

Jacob M Schauer

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Education

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| 2018 | Ph.D., Statistics, Northwestern University, Evanston, Illinois, United States |
| 2007 | B.S., Mathematics, English, Western Michigan University, Kalamazoo, Michigan, United States |

Postgraduate Training

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| Jan 2019 - Aug 2020 | Postdoctoral Fellow, Statistical Methodology, Institute for Policy Research, Evanston, Illinois, United States,
Description:

As a postdoctoral fellow, I derived statistical methods for evaluating the replicability of scientific evidence used in policymaking. Additional responsibilities included teaching undergraduate statistics and data science courses. |
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Academic Appointments

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| Sep 2020 - Present | Assistant Professor, Northwestern University |
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Honors and Awards

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| Jul 2021 | Early Career Award, ACTStat,

The Association for Clinical and Translational Statisticians (ACTStat) bestows awards for excellence in clinical or methodological statistical research from early-career researchers. Dr. Schauer was recognized for contributions to the statistics of designing and analyzing replication studies. |
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Internal Institutional Service

Oct 2020 - Present	Member, MS Admissions Committee, Feinberg School of Medicine
	Member, MS Program Admissions Committee, Feinberg School of Medicine
Jan 2021 - Present	Chair, Biostatistics Journal Club, Feinberg School of Medicine
	Member, Biostatistics Onboarding Working Group, Feinberg School of Medicine
	Member, Biostatistics PhD Working Group, Feinberg School of Medicine

Professional Society Membership

Nov 2020 - Present	Member, American Statistical Association, Description: The American Statistical Association is the world's largest community of statisticians, the "Big Tent for Statistics." It is the second-oldest, continuously operating professional association in the country. Since it was founded in Boston in 1839, the ASA has supported excellence in the development, application, and dissemination of statistical science through meetings, publications, membership services, education, accreditation, and advocacy.
Apr 2021 - Present	Member, Association of Clinical and Translational Statisticians, Description: The Association of Clinical and Translational Statisticians encourages the interaction and exchange of ideas among its members to enhance the design, implementation, and analysis of clinical and translational studies. The Association encourages optimal experimental/study design and data analysis plans, fosters the establishment of appropriate methodological standards, and serves as an advocate for its members.

Manuscript Review Responsibilities

Jan 2018 - Present	Ad Hoc Reviewer, <i>Journal of Educational and Behavioral Statistics</i>
Jan 2019 - Present	Ad Hoc Reviewer, <i>Research Synthesis Methods</i>
	Ad Hoc Reviewer, <i>PLoS One</i>

Jan 2020 - Present	Ad Hoc Reviewer, <i>Alcohol and Alcoholism</i>
	Ad Hoc Reviewer, <i>Personality and Social Psychology</i>
	Ad Hoc Reviewer, <i>Journal of General Internal Medicine</i>
Mar 2020 - Present	Ad Hoc Reviewer, <i>Multivariate Behavioral Research</i>
May 2020 - Present	Ad Hoc Reviewer, <i>Health Informatics Journal</i>
Mar 2021 - Present	Ad Hoc Reviewer, <i>Survey of Ophthalmology</i>
May 2021 - Present	Ad Hoc Reviewer, <i>Science</i>

Grant Review Responsibilities

Oct 2020 - Present	Ad Hoc Grant Reviewer, Institute of Education Sciences, Systematic Replication Description: The committee meets annually to evaluate grant proposals to the Institute of Education Sciences' Systematic Replication competition. Proposals seek to conduct high quality replications of existing education interventions.
Aug 2021 - Present	Ad Hoc Grant Reviewer, Institute of Education Sciences, Research Methods Description: The committee meets annually to evaluate grant proposals submitted to the Institute of Education Sciences' Research Methods competition. Grant proposals involve developing novel research tools and statistical methodology relevant for multi-site and cluster-randomized experiments, systematic reviews, and observational studies.

Grant Proposals Submitted

No activities entered.

Grants and Sponsored Awards

Sponsor or Organization: Department of Health and Human Services, National Institutes of Health, National Institute of Diabetes, Digestive and Kidney Diseases
Grant or Contract ID (if applicable): 1R01DK129843-01
Project Title: EAT: A Reliable Eating Assessment Technology for Free-living Individuals.
Principal Investigator Name: Nabil Alshurafa
Funding Mechanism: R01 Research Project (Traditional)

Direct costs for project: \$2,225,577
Total costs for project duration: \$3,315,275
Role: Co-Investigator
Start Month: August 2021
End Month: July 2026
Percent Effort: 10
Project Status: Current

Sponsor or Organization: Department of Health and Human Services, Agency for Healthcare Research and Quality
Grant or Contract ID (if applicable): 5R01HS027426-02
Project Title: A Cluster-Randomized Trial of the Northwestern Embedded Emergency Department Physical Therapy (NEED-PT) Protocol for Acute Low Back Pain
Principal Investigator Name: Howard Kim
Funding Mechanism: R01 Research Project (Traditional)
Direct costs for project: \$1,163,858
Total costs for project duration: \$1,856,189
Role: Co-Investigator
Start Month: September 2020
End Month: July 2025
Percent Effort: 10
Project Status: Current

Funding Source Type: External
Sponsor or Organization: NIH/NIDDK
Grant or Contract ID (if applicable): DK117824
Project Title: Disordered Tissue Biomechanics as a Driver of Esophageal Disease
Principal Investigator Name: Pandolfino, John Erik
Funding Mechanism: P01 Research Program Project Grant
Role: Co-Investigator
Start Month: July 2018
End Month: June 2023
Percent Effort: 10
Project Status: Current

Sponsor or Organization: Department of Health and Human Services, National Institutes of Health, National Institute of Neurological Disorders and Stroke
Grant or Contract ID (if applicable): 1R21NS123871-01
Project Title: Neurological consequences of COVID-19 during the early recovery period: Imaging Analysis of the Blood Brain Barrier and Neurovascular Alterations
Principal Investigator Name: Ann Ragin
Funding Mechanism: R21 Exploratory/Developmental Grants
Direct costs for project: \$275,000
Total costs for project duration: \$439,694
Role: Co-Investigator
Start Month: August 2021
End Month: January 2023

Percent Effort: 5
Project Status: Current

Funding Source Type: External

Sponsor or Organization: NIH/NINDS
Project Title: The Role of Aortic-Carotid Hemodynamics and Aberrant Flow in HIV Cerebral Injury
Principal Investigator Name: Ragin, Ann B
Funding Mechanism: R21 Exploratory/Developmental Grant
Total costs for project duration: 437,500
Role: Co-Investigator
Start Month: September 2020
End Month: August 2022
Percent Effort: 10
Project Status: Current

Funding Source Type: External

Sponsor or Organization: Yidan Prize Foundation
Project Title: Promoting Best Practices in the Synthesis in Educational Research
Principal Investigator Name: Hedges, Larry Vernon
Role: Research Fellow
Start Month: April 2019
End Month: March 2022
Percent Effort: 15
Project Status: Current

Funding Source Type: External

Sponsor or Organization: NIMHHD
Grant or Contract ID (if applicable): 610-5256000-60050270-01
Project Title: Effectiveness and Implementation of a Mindfulness Intervention for Depressive Symptoms Among Low-Income, Racial/Ethnic Minority Adults in a Federally Qualified Health Center
Principal Investigator Name: Inger Burnett-Zeigler
Funding Mechanism: R01 Research Project Grant
Role: Co-Investigator
Start Month: May 2021
End Month: Ongoing
Percent Effort: 10
Project Status: Current

Funding Source Type: External

Sponsor or Organization: NIAID
Grant or Contract ID (if applicable): 610-5264000-60058769-01
Project Title: Effectiveness of Relationship Education for Reducing HIV Incidence in Men Who Have Sex with Men
Principal Investigator Name: Michael Newcomb
Funding Mechanism: U01 Research Project Cooperative Agreement
Role: Co-Investigator
Start Month: June 2021

End Month: Ongoing
Percent Effort: 10
Project Status: Current

Invited Talks

- Jul 2021 *Design and analysis of replication studies: Considerations and pitfalls*,
ACTStat Annual Meeting 2021,

[Activity Scope: International]
- Statistical challenges for studying replication*, International Conference on
Statistics: Theory and Applications,

[Activity Scope: International]
- Oct 2021 *Missing Covariates in Meta-Regression: Considerations and Implications*,
AERA Systematic Review and Meta-Analysis SIG,

[Activity Scope: International]
- Nov 2021 *The Statistics of Replication: Considerations and Pitfalls*, Loyola University
Chicago, Department of Mathematics and Data Science,

[Activity Scope: University / Health System]
- Mar 2022 *Evaluating Replicability: Considerations for Analyses and Implications for
Design*, MSRI Hot Topics: Foundations of Stable, Generalizable and
Transferable Statistical Learning

[Activity Scope: International]

Publications and Scholarly Works

Journal Articles

Completed/Published

Peer-reviewed Original Investigations

1. Kou W, Carlson DA, Baumann AJ, Donnan EN, Schauer JM, Etemadi M, Pandolfino JE. A multi-stage machine learning model for diagnosis of esophageal manometry. *Artif Intell Med* 2022 Feb;124:102233–. [PMCID: PMC8817064] [PMID: 35115131, 35115131]
2. Schauer JM, Diaz K, Pigott TD, Lee J. Exploratory Analyses for Missing Data in Meta-Analyses and Meta-Regression: A Tutorial. *Alcohol Alcohol* 2022 Jan;57(1):35–46. [PMID: 33550367, 33550367]

3. Kou W, Carlson DA, Baumann AJ, Donnan EN, Schauer JM, Etemadi M, Pandolfino J. A multi-stage machine learning model for diagnosis of esophageal manometry. *Artificial Intelligence in Medicine* 2021 Dec;
4. Carlson DA, Shehata C, Gonsalves N, Hirano I, Peterson S, Prescott J, Farina DA, Schauer JM, Kou W, Kahrilas P, Pandolfino J. Esophageal Dysmotility Is Associated With Disease Severity in Eosinophilic Esophagitis. *Clin Gastroenterol Hepatol* 2021 Nov; [PMID: 34768010]
5. Carlson DA, Shehata C, Gonsalves N, Hirano I, Peterson S, Prescott J, Farina DA, Schauer JM, Kou W, Kahrilas PJ, Pandolfino JE. Esophageal Dysmotility Is Associated With Disease Severity in Eosinophilic Esophagitis. *Clin Gastroenterol Hepatol* 2021 Nov; [PMID: 34768010, 34768010]
6. Carlson DA, Baumann AJ, Prescott JE, Schauer JM, Krause A, Donnan EN, Kou W, Kahrilas PJ, Pandolfino JE. Prediction of Esophageal Retention: A Study Comparing High-Resolution Manometry and Functional Luminal Imaging Probe Panometry. *Am J Gastroenterol* 2021 Oct;116(10):2032–2041. [PMCID: PMC8852837] [PMID: 34388142, 34388142]
7. Carlson DA, Prescott JE, Baumann AJ, Schauer JM, Krause A, Donnan EN, Kou W, Kahrilas PJ, Pandolfino JE. Validation of Clinically Relevant Thresholds of Esophagogastric Junction Obstruction Using FLIP Panometry. *Clin Gastroenterol Hepatol* 2021 Jun; [PMCID: PMC8716679] [PMID: 34216821, 34216821]
8. Hedges LV, Schauer JM. The design of replication studies. *Journal of The Royal Statistical Society Series A: Statistics in Society* 2021 Mar;184(3):868–886.
9. Schauer JM, Hedges LV. Reconsidering statistical methods for assessing replication. *Psychol Methods* 2021 Feb;26(1):127–139. [PMID: 33617275, 33617275]
10. Schauer JM, Fitzgerald KG, Peko-Spicer S, Whalen MC, Zejnullahi R, Hedges LV. An evaluation of statistical methods for aggregate patterns of replication failure. *Annals of Applied Statistics* 2021 Jan;15(1):208–229.
11. Schauer JM, Kuyper AM, Hedberg EC, Hedges LV. The Effects of Microsuppression on State Education Data Quality. *Journal of Research on Educational Effectiveness* 2020 Sep;13(4):794–815.
12. Schauer JM, Hedges LV. Assessing heterogeneity and power in replications of psychological experiments. *Psychol Bull* 2020 Aug;146(8):701–719. [PMID: 32271029, 32271029]
13. Hedges LV, Schauer JM. Statistical analyses for studying replication: Meta-analytic perspectives. *Psychol Methods* 2019 Oct;24(5):557–570. [PMID: 30070547, 30070547]
14. Hedges LV, Schauer JM. More Than One Replication Study Is Needed for Unambiguous Tests of Replication. *Journal of Educational and Behavioral Statistics* 2019 Oct;44(5):543–570.

15. Hedges LV, Schauer JM. Consistency of effects is important in replication: Rejoinder to Mathur and VanderWeele (2019). *Psychol Methods* 2019 Oct;24(5):576–577. [PMID: 31580142, 31580142]
16. Hedges L, Schauer J. Randomised trials in education in the USA. *Educational Research* 2018 Jan;60(3):265–275.

Mentoring

- Maxwell Shramuk (2021–present), MS in Biostatistics