/USC Opioid Policy Tools and Information Center (OPTIC).

Robert: Could you start off by telling us a little bit about yourself and the RAND Corporation? What are some of RAND's goals/visions?

Beth Ann: Yes, I am delighted to speak with HPSS today, and happy to introduce myself and RAND! First, the RAND Corporation is an impactful research organization that develops solutions to public policy challenges with the goal of helping to make communities across the world safer, healthier, and more prosperous. Notably, RAND has about 1,200 researchers working across a vast number of different topics and substantive areas including public health, public policy, education, criminal justice, the environment, and national security.

It is hard to believe that I have worked at RAND for the past 18 years. I love that I have great colleagues and that we are taking on some of the most significant problems that impact the world. At RAND, I also have the privilege of being part of an amazing community (Statistics Group) that has been pivotal to my growth, success, and well-being. My statistical research involves the development and dissemination of methods for estimating causal effects using observational data in various applications including addiction, mental health, rare diseases, military health, and education. Of note, I also currently co-direct OPTIC, whose goal is to foster innovative research, tools, and methods for tackling the opioid epidemic.

Robert: Does RAND offer any opportunities for students or recent graduates who are interested in the organization?

Beth Ann: Yes! We have wonderful opportunities for students and recent graduates who are interested. For current graduate students, we offer a Summer Associate Program that runs for 12 weeks and introduces graduate students to policy, projects, and working at RAND. Typically, a Summer Associate will work on one or two projects during the summer to see how RAND really works. I have worked with several Summer Associates over the past 18 years and find the experience to be rewarding for both the student and the project team. It often results in a peer-reviewed publication or co-authorship on a RAND report chapter. Many Summer Associates end up applying for permanent research positions at RAND. We are also actively hiring recent and rising graduates, with or without a postdoc. As I noted earlier, one of the best parts of my career at RAND has been the Statistics Group. Our group has a commitment to mentoring, and we work hard to grow our new hires and ensure they find meaningful projects and collaborators; we also consult with them on any statistical needs for their projects. Our group is a great place to be for a recent graduate given the priority we place on both mentorship and community.

Robert: What is a typical workday like for you at RAND, and what do you enjoy most about the organization and your job?

Beth Ann: My typical workday can be divided into two general formats. I will have a couple days a week where I keep my calendar free so I can focus on my research. These days will include running analyses for a project, running simulations for a recently developed method, or writing for publications/proposals.

For example, this past month, I have been busy with producing a publication targeting the *Annals of Applied Statistics* with my OPTIC team that uses Bayesian debiased autoregressive models to examine the impact of four policies on opioid-related outcomes. I am very excited about this paper!

My other type of day tends to be “collaboration days,” which include a full day of meetings with my project collaborators or mentees. With my project calls, we use the time to catch up on project needs, challenges, and potential solutions. With my mentees, we use the time to catch up on RAND work, work-life balance, power calculations for proposals, and any other topic that might be of interest to them.

Robert: Before diving a bit deeper into your opioid-related work, could you briefly talk about how you got involved in this area as a statistician?

Beth Ann: Great question! I am relatively new to state policy evaluation methods and applications. The first 10 years of my career at RAND focused on developing and disseminating best statistical practices for addiction researchers. I served as a primary investigator (PI) on four R01 grants funded by the National Institute of Drug Abuse (NIDA), each of which combined novel methodological research with the estimation of causal effects for substance use treatment research for adolescents in observational settings. As part of these efforts, we developed over 20 software tools and tutorials related to the use of the Toolkit for Weighting and Analysis of Nonequivalent Groups (TWANG) package, which uses a nonparametric machine learning algorithm to estimate propensity score weights.

In 2016, I found myself in a lull in funding and reached out to a close collaborator at RAND to inquire if he needed a statistician for his work. That email request led to me joining his research collaborative called the RAND Gun Policy in America Initiative, whose goal is to provide rigorous information around what research can tell us about the effects of gun laws. In that work, we developed and executed a critically needed set of simulation studies to identify optimal methods for evaluating the impact of gun policies and subsequently used the results of the simulation studies to design a series of high-profile studies about different classes of gun control policies and their potential impacts on outcomes. This project led me to start working with my OPTIC co-directors (Bradley Stein and Rosalie Pacula at USC) on efforts to secure funding for OPTIC, where we proposed to expand and reproduce the simulation studies within the opioid context as part of a national center. As you can see, methods from one policy area can often lend themselves well to other emerging topic areas.

Robert: Just to give people a little bit of background on the issue, could you briefly talk about the current state of the opioid epidemic and some of the major issues at hand where statisticians can offer their skills?

Beth Ann: The opioid epidemic is a public health crisis that began in the 1990s. Between 1999 and 2019, nearly 500,000 people died from an overdose involving opioids. The impact can be felt far and wide, with around 40% of adults in the U.S. personally knowing someone who died from an opioid overdose. We are currently in what is called the “fourth wave” of the epidemic with fentanyl and stimulants driving the latest increase in fatal overdoses, likely reflecting the spread of fentanyl and greater drug misuse associated with the increased stress, social isolation, and job loss stemming from the COVID-19 pandemic. It has caused extensive harm and devastation in the U.S. In response, states continue to implement an array of policies meant to combat this poly-substance crisis, producing a policy landscape that is complex and dynamic.

This where statisticians can offer their skills! Unfortunately, obtaining credible estimates of the causal impacts of opioid-related policies is challenging for a variety of reasons. First, the sample sizes are highly constrained in state policy evaluation studies – with at most 50 states in your sample – resulting in a large amount of uncertainty around any estimate. Second, policies do not happen in a vacuum and disentangling the effects of specific policies from other policies is crucial in this setting so policymakers can understand what is and is not working. Finally, the likely effects of many state policies will be small, but even small effects here are important because they will translate into saving thousands of lives.

With so many complexities, this is where statisticians are needed to help provide data-driven insights. Statisticians can work in multidisciplinary teams that include healthcare providers, policymakers, law enforcement, and community organizations. Their expertise in data handling and analysis is crucial for the integrated approach needed to tackle this complicated issue.

Robert: Could you describe some of the work you have done, or are currently doing, related to opioid policy and how you apply statistics in this space?

Beth Ann: We spent the first 5 years of OPTIC testing and refining simulation methodologies to assess the relative performance of different statistical methods and providing critically needed information to the field on best practices for estimating the overall average effects of opioid policies. We published papers describing key findings from our simulation studies related to three different cases: no confounding, co-occurring policies, and confounding. We believe findings from our simulations can help researchers identify which models provide the most accurate estimates of state-level policy effects in the presence of concurrent policy implementation and confounding between enacting and non-enacting states. We also developed an R library called '*optic*' that can be used to run all of our simulations on any repeated measures data. This valuable resource enables researchers to routinely perform similar simulations when beginning to work with a new outcome series. In general, I love creating R packages for any new method as well as ensuring those packages have user-friendly tutorials to go along with them. I believe such efforts as statisticians are critical to ensure reproducibility and a broad uptake of new methods, which is an important part of our role as statisticians in this world.

We have also written several publications that provide guidance for researchers on the proposed potential solutions for common challenges in opioid and other state policy evaluations, and developed new methods to address several of these challenges. I lead this third project together with fabulous collaborators from inside and outside of RAND, including Liz Stuart from Hopkins who is a member of HPSS (shout out to Liz!).

It was a busy 5 years and we just recently secured funding for an additional 5-year period. The next five years will be focused on understanding how to best estimate policy effect heterogeneity. Currently, statistical methods for policy evaluation generally estimate overall average effects and do not consider effect heterogeneity. Methodological work is critically needed to identify optimal approaches to identify and characterize effect variation both within and across states.

Robert: What have been the broader implications of your work in this area? Have you engaged with any policymakers and if so, how did you successfully convey your statistical findings to a non-statistical audience?

Beth Ann: One of OPTIC's core aims is the dissemination of our tools, methods, and findings to communities of interest to ensure uptake of more robust methods and more accurate findings around the effectiveness of different policies. As part of this effort, OPTIC team members have formally spoken with multiple individuals and decision-maker groups from government agencies or elected officials and their staff. Additionally, OPTIC team members meet regularly with Advisory Board Members from the National Governors' Association and the National Conference of State Legislatures, and RAND's legislative analyst and congressional liaison for ongoing discussions of top legislative priorities. This type of engagement is critical to ensuring that our efforts align with the interests and needs of policymakers.

We also recently published a pragmatic guide to help decision-makers determine how much they can trust the results of a health policy evaluation. The guide, lead by Megan Schuler at RAND, offers a few rules of thumb to identify policy evaluations that provide strong evidence about whether there is a cause-and-effect relationship between a policy and an outcome. The guide also highlights some red flags indicating that a study's findings should be viewed with caution. The exercise of being involved in this effort taught me a lot about the challenges behind ensuring that we communicate to non-statisticians in

non-technical language, and the positive reception by policymakers and their staff has highlighted the deep need for such efforts as statisticians.

The other product I feel is useful for any work we do under OPTIC is that we develop Key Takeaways which are OPTIC-created, one-page summaries of published opioid research findings tailored for policymakers. We supply these to our legislative partners for distribution, use relevant ones in our conversations with policymakers, and also post them to our website to increase their accessibility. Of note, OPTIC has been vital to our successful dissemination efforts and research from it was recently highlighted by the White House as well as John Oliver on his May 12 show devoted to Opioid Settlements, which was all very exciting!

Robert: How do you think statisticians can be the most useful as we continue to confront the opioid crisis?

Beth Ann: We as statisticians can be incredibly valuable in addressing the opioid crisis in several ways. First, we can analyze existing surveillance data to identify state and nation-wide patterns and trends in opioid use and overdose rates. This type of work helps us to understand the scope and scale of the crisis. We can also develop models to predict future trends and identify areas at highest risk. Second, we can work to help the field by both designing and analyzing the effectiveness of interventions aimed at reducing opioid misuse, including the evaluation of state and local policies. This work requires strong collaboration between communities, policymakers, and interdisciplinary public health professionals across all sectors to better understand the pool of evidence. Third, we can play a vital role in assisting state and local governments on how to best distribute opioid settlement funds by developing and utilizing methods that can identify the most impacted areas and suggesting where intervention efforts should be concentrated. Opioid settlements with pharmaceutical companies have already occurred, and there are more to come. Settlement funds could save lives and mitigate lifelong harms from opioid misuse if they are allocated appropriately to the most effective interventions. Through these roles, we can provide crucial insights and tools that help in understanding and combating the opioid crisis effectively.

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