

# Jacob M. Schauer

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## EDUCATION

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**Ph.D. in Statistics**, December 2018

Northwestern University, Evanston, IL

Dissertation: Statistical methods for assessing replication: A meta-analytic framework

Advisor: Larry V. Hedges, Ph.D.

**B.S. in Mathematics & English**, May 2007

Western Michigan University, Kalamazoo, MI

## FELLOWSHIPS AND HONORS

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National Science Foundation Postdoctoral Fellowship: Grant No. 1841075 (Sep. 2018 – present)

Northwestern University Fellowship (Sep. 2013 – Aug. 2014, Sep. 2017 – Aug. 2018)

Multidisciplinary Program for Education Studies (MPES):

U.S. Institute for Education Sciences Doctoral Training Grant No. R305B140042 (Sep. 2014 – Aug. 2017)

Medallion Scholarship (Sep. 2003 – June 2007)

Undergraduate Awards Grant (July – Sep. 2005)

## PUBLICATIONS

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Schauer, J. M. and Hedges, L. V. (in press). Reconsidering statistical methods for assessing replication. *Psychological Methods*.

Schauer, J. M. and Hedges, L. V. (in press). Assessing heterogeneity and power in replications of psychological experiments. *Psychological Bulletin*.

Hedges, L. V. and Schauer, J. M. (2019). [Statistical analyses for studying replication: Meta-analytic perspectives](#). *Psychological Methods*, 25(4), 557–570.

Hedges, L. V. and Schauer, J. M. (2019). [Consistency of effects is important in replication](#). *Psychological Methods*, 25(4), 576–577.

Hedges, L. V. and Schauer, J. M. (2019). [More than one replication study is needed for unambiguous tests of replication](#). *Journal of Educational and Behavioral Statistics*, 44, 5, 543–570.

Hedges, L. V. and Schauer, J. M. (2018). [Randomized trials in education in the USA](#). *Journal of Education Research*, 60(3), 265–275.

## CONFERENCE PRESENTATIONS

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Assessing replication: Lessons from empirical research and applied statistics. Paper presented at the Joint Statistical Meetings. Denver, CO, August 2019.

Challenges for imputing missing covariates in a meta-regression. Paper presented at the Society for Research Synthesis Methods. Chicago, IL, July 2019.

Assessing replication: Lessons for education science. Paper presented at the Spring Meeting of the Society for Research on Educational Effectiveness. Washington, DC, March 2019.

Suspect research and statistical inference. Paper presented at the Spring Meeting of the Society for Research on Educational Effectiveness. Washington, DC, March 2018.

Replication in education science. Poster presented at the Spring Meeting of the Society for Research on Educational Effectiveness. Washington, DC, March 2018.

## PAPERS UNDER REVIEW

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Hedges, L. V. and **Schauer, J. M.** (under review). The design of replication studies. *Journal of the Royal Statistical Society: Series A*.

**Schauer, J. M.**, Diaz, K., and Pigott, T. D. (under review). Tools for exploring and diagnosing missing data a meta-analysis: A tutorial.

**Schauer, J. M.**, Fitzgerald, K. G., Peko-Spicer, S., Whalen, M. C. R., Zejnullahi, R., and Hedges, L. V. (under review). An evaluation of statistical methods for aggregate patterns of replication failure. *Annals of Applied Statistics*.

**Schauer, J. M.**, Kuyper, A. M., Hedberg, E. C., Feinis, F., and Hedges, L. V. (under review). The effects of microsuppression on state education data quality. *Journal of Research on Educational Effectiveness*.

## UNPUBLISHED PAPERS

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**Schauer, J. M.** (in preparation). Design and analysis of conceptual replication studies.

**Schauer, J. M.** (in preparation). Compatible imputations for covariates in meta-regression.

**Schauer, J. M.** (in preparation). On the accuracy of replication failure rates.

**Schauer, J. M.**, Diaz, K., Lee, J., and Pigott, T. D. (in preparation). On the bias of complete- and available-case meta-regressions with missing covariates.

**Schauer, J. M.** and Hedges, L. V. (in preparation). Optimal design of multi-lab multi-run replication studies.

**Schauer, J. M.**, Kuyper, A. M., Hedberg, E. C., Feinis, F., and Hedges, L. V. (unpublished). Synthetic data disclosure control: Promise and feasibility for SLDS. Unpublished. Results presented to statewide longitudinal data systems in various states.

Salomon, M., **Schauer, J. M.**, and Swen, C. (2016). Fine arts and college enrollment. Unpublished. Results presented to Evanston Township High School stakeholders.

## TEACHING EXPERIENCE

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**Department of Statistics**, Instructor (2017 – present)  
Northwestern University, Evanston, IL

- STAT 301-3: Data Science 3 (Spring 2019, Spring 2020)

- Introduction to Python Short Course (Spring 2017)

**Sabermetrics Club**, Instructor (2015 – present)  
Francis W. Parker High School, Chicago, IL

**Northwestern University Athletics**, Tutor (2016 – 2019)  
Northwestern University, Evanston, IL

**Summer Institute in Randomized Trials for Established Researchers**, Consultant/Facilitator (2014 – 2019)  
Northwestern University, Evanston, IL

**Department of Statistics**, Teaching Assistant (2016 – 2018)  
Northwestern University, Evanston, IL

- STAT 439: Meta-analysis (Spring 2018)
- STAT 356: Applied Hierarchical Linear Models (Winter 2017)
- STAT 301-1: Introduction to Data Science (Fall 2016)

**Research Computing Services**, Instructor (Spring 2017)  
Northwestern University, Evanston, IL  
Introduction to `dplyr` (short course)

**Caledonian School**, English Teacher (2008 – 2009)  
Prague, CZ

**Santa Fe Catholic High School**, Mathematics Teacher (2007 – 2008)  
Lakeland, FL

## PROFESSIONAL EXPERIENCE

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**Course Developer** (2016 – 2019)  
Society for Research on Educational Effectiveness  
Duties: Generate and prepare materials for online course on multilevel models.

**Data Scientist** (2016 – 2019)  
National Opinion Research Center, Chicago, IL  
Duties: Conduct research on data privacy and statistical disclosure control in education data.

**Statistical Consultant** (2014 – 2016)  
Feinberg School of Medicine, Northwestern University, Chicago, IL  
Duties: Consult on medical student research projects

**Analyst** (2008 – 2013)  
Institute for Physical Sciences, McLean, VA  
Duties: Research and write reports on text mining and political network dynamics.