CURRICULUM VITAE

Elizabeth A. Stuart

PERSONAL DATA

Department of Mental Health

Johns Hopkins Bloomberg School of Public Health

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EDUCATION AND TRAINING

2004 PhD Statistics, Harvard University

Advisor: Professor Donald B. Rubin

Thesis "Matching methods for estimating causal effects using multiple

control groups"

2001 AM Statistics, Harvard University

1997 AB Mathematics (major) and Chemistry (minor), Smith College

1995-1996 Visiting Student in Mathematics and Computation, Oxford University

PROFESSIONAL EXPERIENCE

2016- Associate Dean for Education

2015- Professor

Johns Hopkins Bloomberg School of Public Health

Department of Mental Health (primary)
Department of Biostatistics (joint)

Department of Health Policy and Management (joint)

Associate Director for Statistical Methods, JHSPH Wendy Klag Center for

Autism & Developmental Disabilities

Co-Director, JHSPH Center for Mental Health and Addiction Policy

Research

Co-Director, Methods Core, JHSPH Center for Prevention and Early

Intervention

2011-2015 Associate Professor

Johns Hopkins Bloomberg School of Public Health

2006-2011 Assistant Professor

Johns Hopkins Bloomberg School of Public Health

2004-2006 Researcher

Mathematica Policy Research, Inc.

2006 Adjunct Faculty

Joint Program in Survey Methodology, University of Maryland and University of Michigan

2000-2004 Contractor

U.S. Bureau of the Census

2003-2004 Research Assistant for Professor Gary King

Department of Government, Harvard University

2000-2004 Teaching and Research Assistant

Department of Statistics, Harvard University

1997-1999 Research Assistant/Programmer

Mathematica Policy Research, Inc.

1995-1997 Research Assistant

Department of Mathematics, Smith College

PROFESSIONAL ACTIVITIES

Society Membership and Leadership and Conference Organization American Statistical Association, 2001-present

Founding Member, Mental Health Statistics Section

Co-Director, Charter Workgroup, 2011

Member, Liaison Committee, 2012 -

Council of Sections Representative, 2012 - 2015

Chair Elect. 2016

Social Statistics Section

Program Chair, 2012

Waksberg Award selection committee, 2016-2018

Council of Sections Nominating Committee, 2013

Committee on Women in Statistics, 2007 - 2012

ASA Gertrude Cox Scholarship Committee, 2006-2008

Session Chair, Joint Statistical Meetings, 2001-2016

Invited Session Organizer, Joint Statistical Meetings, 2007, 2010

Member, Focus Group on AAAS Human Rights Coalition and International Right to Enjoy the Benefits of Scientific Progress and its Applications, 2011

Judge, Washington Statistical Society Curtis Jacobs Award, 2005

International Conference on Health Policy Statistics

Organizing Committee, 2011, 2013, 2015, 2017

Invited Session Organizer, 2011, 2013

Third Annual Thomas R. Ten Have Symposium on Statistics in Mental Health

Organizing Committee, 2013

Society for Prevention Research, 2006-present

Member, Innovative Methods Theme Committee, 2009-2011

Annual Meeting Program Committee, 2009

Session Organizer, 2008, 2010

Society for Research in Educational Effectiveness, 2011 – present

Board member, 2017 -

Annual Meeting Abstract Reviewer, 2011, 2013

Pre-conference workshop presenter, Fall 2011

Association for Public Policy Analysis and Management, 2004-2008

Methods Program Committee, Fall Research Meeting, 2012, 2013

International Biometric Society Eastern North American Region

Spring Meeting Program Committee, 2010

American PsychoPathological Association, 2009-present

Co-organizer, Prevention Science & Methodology Group biannual meeting, 2008

Organizer, Atlantic Causal Inference Conference, 2008, 2012

American Public Health Association, 2007-2009

Institute of Mathematical Statistics, 2001-2008

Participation on National and International Advisory Panels

2016 -	What Works Clearinghouse panel on missing data, US Department of Education,
	Institute of Education Sciences

2016 - Member, Improvement Analytics Unit Technical Advisory Group, The Health Foundation and NHS England

2016 Committee of Visitors, Division of Social and Economic Sciences, National Science Foundation

2014- Chair, Inaugural PCORI Clinical Trials Advisory Panel

2014 National Academy of Sciences Planning Meeting on the Design

and Analysis of Observational Studies to Enhance Their Use in Providing Causal

Inference (for the National Institute of Aging)

2014 Member, What Works Clearinghouse Findings Development Team

U.S. Department of Education/Mathematica Policy Research, Inc.

2014-2015 National Academy of Sciences Panel on Research Methodologies and

Statistical Approaches to Understanding Driver Fatigue Factors in Motor Carrier

Safety and Driver Health (Committee Code: ZZ134455)

2012 GEAR Up Evaluation Technical Working Group

U.S. Department of Education/Abt Associates

2012 Advisory Committee on Advancing Adult Education Research

U.S. Department of Education, Institute of Education Sciences

2012 Committee to advise The Legacy Foundation Schroeder Institute for

Tobacco Research and Policy Studies on issue of equipoise

2011-2015 Evaluation of Race To The Top and School Improvement Grants Technical

Working Group

U.S. Department of Education/Mathematica Policy Research, Inc.

2010-2013 Evaluation of Teacher Residency Programs Technical Working Group

U.S. Department of Education/Mathematica Policy Research, Inc.

2010 National Evaluation of the Individuals with Disabilities Education Act (IDEA)

Technical Assistance and Dissemination Program (TA&D Program) Technical

Working Group

U.S. Department of Education/Westat

2009-2012 ITEST Advisory Board

U.S. Department of Education/University of South Florida

2008 Strengthening Adult Reading Instructional Practices Advisory Board

U.S. Department of Education/Abt Associates

2007 National Head Start Impact Study Advisory Board

U.S. Department of Health and Human Services

Consultations

2014- Georgetown University (Center for Research on Children in the United States)
2014- Arizona State University (Prevention Research Center)
2013- Brigham and Women's Hospital (Department of Pharmacoepidemiology)
2013- SRI International
2012- National Opinion Research Center (NORC)
2010-2013 Abt Associates
2009-2011 Washington University

2008- American Institutes for Research

2008 The Urban Institute

2006-2012 University of Pennsylvania School of Medicine

2006 Mathematica Policy Research, Inc.

2004-2006 RAND Corporation 2002-2005 Genzyme Corporation 2000-2004 Active Girls Initiative

Faculty Affiliations

Hopkins Population Center (Faculty Associate and Coordinating Committee, 2015-)

JHSPH Center for Mental Health and Addiction Policy Research (co-Director, 2014-)

Hopkins inHealth, Learning Methodologies Core (Member, 2013-)

Mannheim Center for European Social Research, University of Mannheim (External Fellow, 2014-)

JHSPH Wendy Klag Center for Autism & Developmental Disabilities (Associate Director; 2013-) JHSPH Center for Prevention and Early Intervention (Methods Core Co-Director, 2006 - 2014)

JHU Institute for Data Intensive Engineering and Science (IDIES; Affiliate Member, 2013 -)

JHSPH Center for Drug Safety and Effectiveness (Core Faculty; 2012 -)

JHSPH Center for the Prevention of Youth Violence (2006 -)

JHSPH Psychiatric Epidemiology Training Program (Core Faculty; 2012 -)

JHSPH Drug Dependence Epidemiology Training Program (Core Faculty; 2012 -)

Summer Research Institute on Geriatric Mental Health Affiliated Faculty (2013)

Johns Hopkins University Training Program in Education Research (2009-)

JHSPH ACTIVE Evaluation, Fidelity Assessment Advisory Board (2010-2012)

Faculty Visitor, BEAR Program, Graduate School of Education, University of California at Berkeley (2008)

Faculty Visitor, Institute for Employment Research, Nuremberg, Germany (2011) Steering Committee, Prevention Science & Methodology Group (PSMG; 2012 - 2016)

Data Safety Monitoring Boards (DSMB)

The Impact of Neighborhoods, Networks and Depression on Drug Users' HIV Risks (PI: Latkin; 2009-)

Columbia University Center for Homelessness Prevention Studies (PI: Caton; 2011)

EDITORIAL ACTIVITIES

Editorial Boards

2009 - 2012 Associate Editor, Journal of the Royal Statistical Society, Series A
 2011 - 2016 Associate Editor, The Journal of Causal Inference
 2012 - Associate Editor, Sociological Methods and Research
 2012 - 2016 Associate Editor, Statistics in Medicine
 2013 - 2014 Associate Editor, Journal of Educational and Behavioral Statistics

2014 - 2019	Management Committee, Journal of Educational and Behavioral Statistics
2013 - 2015	Associate Editor, Journal of Research on Educational Effectiveness
2014 - 2016	Associate Editor, Journal of the American Statistical Association, Reviews
2014 -	Associate Editor, Observational Studies
2015 -	Associate Editor, <i>Psychometrika</i>
2015 -	Methods Editor Journal of Research on Educational Effectiveness

Peer Review Activities

Academy Health

Administration and Policy in Mental Health

American Journal of Epidemiology

American Journal of Evaluation

American Journal of Geriatric Psychiatry

American Journal of Public Health

The American Statistician

Annals of Applied Statistics

Annals of Epidemiology

Bayesian Analysis

Biometrics

Biostatistics

British Medical Journal (BMJ)

Children and Youth Services Review

Circulation

Clinical Trials

Communications in Statistics

Comparative Effectiveness Research

Computational Statistics and Data Analysis

Criminology

Developmental Psychology

Educational Psychology Review

Epidemiology

Epidemiology and Psychiatric Sciences

European Journal of Agricultural Economics

Health Economics

Health Services & Outcomes Research Methodology

Health Services Research

International Journal of Biostatistics

International Journal of Eating Disorders

International Statistical Review

Journal of Adolescent Health

Journal of the American Medical Association

Journal of the American Statistical Association

Journal of Behavioral Health Services & Research

Journal of Clinical Epidemiology

Journal of Clinical Psychiatry

Journal of Consulting and Clinical Psychology

Journal of Educational and Behavioral Statistics (Outstanding reviewer award, 2011)

Journal of Health Communication

Journal of Official Statistics

Journal of Politics

Methodology

Multivariate Behavioral Research

Peer

Pharmacoepidemiology and drug safety (Outstanding reviewer award, 2012)

Prevention Science

Psychiatric Services

Psychological Methods

Psychology of Addictive Behavior

Review of General Psychology

Science

Sociological Methods & Research

Statistical Methods in Medical Research

Statistica Sinica

Statistical Science

Statistics in Medicine

Survey Methodology

Book reviewer

Oxford University Press

Sage Publications

Springer Verlag

Ad-hoc review of grant proposals

National Science Foundation

Netherlands Organisation for Health Research and Development

Grant Review Panel Member

- 2015-2018 Standing Member, National Institute of Mental Health Services Research Committee (**SERV**)
- 2014 National Institute of Mental Health, Clinical Trials to Test the Effectiveness of Treatment, Prevention, and Services Interventions R01 and R01 Collaborative (Clinical Trials R01) Applications (**ZMH1 ERB-K (01))**
- 2014 National Institute of Mental Health, Services Conflicts (ZMH1 ERB-K (06))
- National Institute of Mental Health, Improving Health and Reducing Premature Mortality in People with Severe Mental Illness (**ZMH1 ERB-1 03 R**)
- 2014-2016 Principal member, Institute of Education Sciences, U.S. Department of Education, Education Systems and Broad Reform Review Panel
- 2013 National Institute of Mental Health, Fellowships and Dissertations Review Panel (**ZMH1 ERB-K 01 L**; ad hoc)
- 2013 Institute of Education Sciences, U.S. Department of Education, Accelerating the Academic Achievement of Students with Learning Disabilities Research Initiative Review Panel (ad hoc)
- National Institute of Mental Health, Grand Challenges in Global Mental Health, Special Emphasis Panel (**ZMH1 ERB-B**)
- 2011-2013 Principal member, Institute of Education Sciences, U.S. Department of Education Statistics and Modeling Panel
- 2011-2012 Institute of Education Sciences, U.S. Department of Education, Math and Science I Review Panel (ad hoc)

- 2010 National Institute of Mental Health, Interventions Committee For Disorders Involving Children And Their Families (ITVC; ad hoc)
- 2010 Institute of Education Sciences, U.S. Department of Education, Early Intervention and Early Childhood Education Panel (ad hoc)
- 2010 Institute of Education Sciences, U.S. Department of Education, Education Systems and Broad Reform Panel (ad hoc)
- 2009 Institute of Education Sciences, U.S. Department of Education, Reading, Writing, and Language Development Panel (ad hoc)

HONORS AND AWARDS

HONORS AND AWA	IRDS
Honors	
2016	Delta Omega Honor Society in Public Health, Alpha Chapter
2014	Fellow, American Statistical Association
2009	Paper recognized as "New Hot Paper" by Thomson Reuters
2008	Warren Miller Prize for best paper published in Volume 15 of <i>Political Analysis</i> .
1997	AB Magna cum laude, Smith College
1997	Phi Beta Kappa
Awards	
2015	American Statistical Association Health Policy Statistics Section Mid- Career Award
2015	JHSPH AMTRA Advising, Mentoring, and Teaching Recognition Award
2010	JHSPH Golden Apple award for Excellence in Teaching
2010	JHSPH AMTRA Advising, Mentoring, and Teaching Recognition Award
2010-2015	JHSPH Recognition for Excellence in Teaching (based on course reviews; for 2 courses: 140.664, 330.805, every time the courses offered)
2007	Johns Hopkins Bloomberg School of Public Health Edward R. Brewster Faculty Innovation Fund Awardee
2007	Child Prevention, Intervention, and Services Fellow
2007	Society for Prevention Research Travel Award
2002	Harvard University Cochran Travel Award
2001	Student Paper Award
	ASA Government Statistics/Social Statistics Section/Survey Research
	Methods Section of the American Statistical Association
2000	American Statistical Association Gertrude Cox Scholarship
2002, 2004	Harvard University Certificate of Distinction in Teaching
1999	Harvard University William Cochran Fellowship
1999-2001	National Science Foundation Graduate Research Fellowship
1997	Smith College Pokora Prize for Senior who excels in Mathematics
1995-1997	Barry M. Goldwater Scholar
1993-1997	Robert C. Byrd Scholar
Named Lectureships	
2013	Dean's Lecture, Curry School of Education, University of Virginia
2012	Dean's Distinguished Lecture, Harvard University Graduate School of

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Education

PUBLICATIONS

[* indicates order of authors alphabetical] [** indicates student co-author]

Journal Articles (peer review)

- 1. Townsend, L., Musci, R., **Stuart, E.A.**, Ruble, A., and Beadreau, M. (in press). The Association between School Climate, Depression Literacy, and Mental Health Stigma among High School Students. Forthcoming in *Journal of School Health*.
- 2. Franklin JM, Eddings W, Austin PC, **Stuart EA**, Schneeweiss S. (in press). Comparing the performance of propensity score methods in healthcare database studies with rare outcomes. *Statistics in Medicine*.
- 3. Rathbun AM, **Stuart EA**, Shardell MD, Yau MS, M Baumgarten, Hochberg MC. Dynamic effects of depressive symptoms on osteoarthritis knee pain. (in press). *Arthritis Care Research*.
- 4. **Stuart, E.A.,** McGinty, E.E., **Kalb, L., Huskamp, H.A., Busch, S.H., Gibson, T.B., Goldman, H., and Barry, C.L. (2017). Increased Service Use Among Children With Autism Spectrum Disorder Associated With Mental Health Parity Law. *Health Affairs* 36(2). DOI: 10.1377/hlthaff.2016.0824.
- 5. Rathbun, A.M., Yau, M.S., Shardell, M., **Stuart, E.A.**, and Hochberg, M.C. (2016). Depressive symptoms and structural disease progression in knee osteoarthritis: data from the Osteoarthritis Initiative. *Clinical Rheumatology*. Published online 12 December 2016.
- 6. Westreich, D., Edwards, J.K., Lesko, C.R., **Stuart, E.A.**, and Cole, S.R. (in press). Transportability of trial results using inverse odds of sampling weights. Forthcoming, *American Journal of Epidemiology*.
- 7. Nguyen, T.Q., Cole, S., Ebnesajjad, C., and **Stuart, E.A.** (in press). Sensitivity Analysis for an Unobserved Moderator in RCT-to-Target-Population Generalization of Treatment Effects. *The Annals of Applied Statistics.*
- 8. Gibbs, H., et al. (in press). A randomized-controlled evaluation of an insulin pen storage policy. Forthcoming in *American Journal of Health-System Pharmacy*.
- 9. Tung, G.J., Vernick, J.S., **Stuart, E.A.,** Webster, D.W., and Gielen, A.C. (in press). Federal Actions to Incentivize State Adoption of 0.08g/dl Blood Alcohol Concentration Laws. *Injury Prevention*.
- 10. Bell, S. H., and **Stuart, E. A.** (2016). On the "where" of social experiments: The nature and extent of the generalizability problem. In L. R. Peck (Ed.), Social experiments in practice: The what, why, when, where, and how of experimental design & analysis. *New Directions for Evaluation* 152: 47–59.
- 11. Mercer, A., Keeter, S., Stuart, E.A., and Kreuter, F. (in press). Theory and Practice in Non-

- Probability Surveys: Parallels Between Causal Inference and Survey Inference. Forthcoming in *Public Opinion Quarterly*. (With invited discussion and rejoinder).
- 12. **Lenis, D., Ebnesajjad, C.E., and **Stuart, E.A.** (2016). A doubly robust estimator for the average treatment effect in the context of a mean-reverting measurement error. *Biostatistics*. Published online December 19, 2016. doi: 10.1093/biostatistics/kxw046.
- 13. **Stuart, E.A.**, Barry, C.L., Donohue, J.M., Greenfield, S.F., Duckworth, K., Song, Z., Kouri, E.M., Ebnesajjad, C., Mechanic, R., Chernew, M.E., and Huskamp, H.A. (in press). Effects of accountable care and payment reform on substance use disorder treatment: Evidence from the initial three years of the Alternative Quality Contract. Forthcoming in *Addiction*.
- 14. Birkbak, J., **Stuart, E.A.**, Lind, B.D., Qin, P., Stenager, E., Larsen, J.J., Wang, A.G., Nielsen, A.C., Pedersen, C.M., Winslov, J-H., Langhoff, C., Muhlmann, C., Nordentoft, M., and Erlangsen, A. (in press). Psychosocial therapy and causes of death after deliberate self-harm: a register-based, nationwide multicentre study using propensity score matching. Forthcoming in *Psychological Medicine*.
- 15. Patterson, J., **Stuart, E.A.**, and Ford, J. (2016). Use of propensity score methods to address adverse events associated with the storage time of blood in an obstetric population: a comparison of methods. *BMC Research Notes* 9: 367.
- 16. Ostrow, L., Penney, D., Leaf, P.J., and **Stuart, E.A.** (in press). Web-Based Survey Data Collection with Peer Support and Advocacy Organizations: Implications of Participatory Methods. Forthcoming in *Progress in Community Health Partnerships: Research, Education, and Action.*
- 17. Hong, H., Rudolph, K.E., and **Stuart, E.A.** (in press). Bayesian approach for addressing differential covariate measurement error in propensity score methods. Forthcoming in *Psychometrika*.
- 18. Rudolph, K.E., Colson, K.E., **Stuart, E.A.**, and Ahern, J. (in press). Optimally combining propensity score subclasses. Forthcoming in *Statistics in Medicine*.
- 19. **Stuart, E.A.**, Bell, S.H., Ebnesajjad, C., Olsen, R.B., and Orr, L.L. (in press). Characteristics of school districts that participate in rigorous national educational evaluations. Forthcoming in *Journal of Research on Educational Effectiveness*.
- 20. **Stuart, E.A.**, and **Rhodes, A. (in press). Generalizing Treatment Effect Estimates from Sample to Population: A case study in the difficulties of finding sufficient data. Forthcoming in *Evaluation Review*.
- 21. **Hassan, A.N., **Stuart, E.A.**, and De Luca, V. (2016). Childhood maltreatment increases the risk of suicide attempt in schizophrenia. *Schizophrenia Research*. Epub ahead of print 2016 May 25. PMID: 27236409.
- 22. **Westlund, E., and **Stuart, E.A.** (in press). The Nonuse, Misuse, and Proper Use of Pilot Studies in Experimental Evaluation Research. Forthcoming in the *American Journal of Evaluation*.

- 23. Westreich, D., Edwards, J.K., Rogawski, E., Hudgens, M.G., **Stuart, E.A.**, and Cole, S.R. (2016). Causal impact: Epidemiological approaches for a public health of consequence. *American Journal of Public Health* 106(6): 1011-1012.
- 24. Gorodetski, et al. (in press). Advanced-stage hepatocellular carcinoma with portal vein thrombosis: conventional versus drug-eluting beads transcatheter arterial chemoembolization. Forthcoming in *European Radiology*.
- 25. Huskamp, H., Greenfield, S.F., **Stuart, E.A.,** Donohue, J.M., Duckworth, K., Kouri, E.M., Song, Z., Chernew, M.E., and Barry, C.L. (in press). Effects of Global Payment and Accountable Care on Tobacco Cessation Service Use: An Observational Study. Forthcoming in *Journal of General Internal Medicine*.
- 26. Lamont, A., Lyons, M.D., Jaki, T., **Stuart, E.A.**, Feaster, D.J., Tharmaratnam, K., Obserski, D., Ishwaran, H., Wilson, D.K., and Van Horn, M.L. (2016). Identification of predicted individual treatment effects in randomized clinical trials. *Statistical Methods in Medical Research*. Published online March 30, 2016.
- 27. Wang CP, Lehman D, Lam YWF, Kuhn J, Mahalingam D, Weitman S, Lorenzo C, Downs JD, **Stuart EA**, Hernandez J, Thompson IM, Ramirez AG. (2016). Metformin for Reducing Racial/Ethnic Difference in Prostate Cancer Incidence for Men with Type 2 Diabetes. *Cancer Prevention Research*. Published online first March 29, 2016.
- 28. Colson, K.E., Rudolph, K.E., Zimmerman, S.C., Goin, D.E., **Stuart, E.A.**, van der Laan, M., and Ahern, J. (in press). Optimizing matching and analysis combinations for estimating causal effects. Forthcoming in *Scientific Reports*.
- 29. Cheng, C. et al. (in press). Association between lithium use and risk of Alzheimer's Disease. Forthcoming in *Journal of Clinical Psychiatry*.
- 30. Susukida, R., Crum, R., **Stuart, E.A.**, Ebnesajjad, C., and Mojtabai, R. (2016). Assessing Sample Representativeness in Randomized Control Trials: Application to the National Institute of Drug Abuse Clinical Trials Network. *Addiction* 111(7): 1226-1234.
- 31. George, B.J., Beasley, T.M., Brown, A.W., Dawson, J., Dimova, R., Divers, J., Goldsby, T.U., Heo, M., Kaiser, K.A., Keith, S.W., Kim, M.Y., Li, P., Mehta, T., Oakes, J.M., Skinner, A., **Stuart, E.A**., and Allison, D.B. (2016). Common Scientific and Statistical Errors in Obesity Research. *Obesity* 24: 781-790.
- 32. Kennedy-Hendricks A, Richey M, McGinty EE, **Stuart EA**, Barry CL, Webster DW. (2016). Opioid Overdose Deaths and Florida's Crackdown on Pill Mills. *American Journal of Public Health* 106(2): 291-297.
- 33. Barry CL, **Stuart EA**, Donohue J, Greenfield S, Kouri E, Duckworth K, Song C, Mechanic R, Chernew M, Huskamp HA. (2015). The early impact of the "Alternative Quality Contract" on Mental Health Service Use and Spending in Massachusetts. *Health Affairs* 34(12): 2077-2085.

- 34. Bell, S.H., Olsen, R.B., Orr, L.L., and **Stuart, E.A.** (2016). Estimates of external validity bias when impact evaluations select sites non-randomly. *Educational Evaluation and Policy Analysis* 38(2): 318-335.
- 35. Mayo-Wilson, E., Hutfless, S., Li, T., Gresham, G., Fusco, N., Ehmsen, J., Heyward, J., Vedula, S., Lock, D., Haythornwaite, J., Payne, J.L., Cowley, T., Tolbert, E., Rosman, L., Twose, C., **Stuart, E.A.**, Hong, H., Doshi, P., Suarez-Cuervo, C., Singh, S., and Dickersin, K. (2015). Integrating multiple data sources (MUDS) for meta-analysis to improve patient-centered outcomes research: a protocol for a systematic review. *Systematic Reviews* 4: 143. http://www.systematicreviewsjournal.com/content/4/1/143
- 36. Li, P., **Stuart, E.A, and** Allison, D.B. (2015). Multiple imputation: A flexible tool for handling missing data. *Journal of the American Medical Association* 314(18): 1966-1967. NIHMS ID: 731701.
- 37. Rudolph, K., Sanchez, B.N., **Stuart, E.A.**, Greenberg, B., Fujishiro, K., Wand, G.S., Shrager, S., Seeman, T., Diez Roux, A.V., and Golden, S.H. (2016). Job strain and the cortisol diurnal cycle in MESA: accounting for between- and within-day variability. *American Journal of Epidemiology* 183(5): 497-506.
- 38. Austin, P.C., and **Stuart, E.A.** (2015). Moving towards best practice when using inverse probability of treatment weighting (IPTW) using the propensity score to estimate causal treatment effects in observational studies. *Statistics in Medicine* 34(28): 3661-3679. PMCID: PMC4626409.
- 39. Austin, P.C., and **Stuart**, **E.A.** (in press). Estimating of the effect of treatment on binary outcomes using full matching on the propensity score. Forthcoming in *Statistical Methods in Medical Research*.
- 40. Mojtabai, R., **Stuart, E.A**., et al. (2015). Long-Term Effects of Mental disorders on Employment in the National Comorbidity Survey Ten-Year Follow-up. *Social Psychiatry and Psychiatric Epidemiology* 50(11): 1657-1668.
- 41. Austin, P.C. and **Stuart, E.A.** (2015). Optimal full matching for survival outcomes: A method that merits more widespread use. *Statistics in Medicine* 34(30): 3949-3967. PMCID: PMC4715723.
- 42. Rutkow, L., Chang, H-Y., Daubresse, M., Webster, D.W., **Stuart, E.A.**, and Alexander, G.C. (2015). Effects of Florida's prescription drug monitoring program and pill mill laws on opioid prescribing and use. *JAMA Internal Medicine* 175(10): 1642-1649.
- 43. Mojtabai, R., Sampson, N.A., Hwang, I., Eaton, W.W., **Stuart, E.A.**, and Kessler, R. (2015). Long-Term Effects of Mental disorders on Educational Attainment In the National Comorbidity Survey Ten-Year Follow-up. *Social Psychiatry and Psychiatric Epidemiology* 50(10): 1577-1591.
- 44. Nguyen, T.Q., **Webb-Vargas, Y., Koning, I.M., and **Stuart, E.A.** (2015). Causal mediation analysis with a binary outcome and multiple continuous or ordinal mediators: Simulations and application to an alcohol intervention. *Structural Equation Modeling*. Published online

- 18 November 2015.
- 45. Kern, H.L., **Stuart, E.A.**, Hill, J., and Green, D.P. (2016). Assessing methods for generalizing experimental impact estimates to target populations. *Journal of Research on Educational Effectiveness* 9(1): 103-127.
- 46. Kohrt, B., Burkey, M., **Stuart, E.A.**, and Koirola, S. (2015). Alternative approaches for studying humanitarian interventions: propensity score methods to evaluate reintegration packages impact on depression, PTSD, and function impairment among child soldiers in Nepal. *Global Mental Health*. Published online 12 August 2015.
- 47. Slade, E.P., Goldman, H.H., Dixon, L.B., Gibbons, B., and **Stuart, E.A.** (2015). Assessing the representativeness of Medical Expenditure Panel Survey inpatient utilization data for individuals with psychiatric and non-psychiatric conditions. *Medical Care Research and Review* 72(6): 736-755.
- 48. **Webb-Vargas, Y., Rudolph, K.E., **Lenis, D., Murakami, P., and **Stuart, E.A.** (2015). An imputation-based solution to using mismeasured covariates in propensity score analysis. Forthcoming in *Statistical Methods in Medical Research*. Published online June 3, 2015. PMCID: In progress.
- 49. Austin, P., and **Stuart, E.A.** (2015). The performance of inverse probability of treatment weighting (IPTW) and full matching on the propensity score in the presence of model misspecification when estimating the effect of treatment on survival outcomes. *Statistical Methods in Medical Research*. Published online April 30, 2015. http://smm.sagepub.com/content/early/2015/04/30/0962280215584401.full.pdf
- 50. Rudolph, K., **Stuart, E.A.,** Vernick, J., and Webster, D. (2015). Association between Connecticut's Permit-to-Purchase Handgun Law and Homicides. *American Journal of Public Health* 105(8): e49-54.
- 51. McGinty, E.E., Busch, S.H., **Stuart, E.A.,** Huskamp, H., Gibson, T., Goldman, H.G., Barry, C.L. (2015). Federal Parity Law Associated With Increased Probability Of Using Out-Of-Network Substance Use Disorder Treatment Services. *Health Affairs* 34: 1331-1339.
- 52. **Baller, J.B., **Stuart, E.A.,** McGinty, E.E., Fallin, M.D., and Barry, C.L. (2015). Students with autism served in special education: trends from 2004-2012. *Health Behavior and Policy Review* 2(3): 210-218.
- 53. Hollm-Delgado, M-G., Piel, F., Weiss, D., Howes, R., **Stuart, E.A.**, Hay, S., and Black, R. (2015). Vitamin A supplements, routine immunization and the subsequent risk of Plasmodium infection among children under 5 years. *eLife* 4: e03925. http://elifesciences.org/content/4/e03925.
- 54. Erlangsen, A., ..., **Stuart, E.A.**, et al. (2015). Short and long term effects of psychosocial therapy for people after deliberate self-harm: a register-based, nationwide multicentre study using propensity score matching. *Lancet Psychiatry* 2(1): 49-58. Open access link: http://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366(14)00083-2/fulltext

- 55. **Stuart, E.A.**, Bradshaw, C.P., and Leaf, P.J. (2015). Assessing the generalizability of randomized trial results to target populations. *Prevention Science* 16(3): 475-485. PMCID: 4359056. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4359056/
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- * On All-Time Top 10 list of downloads, Social Science Research Network, Quantitative Methods: Econometrics, Polimetrics, and Statistics Section (as of April 15, 2008). Recognized as a "New Hot Paper in Economics and Business" by Thomson Reuters for being among the most cited in those fields. http://sciencewatch.com/dr/nhp/2009/09julnhp/09julnhplmaiET/.
- * As of June 26, 2010, most cited paper published in JRSS-A in 2007-2008.
- 135. McConnell, S., **Stuart, E.A.**, and Devaney, B. (2008). The truncation-by-death problem: What to do in an experimental evaluation when the outcome is not always defined. *Evaluation Review* 32(2): 157-186. PMID: 18319423. http://www.ncbi.nlm.nih.gov/pubmed/18319423.
- 136. **Stuart, E.A.** (2007). Estimating causal effects using school-level data sets. *Educational Researcher* 36(4): 187-198. http://edr.sagepub.com/content/36/4/187.short.
- 137. *Ho, D.E., Imai, K., King, G., and **Stuart, E.A.** (2007). Matching as nonparametric preprocessing for reducing model dependence in parametric causal inference. *Political Analysis* 15(3): 199-236. http://pan.oxfordjournals.org/content/15/3/199.short. Winner of Warren Miller Prize for best paper published in Volume 15 of *Political Analysis*. Selected as a Fast Breaking Paper in the field of Social Sciences, general, by Thomson Reuters, due to its being one of the most-cited papers in its discipline published between 2006 and 2008 (see http://sciencewatch.com/dr/fbp/2008/08octfbp/08octfbpHoET/).
- 138. *Rubin, D.B. and **Stuart, E.A.** (2006). Affinely invariant matching methods with discriminant mixtures of proportional ellipsoidally symmetric distributions. *The Annals of Statistics* 34(4): 1814-1826. http://www.jstor.org/stable/10.2307/2241998.
- 139. *Rubin, D.B., **Stuart, E.A.**, and Zanutto, E.L. (2004) A potential outcomes view of value-added assessment in education. *Journal of Educational and Behavioral Statistics* 29 (1): 103-116. http://www.jstor.org/stable/10.2307/3701308.
- 140. *Stuart, E.A. and Zaslavsky, A.M. (2002) Using administrative records to predict census day residency. In *Case Studies in Bayesian Statistics, Volume VI*, Edited by Gatsonis, C., Kass, R.E., Carriquiry, A., Gelman, A., Higdon, D., Pauler, D.K., Verdinelli, I. New York: Springer, pp. 335-349. http://www.amstat.org/sections/SRMS/Proceedings/y2001/Proceed/00612.pdf.
- 141. Devaney, B. and **Stuart, E.A.** (1998) Eating breakfast: Effects of the School Breakfast Program. *Family Economics and Nutrition Review* 11 (4). http://endhunger.usda.gov/ora/menu/Published/CNP/FILES/BR-REP.pdf.

Articles and Editorials not peer reviewed

- 1. Kennedy-Hendricks A, Richey M, McGinty EE, **Stuart EA**, Barry CL, Webster DW. (in press). Response to Delcher et al Letter on Florida's Prescription Opioid Policy Interventions. *American Journal of Public Health*.
- 2. Stoto, M.A., Oakes, M., **Stuart, E.A.**, Savitz, L, and Priest, E., for the EDM Forum Methods Collaborative. (2014). Analytical methods for a learning healthcare system Part 1: Framing the research question. White paper, EDM Forum, AcademyHealth.

- 3. Stoto, M.A., Oakes, M., **Stuart, E.A.**, Priest, E., and Savitz, L. for the EDM Forum Methods Collaborative. (2014). Analytical methods for a learning healthcare system Part 2: Design of Observational Studies. White paper, EDM Forum, AcademyHealth.
- 4. Stoto, M.A., Oakes, M., **Stuart, E.A.**, and Priest, E., for the EDM Forum Methods Collaborative. (2014). Analytical methods for a learning healthcare system Part 3: Analysis of Observational Studies. White paper, EDM Forum, AcademyHealth.
- 5. **Stuart, E.A.**, and **Hanna, D.B. (2013). Commentary: Should epidemiologists be more sensitive to design sensitivity? Invited Commentary. *Epidemiology* 24(1): 88-89. PMID: 23232614. http://www.ncbi.nlm.nih.gov/pubmed/23232614.
- 6. *Sobel, M.E., and **Stuart**, **E.A.** (2012). Commentary on "Weighting methods for assessing policy effects mediated by policy change" by Guanglei Hong and Takako Nomi. *Journal of Research on Educational Effectiveness* 5: 290-292.
- 7. *Jo, B., and **Stuart, E. A.** (2012). Causal interpretations of mediation effects: Comment on "Principal stratification as a framework for investigating mediational processes in experimental settings" by Lindsay C. Page. *Journal of Research on Educational Effectiveness* 5: 250-253.
- 8. Parakh, K., Win, S., and **Stuart, E.A.** (2011). Mortality in women with new-onset atrial fibrillation. Letter to the Editor, *Journal of the American Medical Association* 306(11): 1200-1201. PMID: 21934050. http://www.ncbi.nlm.nih.gov/pubmed/21934050.
- 9. **Stuart**, **E.A.** (2010). Book review of *Design of Observational Studies* by Paul R. Rosenbaum. *Journal of Educational and Behavioral Statistics* 35(6): 774-778.
- Stuart, E.A. (2008). Developing practical recommendations for the use of propensity scores: Discussion of "A critical appraisal of propensity score matching in the medical literature between 1996 and 2003" by Peter Austin, *Statistics in Medicine*. *Statistics in Medicine* 27(12): 2062-2065. DOI: 10.1002/sim.3207. PMID: 18286673. http://www.ncbi.nlm.nih.gov/pubmed/18286673.
- 11. *Cook, S.R. and Stuart, E.A. (2007) Discussion of Dominici et al. "Does the effect of micronutrient supplementation on neonatal survival vary with respect to the percentiles of the birth weight distribution?" Bayesian Analysis 1(5): 33-38. http://projecteuclid.org/DPubS/Repository/1.0/Disseminate?handle=euclid.ba/1340390059&view=body&content-type=pdf_1.
- 12. *Rubin, D.B. and **Stuart, E.A.** (2005) Matching with multiple control groups and adjusting for group differences. *2005 Proceedings of the American Statistical Association, Section on Health Policy Statistics* [CD-ROM]. Alexandria, VA: American Statistical Association. http://biostat.jhsph.edu/~estuart/RubinStuartJSM2005.pdf.
- 13. **Stuart**, **E.A.** and Judson, D.H. (2003) An empirical evaluation of the use of administrative records to predict census day residency. *2003 Proceedings of the American Statistical*

- Association, Section on Survey Research Methods [CD-ROM]. Alexandria, VA: American Statistical Association.
- 14. *Asher, J., Fienberg, S.E., **Stuart, E.A.** and Zaslavsky, A.M. (2003) Inferences for finite populations using multiple data sources with different reference times." In *Proceedings of Statistics Canada Symposium 2002: Modelling Survey Data for Social and Economic Research*, Ottawa, Ontario: Statistics Canada.
- *Stuart, E.A. and Zaslavsky, A.M. (2001) Using administrative records to predict census day residency. 2001 Proceedings of the American Statistical Association, Section on Survey Research Methods. Alexandria, VA: American Statistical Association. http://www.amstat.org/sections/SRMS/Proceedings/y2001/Proceed/00612.pdf.

Chapters

- 1. King, G., Imai, K., and **Stuart, E.A.** (2014). Misunderstandings between experimentalists and observationalists about causal inference. In *Field Experiments and their Critics: Essays on the uses and abuses of experimentation in the Social Sciences* (Dawn Langan Teele, Editor). New Haven, CT: Yale University Press. pp. 196-227.
- 2. **Stuart, E.A.** and **Naeger, S. (in press). Getting from correlation to causation: Estimating causal effects in health services research. Forthcoming in *Handbook of Health Services Research*. Edited by Boris Sobolev and Constantine Gatsonis.
- 3. **Stuart**, **E.A.** (2017). Generalizability of clinical trial results. *Methods in Comparative Effectiveness Research*. Edited by Constantine Gatsonis and Sally C. Morton.
- 4. Hill, J., and **Stuart, E.A.** (2015). Causal inference: Overview. *International Encyclopedia of the Social and Behavioral Sciences: Statistics, 2nd Edition.* pp. 255-260. Edited by Rafe Stolzenberg and Michael E. Sobel.
- 5. **Stuart, E.A.,** Leoutsakos, J-M., **Gross, A.L., **Kuramoto, S.J., and Eaton, W.W. (2012). An introduction to quantitative methods especially relevant for public mental health. *Public Mental Health*. Edited by William W. Eaton. Oxford University Press.
- 6. Eaton, W.W., Mojtabai, R., **Stuart, E.A.**, Leoutsakos, J-M.S., Kuramoto, S.J. (2012). Assessment of distress, disorder, impairment and need in the population. *Public Mental Health*. Edited by William W. Eaton. Oxford University Press.
- 7. **Stuart, E.A.** and Rubin, D.B. (2007). Best practices in quasi-experimental designs: Matching methods for causal inference. Forthcoming in *Best Practices in Quantitative Methods*, Edited by Jason Osborne (Chapter 11, pp. 155-176). New York: Sage Publications.
- 8. **Stuart, E.A**. (2003) Propensity scores. In *Encyclopedia of Social Science Research Methods*, Edited by Lewis-Beck, M., Bryman, A.E., and Liao, T.F. New York: Sage Publications.

Practice-Related Reports

- Panel on Research Methodologies and Statistical Approaches to Understanding Driver Fatigue Factors in Motor Carrier Safety and Driver Health. (2016). Committee on National Statistics; Board on Human-Systems Integration; Division of Behavioral and Social Sciences and Education; Transportation Research Board; National Academies of Sciences, Engineering, and Medicine. http://www.nap.edu/author/CNSTAT/division-of-behavioral-and-social-sciences-and-education/committee-on-national-statistics
- Cody, S., Schirm, A., Stuart, E., Castner, L., and Zaslavsky, A. (2008). Sources of variation in state-level food stamp participation rates. Report submitted to the U.S. Department of Agriculture Economic Research Service. Washington, DC: Mathematica Policy Research, Inc. http://www.ers.usda.gov/Publications/CCR37/
- 3. McConnell, S., **Stuart, E.A.,** Fortson, K., Decker, P., Perez-Johnson, I., Harris, B., and Salzman, J. (2006). *Managing Customers' Training Choices: Findings from the Individual Training Account Experiment.* Report submitted to the U.S. Department of Labor, Employment and Training Administration. Washington, DC: Mathematica Policy Research, Inc. http://azmemory.azlibrary.gov/utils/getfile/collection/feddocs/id/524/filename/525.pdf.
- 4. Torgesen, J., Myers, D., Schirm, A., Stuart, E., Vartivarian, S., Mansfield, W., Borhnstedt, G., Stancavage, F., Durno, D., Javorsky, R., and Haan, C. (2006). Closing the reading gap: First-year findings from a randomized trial of four reading interventions for striving readers. Report submitted to Congress by the Department of Education, Institute of Education Sciences. Washington, DC: Mathematica Policy Research, Inc. http://www.eric.ed.gov/ERICWebPortal/search/detailmini.jsp? nfpb=true& &ERICExtSearch SearchValue 0=ED491144&ERICExtSearch SearchType 0=no&accno=ED491144.
- 5. **Stuart, E.,** Olsen, R., Schirm, A., Young, J., and DesRoches, D. (2006). *The impacts of regular Upward Bound on postsecondary educational activities within 4-6 years after scheduled high school graduation.* Draft report submitted to the U.S. Department of Education, Policy and Program Studies Service. Washington, DC: Mathematica Policy Research, Inc.
- 6. Schirm, A., **Stuart, E.**, and McKie, A. (2006). *The Quantum Opportunity Program Demonstration: Final Impacts*. Report submitted to the U.S. Department of Labor, Employment and Training Administration. Washington, DC: Mathematica Policy Research, Inc. http://www.mathematica-mpr.org/publications/PDFs/QOPfinalimpacts.pdf.
- 7. Stuart, E.A. (2005). Estimating school-level causal effects using school-level data sets. Paper for National Academy of Sciences Board on Testing and Assessment's Symposium on the use of school-level data. Washington, DC: National Academy of Sciences. http://edr.sagepub.com/content/36/4/187.short.
- 8. *Stuart, E.A. and Zaslavsky, A.M. (2005). *Using administrative records to predict residency:* Final Report. Submitted to the U.S. Bureau of the Census.

PRACTICE ACTIVITIES

Presentations to policy-makers and other stakeholders

1. "The Quantum Opportunity Program Demonstration: Final Impacts." Briefing for Deputy Assistant Secretary, U.S. Department of Labor, Washington, DC, 2006.

- 2. "The Individual Training Accounts Experiment: What Did We Learn?" Briefing for Deputy Assistant Secretary, U.S. Department of Labor, Washington, DC, 2006.
- 3. "Power analysis for the behavioral sciences". Administration for Children and Families, U.S. Department of Health and Human Services, March 2009.
- 4. "Introduction to Statistics". State of Delaware Psychiatry Residency Program, March 2009
- 5. "Recent advances in missing data methods: Imputation and Weighting". U.S. Department of Health and Human Services, Maternal and Child Health Bureau, Epidemiology Training Program Webinar, September 2012 (20 attendees).
- 6. "The loss of external validity in program evaluations that select sites purposively." Institute of Education Sciences Speaker Series, Washington, DC, 2011.
- 7. "Analysis methods for enhancing external validity." Invited speaker at two-day meeting on external validity, Office of Planning, Research, and Evaluation, Administration for Children and Families, Department of Health and Human Services, Washington, DC, 2014.
- 8. "Using propensity scores in difference-in-difference models to estimate causal effects." Invited speaker at Center for Medicare & Medicaid Innovation, Centers for Medicare & Medicaid Services, Baltimore, MD, 2015
- 9. "Propensity score methods: The why, what and how." One-day short course at Center for Medicare & Medicaid Innovation, Centers for Medicare & Medicaid Services, Baltimore, MD, 2015.
- 10. "Propensity score methods with complex survey data." Invited lecture at the National Center for Health Statistics, Hyattsville, MD, 2015.
- 11. "Overview of Panel Report: Research methodologies and statistical approaches to understanding driver fatigue factors in motor carrier safety and driver health." Briefing to the Federal Motor Carrier Safety Administration, U.S. Department of Transportation, Washington, DC, 2016.
- 12. "Propensity score methods." Invited lecture in the Division of Cancer Control and Prevention Sciences, National Cancer Institute, Bethesda, MD, July 2016.
- 13. "Tutorial on propensity score methods." Invited tutorial at the Office of Biometrics, Center for Drug Evaluation and Research (CDER), Food and Drug Administration (FDA), July 2016.

Software development

 Ho, D.E., Imai, K., King, G., and Stuart, E.A. (2010). Matchlt. Software and package vignette for nonparametric preprocessing for parametric causal inference; listed at the Comprehensive R Archive Network. http://cran.r-project.org/web/packages/Matchlt/index.html.

Other: Data availability

1. *Ho, D.E., Imai, K., King, G., and **Stuart, E.A.** (2006). Replication Data Set for "Matching as Nonparametric Preprocessing for Reducing Model Dependence in Parametric Causal Inference", hdl:1902.1/YVDZEQIYDS http://id.thedata.org/hdl%3A1902.1%2FYVDZEQIYDS ; UNF:3:QV0mYCd8eV+mJgWDnYct5g== Murray Research Archive [distributor(DDI)]

CURRICULUM VITAE

Elizabeth A. Stuart

PART II

TEACHING

Advisees

Valerie Harder PhD, Mental Health 2008

Cannabis use and depression: Demystifying propensity score techniques

Current Position: Assistant Professor, Department of Psychiatry, University of Vermont

Satoko (Janet) Kuramoto PhD, Mental Health 2011

Suicidal ideation among inner-city drug users: Association with social support networks and polydrug use

* Winner of Morton Kramer Award from Department of Mental Health

Current Position: Social Science Analyst, Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration

Finbarr Leacy ScM, Biostatistics 2012

On the Joint Use of Propensity and Prognosis Scores in Causal Treatment Effect Estimation

Current Position: StAR Research Lecturer in Biostatistics, RCSI Population Health Sciences, Royal College of Surgeons in Ireland

Grace Lee PhD, Mental Health 2013

Antecedents, patterns, and consequences of gambling among urban youth Current Position: Clinical Trials Results Analyst Associate, ICF International

Hali Hambridge ScM, Biostatistics 2013

Handling the Complexities of Missing Data in the Context of a Propensity Score Analysis.

* Delta Omega Inductee

Current Position: Data Scientist, U.S. Federal Government

Megan Schuler PhD, Mental Health 2013

Estimating the relative treatment effects of natural clusters of adolescent substance abuse treatment services: Combining latent class analysis and propensity score methods

- Winner of Morton Kramer Award from Department of Mental Health
- Delta Omega Inductee

Current Position: Marshall J. Seidman Fellow in Health Care Policy, Department of Health Care Policy, Harvard Medical School

Kara Rudolph MHS, Biostatistics 2014

(Concurrent with PhD in Epidemiology)

Estimating population treatment effects from a survey sub-sample Current position: Robert Wood Johnson Health & Society Scholar

Sarah Naeger PhD, Mental Health 2014

Associations between Community Violence and Academic Competency in Urban Elementary School Children

Current Position: Behavioral Health and Quality Research, Truven Health Analytics

Yenny Webb-Vargas (co-advisor) PhD, Biostatistics 2016

Winner, 2015 Student Paper Award, Government/Social/Survey Statistics Sections of the American Statistical Association

Current Position: Statistician, Genentech

David Lenis PhD Candidate, Biostatistics

Luther Kalb PhD Candidate, Mental Health

- Recipient of NRSA award from NICHD
- Winner of Morton Kramer award from the Department of Mental Health

Post-doctoral fellows

Kara Rudolph 2014

Current position: Robert Wood Johnson Health & Society Scholar

Trang Nguyen (co-advisor) 2014-2016

Current position: Assistant Scientist, Department of Mental Health, Johns Hopkins

Bloomberg School of Public Health

Hwanhee Hong 2014-present

MPH Advisees

Sushant Sahastrabuddhe	2009-2010
Pamela Trangenstein	2012-2014

MPH Capstone Advisee

Ahmed Hassan	2016
Haley Gibbs	2015
Sushant Sahastrabuddhe	2010

Master's Thesis Reader

Keri Calkins, Epidemiology	2014
Lu Shen, Biostatistics	2014
Katherine Freeland, Biostatistics	2015

Preliminary Oral Participation (PhD)

Alisha Creel	Health, Behavior, and Society	2007
Chanelle Howe	Epidemiology	2007
Lauren Cain	Epidemiology	2007
Erin McDonald	Health, Behavior, and Society	2007
Leslie Thornton	Mental Health	2008
Meredith Weaver	Health, Behavior, and Society	2008

Beth Marshall	Population, Family, and Reproductive Health	2008
Bruce Swihart	Biostatistics	2008
Lok Wong	Health Policy and Management	2008
Haley Hedlin	Biostatistics	2008
Julie Leis	Mental Health	2009
Alden Gross	Mental Health	2009
Isadora Gil	Health Policy and Management	2009
Amy Daniels	Mental Health	2009
•	Is Health, Behavior, and Society	2009
Bridget Ambrose	Epidemiology	2009
Camelia Graham	Mental Health	2009
Fang Tian	Epidemiology	2010
Mara McAdams	Epidemiology	2010
Benjamin Johns	International Health	2010
Brian Weir	Health, Behavior, and Society	2010
Erin Trish	Health Policy and Management	2010
Gregory Tung	Health Policy and Management	2010
David Hanna	Epidemiology	2010
Dell Simmons	Graduate Training Program in	2010
	Clinical Investigation	
John Ayers	Health, Behavior, and Society	2011
Elizabeth Harrison	Population, Family, and	2011
	Reproductive Health	
Alexo Esperato	Health Policy and Management	2012
Christine Buttorff	Health Policy and Management	2012
Sarah Khasawinah	Mental Health	2012
Laysha Ostrow	Mental Health	2013
Jeffrey Duong	Mental Health	2013
Barbara Condliffe	Sociology	2013
Kari Weber	Epidemiology	2013
Parichoy Pal Choudh	ury Biostatistics	2013
Eric Roberts	Health Policy and Management	2013
Siri Warkentian	Sociology	2013
Julia Baller	Health Policy and Management	2013
Claudia Salzberg	Health Policy and Management	2014
Alene Kennedy Hend	ricks Health Policy and Management	2014
Samira Soleimanpour	Population, Family, and	2014
	Reproductive Health	
Katharine Shelley	International Health	2015
Luke Kalb	Mental Health	2016
Ryan Andrews	Mental Health	2016
Hillary Samples	Health Policy and Management	2016
Taruja Kamarker	Health Policy and Management	2016
Sachini Bandara	Health Policy and Management	2016
Lyndsey Ferris	Health Policy and Management	2017
Alex McCourt	Health Policy and Management	2017

Final Oral Participation (PhD or DrPH)

Erin McDonald	Health, Behavior, and Society	2007
Xianbin Li	Biostatistics	2008
Chanelle Howe	Epidemiology	2009
Suzanne Goodwin	Health, Policy and Management	2009
Brian Lee	Epidemiology	2009
Beth Marshall	Population, Family, and	2009
	Reproductive Health	
Leslie Thornton	Mental Health	2009
Nirali Shah	International Health	2010
Anna Christensen	Population, Family, and	2010
	Reproductive Health	
Fengmin Zhao	International Health	2010
Alden Gross	Mental Health	2010
Julie Leis	Mental Health	2010
Amy Daniels	Mental Health	2011
Fang Tian	Epidemiology	2012
Lok Wong Samson	Health Policy and Management	2012
Benjamin Johns	International Health	2012
Nkemdiri Iruka	Health, Behavior, and Society	2012
Isadora Gil	Health Policy and Management	2012
David Hanna	Epidemiology	2012
Rebecca Evans	Health, Behavior, and Society	2012
Ben Zablotsky	Mental Health	2012
Brian Weir	Health, Behavior, and Society	2012
Gregory Tung	Health Policy and Management	2012
Divya Nair	International Health	2012
Elizabeth Harrison	Population, Family, and	2013
	Reproductive Health	
Lauren Pacek	Mental Health	2013
Megan Schuler	Mental Health	2013
Christina Sun	Health, Behavior, and Society	2014
Kara Rudolph	Epidemiology	2014
Alexo Esperato-Martir	nez Health Policy and Management	2014
Marian Jarlenski	Health Policy and Management	2014
Laysha Ostrow	Mental Health	2014
Christine Buttorff	Health Policy and Management	2014
Julia Baller	Health Policy and Management	2014
Emily Adrion	Health Policy and Management	2015
Claudia Salzberg	Health Policy and Management	2015
Samira Soleimanpour	Population, Family, and	2015
	Reproductive Health	
Hoon Byun (DrPH)	Health Policy and Management	2016
Yi Lu	Biostatistics	2016
Steve Sutch (DrPH)	Health Policy and Management	2016

Classroom Instruction
Johns Hopkins University

Year Course/Description Enrollment

2008 -Estimating causal effects in medicine and 50 - 75 public health Dept. of Biostatistics 140.664 2011 - 2016 Seminar in statistical methods for mental 10 - 25Dept. of Mental Health 330.805 2010 -Estimating the effects of mental health 5 - 21 interventions in non-experimental settings Mental Health Summer Institute 2009 -Missing data methods for mental health 4 - 12 Research Mental Health Summer Institute **Guest Lectures** 2016 Public health perspectives on Autism Spectrum Disorders (D. Fallin and L. Li) 2011 Advanced Statistical Methods in Education Research (M. Stein) JHU School of Education ED.883.720 Instructor for 2 sessions on power analysis Doctoral Seminars in Epidemiology (S. Goodman) 2009 Co-instructor for 3 sessions on causal inference JHSPH Epidemiology 340.863.01 Seminars on Methods in Public Mental Health Research (P. Leaf) 2008-2011 JHSPH Mental Health 330.660.01 2006-Prevention of Mental Disorders: Public Health Interventions (N. Ialongo and G. Rebok) JHSPH Mental Health 330.607.01 Methodologic Challenges in Epidemiologic Research (D. Fallin, T. Glass, 2007-2010 S. Cole) JHSPH Epidemiology 340.754.01

Other institutions

2006 Causal Inference in Randomized Experiments and Observational Studies

Joint Program in Survey Methodology, University of Maryland

Other Teaching

"Statistical Inference for causal effects in experiments and observational studies through potential outcomes."

Short course (with Donald B. Rubin and Samantha R. Cook)

Offered at the Food and Drug Administration (2003), Harvard University (2004), the Joint Statistical Meetings (2003), Karolinska Institute (Stockholm; 2004), the

Medical College of Wisconsin (2003), the Conference of the Society for

Multivariate Analysis in the Behavioral Sciences (SMABS, 2004), Smith College (2005), and the University of Minnesota (2003)

"Missing Data Methods in Criminology"

Department of Criminology, University of Maryland, April 2009, December 2011

"Applied Propensity Score Analysis II: Practical Considerations and Lessons for Use" AcademyHealth webinar, January 2010 (> 100 attendees)

"The how, when, and why of the use of matching methods and propensity scores"

Advanced Quantitative Methods in Education Research, UCLA College of Education,

April 2010 (35 attendees)

Short course at the 2015 International Meeting of the Psychometric Society, Beijing, China, July 2015

"Recent advances in missing data methods: Multiple Imputation by Chained Equations." AcademyHealth Annual Research Meeting methods seminar, June 2010 (80 attendees).

"Multiple imputation using chained equations".

International Conference on Health Policy Statistics workshop, October 2011 (50 attendees)

"The how, when, and why of the use of matching methods and propensity scores"

American Statistical Association Philadelphia Chapter, Short Course, November 2011

(50 attendees)

Johnson and Johnson, April 2012 (100 attendees)

University of Pennsylvania Graduate School of Education, IES Training Program (25 attendees);

European Educational Research Association, Oslo, Norway, May 2014 (25 attendees).

"Introduction to methods for handling missing data"

JHSPH Center for American Indian Health, January 2012 (15 attendees)

"The how, when, and why of the use of matching methods and propensity scores" JHMI General Internal Medicine Fellows Program, November 2012

"Propensity score methods for estimating causal effects in pharmaceutical research: The why, when and how."

ASA Biopharmaceutical Section/FDA Workshop, September 2014 American Statistical Association webinar, June 2015 (over 100 attendees)

RESEARCH GRANT PARTICIPATION

Principal Investigator

<u>Title</u>	<u>Agency</u>	<u>Level</u>	Budget Amount
Using propensity scores for causal	NIMH	35%	\$1,119,057
inference with covariate measurement			
error (7/2013-6/2017)			
(R01MH099010)			
Estimating population treatment effects:	IES	15%	\$798,022
Incorporating propensity scores with			

complex survey data (co-PI with Nianbo Dong; 7/2015-6/2018) (R305D150001) Statistical methods for using rigorous **IES** evaluation results to improve local education policy decisions (co-PI with Robert Olsen; 7/2015-6/2018) (R305D150003 Enhancing external validity in existing NSF STEM evaluations (co-PI with Robert Olsen; 10/2013-9/2016)

12% \$796,205 (DRL-1335843) Estimating population effects of mental NIMH 75% \$727,092 health interventions (8/2008-7/2013) (K25MH083846) Instrumental variables and propensity JHSPH 20% \$29,557 score methods when dealing with **Faculty Innovations** noncompliance (completed) Fund Using administrative records to predict U.S. Census 10% \$210,000 Census day residency (completed) Bureau Current co-investigator Title **Grant Number** РΙ Agency Making better use of randomized ME-1502-27794 Dahabreh **PCORI** trials: Assessing applicability and (Stuart: Site PI) transporting causal effects Substance use disorder treatment under R01DA035214 Huskamp, NIDA new payment and delivery system models Barry Implementation of Federal Mental R01MH093414 Barry NIMH **Health Parity** Improving health care linkages for Arnold Barry, Individuals involved in the criminal Huskamp Fdn. justice system Generalizing RCT Efficacy Evidence: R01DA036520 Mojtabai NIDA Application to NIDA Clinical Trials Network Social Consequences of Mental Disorders: R01MH096826 Mojtabai NIMH

15%

\$896,361

E.A. Stuart

R01MH095855

Wilcox

NIMH

33

A Ten-Year Follow-up Study

Impact of Increasing Adolescent

Depression Literacy on Treatment-Seeking Behavior

Heterogeneity in Prevention Intervention R01DA031698 Jo NIDA

Effects On Substance Use: A Latent Variable

Causal Modeling Approach

(PI on subcontract)

Identifying Predictors of Program Bradshaw IES

Implementation to Inform A Tailored

Teacher Coaching Process

Supporting New Teachers Use of Effective Bradshaw IES

Classroom Management Techniques

(JHSPH PI: lalongo)

Feasibility of Web-Based Coach Training to Ialongo NIDA

Support Classroom Prevention Programs

Center for Prevention and Early lalongo NIMH

Intervention

Estimating mental health expenditures R21MH096285 Slade NIMH

using national household survey data

(PI on subcontract)

Enhancing Safe Sleep Practices among Gielen NICHD

Urban, Low-Income Mothers

Former co-investigator

SMI Dual Eligibles and Medicare Part D: Steinwachs NIMH

Impact on Medication Continuity and Outcomes

Community violence & youth: Affect, Cooley NIDA

behavior, academics (completed)

Center for the Prevention of Youth Leaf CDC

Violence

ACADEMIC SERVICE

Johns Hopkins Bloomberg School of Public Health

Hopkins Population Center Faculty Coordinating Committee, 2016-

JHU Leadership Development Program (LDP), 2016

Committee on Appointments and Promotions, 2015-2016

Faculty Search Committee, Department of International Health, 2015-2016

Biostatistics Learning Advisory Committee, 2008-

Strategic Plan Steering Committee, 2007-2008

Department of Mental Health seminar coordinator, 2007

Biostatistics and Mental Health Causal Inference Working Group Coordinator, 2007-

Department of Mental Health Admissions Committee, 2008-2013

Johns Hopkins University

Johns Hopkins University inHealth Methodology Working Group, 2013-PhD Innovation Initiative Review Committee, 2013

PRESENTATIONS

Invited talks at scientific meetings

Using administrative records to predict Census day residency.

Joint Statistical Meetings, Atlanta, GA, 2001.

Choosing well matched historical patients to supplement a randomized clinical trial.

New England Statistics Symposium, Harvard University, Cambridge, MA, 2004.

Matching with multiple control groups and adjusting for differences between the groups.

- Joint Statistical Meetings, Minneapolis, MN, 2005.
- Mid-Atlantic causal inference workshop, Columbia University, New York, NY, 2005.

Estimating causal effects using school-level datasets.

 National Academy of Sciences Board on Testing and Assessment's Symposium on the Use of School-level Data, Washington, DC, 2005.

Dealing with control group dropout: Using historical patient information to supplement a randomized trial.

Joint Statistical Meetings, Salt Lake City, UT, 2007.

Causal inference in education research.

American Educational Research Association Dissertation Grants Conference, 2007.

Practical issues in implementing multiple imputation.

 Association for Public Policy Analysis and Management Annual Research Meeting, Washington, DC, 2007.

Discussion of "Is regression adjustment supported by the Neyman model for causal inference?" (P. Schochet).

 Association for Public Policy Analysis and Management Annual Research Meeting, Washington, DC, 2007.

Defining baseline using propensity score matching: Application to a clinical trial.

- International Conference of Health Policy Statistics, Philadelphia, PA, 2008.
- Sixth annual American Statistical Association Connecticut Chapter Mini-Conference on Applied Causal Inference, 2008.

Discussion of "Individual and contextual differences in treatment effects: New methodologies for experimental and observational research." Invited Discussion.

• Society for Prevention Research Annual Meeting, San Francisco, CA, 2008.

New Directions in Prevention Science: Statistical Methodology. (Invited talk in session "Emerging investigators and emerging ideas in prevention science.")

• Society for Prevention Research Annual Meeting, San Francisco, CA, 2008.

Assessing generalizability: Case study of PBIS.

 Statistical and Applied Mathematical Sciences Institute Summer 2008 Program on Metaanalysis: Synthesis and Appraisal of Multiple Sources of Empirical Evidence, Durham, NC, 2008.

Using propensity scores to select subjects for follow-up.

Probability and Statistics Day, University of Maryland Baltimore County, 2009.

The use of propensity scores to assess generalizability.

Atlantic Causal Modeling Conference, University of Pennsylvania, 2009.

Connections between *Experimental Designs* and non-experimental designs.

• Joint Statistical Meetings, Washington, DC, 2009.

Generalizing evidence from randomized clinical trials to target populations: The ACTG-320 trial.

• Joint Statistical Meetings, Vancouver, BC, Canada, 2010.

Estimating Causal Effects. (Invited discussant)

American Political Science Association Annual Meeting, Washington, DC, 2010.

From propensity scores to prognosis scores: Matching methods in the context of principal stratification.

 Causal Inference in Health Research meeting, Centre de Recherche Mathematiques, Montreal, QC, Canada, 2011.

Challenging issues in the analysis of large-scale observational data: What you need to know.

• American Educational Research Association Grantee Meeting, Washington, DC, 2011.

Recent advances in estimating causal effects using prospective electronic clinical data.

EDM Forum Methods Symposium, Washington, DC, 2011.

Statistical approaches to studying mediator effects in education research. (Invited discussant)

 Society for Research on Educational Effectiveness Spring 2012 Conference, Washington, DC, 2012.

Estimates of external validity bias when impact evaluations select sites purposively.

 Society for Research on Educational Effectiveness Spring 2012 Conference, Washington, DC, 2012.

Getting ready for propensity score methods: Designing non-experimental studies and selecting comparison groups.

• Office of Planning, Research, and Evaluation, Administrative for Children & Families, U.S. Department of Health and Human Service, Washington, DC, 2012.

Advances and challenges in propensity score matching. (Invited discussant)

 Society for Research on Educational Effectiveness Spring 2013 Conference, Washington, DC, 2013.

Strategies for dealing with covariate measurement error in propensity scores.

- Society for Research on Educational Effectiveness Spring 2013 Conference, Washington, DC, 2013.
- Joint Statistical Meetings, Boston, MA, 2014

Statistical methods for assessing and enhancing external validity of randomized experiments.

- AcademyHealth Annual Research Meeting, Baltimore, MD, 2013.
- Association for Psychological Science Annual Meeting, Washington, DC, 2013.
- Health Services Research Network, The Health Foundation, London, UK, 2014

Methods for assessing sensitivity to unobserved confounding in non-experimental studies.

AcademyHealth Annual Research Meeting, Baltimore, MD, 2013.

Identifying Elements of Your Intervention that Generate Positive Impacts: Methodological Progress for Experimental Research. (Invited discussant)

 Office of Planning, Research, and Evaluation, Administrative for Children & Families, U.S. Department of Health and Human Service, Welfare Research and Evaluation Conference, Washington, DC, 2013.

Innovations in Propensity Score Methods for Addressing New Causal Questions in Observational Studies. (Invited discussant)

• Joint Statistical Meetings, Montreal, Canada, 2013.

Model Selection and Uncertainty in Causal Effect Estimation. (Invited discussant)

• Joint Statistical Meetings, Montreal, Canada, 2013.

Using propensity scores and difference-in-differences methods to estimate the effects of mental health parity.

International Conference on Health Policy Statistics, Chicago, IL, 2013.

Statistical methods for data synthesis. (Invited discussant)

International Conference on Health Policy Statistics, Chicago, IL, 2013.

Assessing external validity: A discussion of setting standards. (Roundtable leader)

American Evaluation Association Annual Meeting, Washington, DC, 2013.

Reweighting methods for generalizing results from RCTs.

Propensity score methods for estimating causal effects

- National Academy of Sciences Meeting on Observational Studies, for the National Institute of Aging, 2014.
- Society for Epidemiologic Research Annual Meeting, Seattle, WA, 2014.

Assessing methods for generalizing experimental impact estimates to target samples

Atlantic Causal Inference Conference, Brown University, 2014

Bayesian approaches for handling differential covariate measurement error in propensity score methods

International Biometrics Conference, Florence, Italy, 2014

Statistical Challenges in Education Research (Invited Discussant)

• Joint Statistical Meetings, Boston, MA, 2014

Using big data to estimate population treatment effects

• Workshop on big data in health policy, The Fields Institute, Toronto, Canada, 2015

"Implications of and solutions for covariate measurement error and differential covariate measurement across treatment groups."

- FDA/University of Maryland M-CERSI workshop on "Methodological Considerations to address Unmeasured Health Factors in Pharmacoepidemiology Studies that Rely on Electronic Healthcare Databases to Evaluate the Safety of Regulated Pharmaceutical Products in the Post-approval Setting." Silver Spring, MD, May 2015.
- International Meeting of the Psychometric Society, Beijing, China, July 2015
- University of Illinois at Chicago Department of Psychiatry Division of Biostatistics and Epidemiology. Chicago, IL, January 2016.

Statistical methods for implementation science

 Center for AIDS research conference on social and behavioral sciences, Baltimore, MD, October 2015

Estimating population treatment effects for public health interventions

- Dean's Lecture, JHSPH, Baltimore, MD, February 2016
- Ross-Royall Symposium on population inference, JHSPH, Baltimore, MD, February 2016

Invited discussion on big data

 Refining the concept of scientific inference when working with big data. A workshop of the Committee on Applied and Theoretical Statistics, The National Academies of Sciences, Engineering, Medicine. Washington, DC, June 2016

Methods for assessing and enhancing the external validity of randomized trials

ActStat annual meeting, Chicago, IL, July 2016.

Other talks and posters at scientific meetings presented by E.A. Stuart Matching using two control groups.

Joint Statistical Meetings, San Francisco, CA, 2003.

Individual-level multiple systems estimation: Predicting Census day residency.

Joint Statistical Meetings, Toronto, Ontario, 2004.

Estimating causal effects using multiple control groups.

• Conference for the Society for Multivariate Analysis in the Behavioral Sciences (SMABS), Jena, Germany, 2004.

Using historical patients to supplement a randomized trial.

Biennial CDC and ATSDR Symposium on Statistical Methods, Washington, DC, 2005.

Estimation of state-level standardized food stamp participation rates.

Joint Statistical Meetings, Seattle, WA, 2006.

Design and implementation of case-control matching to estimate the effects of value-added assessment.

• American Educational Research Association Meeting, San Francisco, CA, 2006.

Making use of limited resources: Optimal selection of subjects for follow-up.

- Society for Prevention Research Annual Meeting, Washington, DC, 2007.
- Prevention Science Methodology Group conference. Baltimore, MD, 2008.
- Society for Prevention Research Annual Meeting, Washington, DC, 2009.

Using Full Matching to Estimate Causal Effects in Non-Experimental Studies: Examining the Relationship between Adolescent Marijuana Use and Adult Outcomes.

- Society for Epidemiologic Research, Boston, MA, 2007.
- Society for Prevention Research Annual Meeting, San Francisco, CA, 2008.

Handling missing data: The motivation and method of multiple imputation.

• 21st Annual Research Conference: A System of Care for Children's Mental Health: Expanding the Research Base. Tampa, FL, 2008.

Assessing generalizability: Case study of PBIS.

- Society for Prevention Research Annual Meeting, Washington, DC, 2007.
- 2nd Annual NIH conference on the science of dissemination and implementation: Building research capacity to bridge the gap from science to service. Bethesda, MD, 2009.
- American Public Health Association Annual Meeting, Philadelphia, PA, 2009.
- Society for Prevention Research Annual Meeting, Washington, DC, 2011.

Combining experimental and population data: Moving towards external validity.

 Banff International Research Station Workshop on Causal Inference, Banff, Canada, 2009.

Estimating mediation using propensity score matching.

Society for Prevention Research Annual Meeting, Washington, DC, 2009.

Balance metrics for propensity score methods.

Joint Statistical Meetings, Miami Beach, FL, 2011.

Using multiple imputation – external calibration for propensity score estimation in the presence of covariate measurement error

- Society for Research in Educational Effectiveness Annual Meeting, March 2013
- National Council on Measurement in Education Annual Meeting, April 2014
- Society for Prevention Research Annual Meeting, May 2015

Bayesian approaches for handling differential covariate measurement error in propensity score methods

International Biometrics Society Conference, Florence, Italy, July 2014

Invited Discussant, Session on Integrative Data Analysis

Gerontological Society of America, Washington, DC, November 2014

Keynote speaker, Causal inference

University of Umea Winter Conference in Statistics, Borgafjall, Sweden, March 2015

Combining Propensity Score Methods and Complex Survey Data to Estimate Population Treatment Effects.

 Society for Research on Educational Effectiveness Annual Meeting, Washington, DC, March 2016

Invited Discussant, Recent advances in matching methods for non-experimental studies

Joint Statistical Meetings, Chicago, IL, July 2016

Recent advances in non-experimental comparison group designs

 Building Strong Evidence in Challenging Contexts: Alternatives to traditional randomized controlled trials. Office of Planning Research and Evaluation, Administration for Children & Families, U.S. Department of Health and Human Services, September 2016

Talks and posters presented by students with my involvement

- Harder, V.S., Stuart, E.A., Anthony, J.C. Exploring the developmental pathway of childhood psychopathology, adolescent cannabis problems and young adult major depression. Poster Presentation: American Psychopathological Association, New York City, NY, March 2007.
- Harder, V.S., **Stuart, E.A.**, Anthony, J.C. Applying alternative propensity score techniques to test whether cannabis problem use causes depression. Oral Presentation: Society for Epidemiologic Research, Boston, MA, June 2007.
- Harder, V.S., **Stuart, E.A.**, Anthony, J.C. Early onset cannabis problem use and young adult major depression: Male-female variation. Oral Presentation: College on Problems of Drug Dependence, Quebec City, Canada, June 2007.
- Daniels, A.M., Stuart, E.A., & Azur, M.J. The Effect of Heavy Alcohol Use on Delinquency in Adolescents Served by Mental Health Systems of Care. Poster presented at the Johns Hopkins Bloomberg School of Public Health Conference for the Dissemination of Student Research on Addictions, Infectious Disease, and Public Health, Baltimore, MD, April 2009.
- Kuramoto, S.J., Runeson, B., **Stuart, E.A.**, Wilcox, H.C. Characterizing time at risk to hospitalization for suicide attempt among offspring of suicide decedents. The European Symposium on Suicide and Suicidal Behaviour, Rome, Italy, 2010.

- Gross, A.L., Landa, R., and **Stuart, E.A**. Trajectory of Early Development: ASD, Broader Phenotype, Typical Development. Presentation at the International Meeting for Autism Research, Philadelphia, PA., May 2010.
- Christensen, A.L., Perry, D.F., Stuart, E.A., and Le, H. Social support among low-income Latina immigrants: Resilience against perinatal depression. Symposium presentation at Head Start Research Conference, Washington, D.C., June 2010.
- Christensen, A.L., Stuart, E.A., Perry, D.F., and Le, H. An application of growth mixture modeling in MCH: Unintended pregnancy and perinatal depression trajectories among Hispanic immigrants. Symposium presentation at American Public Health Association conference, Denver, CO, November 2010.
- Warkentian, S., Jo, B., and **Stuart, E.A.** Beyond Binary: Using Propensity Scores to Account for Varying Levels of Program Participation in Randomized Controlled Trials. Society for Research in Educational Effectiveness spring conference, Washington, DC, March 2011.
- Warkentian, S., Jo, B., and Stuart, E.A. Beyond Binary: Using Propensity Scores to Account for Varying Levels of Program Participation in Randomized Controlled Trials. Society for Prevention Research Annual Meeting, Washington, DC, 2011.
- Kuramoto, S.J., Stuart, E.A., Latkin, C. Examining trajectories of depressive symptoms among inner-city adult drug users. Society for Prevention Research Annual Meeting, Washington, DC, 2011.
- Zablotsky, B., and Stuart, E.A. The Role of Emotional and Social Supports for Parents of Children with Autism. Society for Prevention Research Annual Meeting, Washington, DC, 2011.
- Slates, S., and **Stuart, E.A.** Treatment effect heterogeneity in multi-site impact trials. Society for Prevention Research Annual Meeting, Washington, DC, 2011.
- Kuramoto, S.J., Liu, W., and **Stuart, E.A.** Methods for assessing sensitivity to an unobserved confounder. Society for Prevention Research Annual Meeting, Washington, DC, 2011.
- DuGoff, E., Schuler, M., and Stuart, E.A. Generalizing Observational Study Results: Applying Propensity Score Methods to Complex Surveys. Agency for Healthcare Research and Quality DEcIDE Methods Symposium, Washington, DC, 2012.
- Hanna, D., Stuart, E.A., and Gange, S. Use of Propensity Score Matching to Assess the Effect of a State Policy on Treatment Outcomes in U.S. HIV-infected Persons. Society for Epidemiologic Research Annual Meeting, Minneapolis, MN, 2012.
- Rudolph, K., Glass, T., **Stuart, E.A.,** and Merikangas, K. Using propensity score subclassification to examine the association between neighborhood disadvantage and

- adolescent mental health. Society for Epidemiologic Research Annual Meeting, Minneapolis, MN, 2012.
- Schuler, M., Dugoff, E., and Stuart, E.A. Generalizing Observational Study Results: Applying Propensity Score Methods to Complex Surveys. National Conference on Health Statistics, Washington, DC, 2012. Designated as Outstanding Student Abstract.
- Ramsey, C., Stuart, E.A., Lee, H., and Eaton, W.W. Early and Mid-life Depression as a risk factor for late Life Cognitive Deficits: A 26-Year Follow-Up of the Baltimore Epidemiologic Catchment Area Study. American Geriatric Society Annual Meeting, Grapevine, TX, 2013.
- Lee, G.P., **Stuart**, **E.A.**, Ialongo, N.S., and Martins, S.S. Parental monitoring trajectories and gambling among a longitudinal cohort of urban youth. American Psychopathological Association Annual Meeting, New York, NY, 2013.
- Schuler, M., Dugoff, E., and **Stuart, E.A.** Generalizing Observational Study Results: Applying Propensity Score Methods to Complex Surveys. AcademyHealth Annual Research Meeting, Baltimore, MD, 2013.
- Hollm-Delgado, M-G., Piel, F.B., Howes, R.E., Stuart, E.A., Hay, S.L., and Black, R.E.
 Children in sub-Saharan Africa with high DTP coverage have lower risk of malaria after Vitamin A supplementation. JHVI Vaccine Day, 2013.
- Nguyen, T.Q., and Stuart, E.A. Comparing the health of non-heterosexual to heterosexual youth in Viet Nam: Analysis using propensity score matching. American Public Health Association Annual Meeting, 2013.
- Westlund, E., and Stuart, E.A. The proper (and improper) use of pilot studies in education research. Society for Research on Educational Effectiveness Spring 2014 Conference, 2014.
- Webb-Vargas, Y., Lenis, D., Murakami, P., Landa, R.J., and **Stuart, E.A.** Applying multiple imputation with external calibration to propensity score analysis. ENAR, 2014.

Invited Colloquia

Matching methods for estimating causal effects using multiple control groups.

- Williams College Department of Mathematics and Statistics, Williamstown, MA, 2003.
- Colby College Department of Mathematics and Statistics, Waterville, ME, 2003.
- Georgetown University Department of Biostatistics, Washington, DC, 2003.
- Boston University Veteran's Administration, Bedford, MA, 2004.
- Harvard University Department of Government, Cambridge, MA, 2004
- University of Washington Department of Biostatistics, Seattle, WA, 2004.
- University of Pennsylvania Department of Statistics, Philadelphia, PA, 2004.
- The RAND Corporation, Santa Monica, CA, 2004.
- Mathematica Policy Research, Inc., Washington, DC, 2004.
- Harvard University Department of Biostatistics, Boston, MA, 2004.

Evaluation of a school dropout prevention program: Estimation of causal effects through matching.

• Smith College Department of Mathematics, Northampton, MA, 2005.

Propensity score matching methods for estimating the effect of a school-level intervention.

• Johns Hopkins University Department of Mental Health, Washington, DC, 2006.

Causal Inference in Political Science and Public Policy Research: Matching as Nonparametric Preprocessing for Improving Parametric Causal Inference.

• George Washington University Institute of Public Policy, Washington, DC, 2006.

Propensity score matching with multiple control groups.

- Johns Hopkins University Department of Economics and Department of Biostatistics Causal Inference Workshop, Baltimore, MD, 2006.
- Prevention Science & Methodology Group, 2007.

Defining "baseline" in a propensity score matching analysis: Application to a clinical trial.

• The RAND Corporation, Washington, DC, 2006.

Statistical methods: Focus on experiments and their complications.

• CHIPS Summer Training Institute, Baltimore, MD, 2007.

Propensity scores and matching methods in education research: Designing observational studies.

U.S. Department of Education, Washington, DC, 2007.

What happens when some of the controls get the treatment? Connections to propensity scores, modeling, and clinical trial simulation.

• U.S. Food and Drug Administration, Rockville, MD, 2007.

Making use of limited resources: Optimal selection of subjects for follow-up.

- Prevention Science & Methodology Group, 2007.
- Prevention Science & Methodology Group biannual conference, Baltimore, MD, 2008.

Propensity score matching methods for examining the relationship between adolescent drug use and adult outcomes.

- The University of Chicago, Department of Health Studies, Chicago, IL, 2007.
- The Methodology Center, The Pennsylvania State University, State College, PA, 2007.
- Initiative in Population Research, Ohio State University, Columbus, OH, 2008.

Principal stratification in experimental and non-experimental studies.

• American Institutes for Research, Washington, DC, 2008.

The use of propensity scores in mental health research.

• Department of Mental Health, JHSPH, 2009.

Practical issues in the use of propensity score methods.

• Stat-Epi Group, JHSPH, 2009.

 Department of Mathematics and Statistics, University of Maryland Baltimore County, 2009.

The use of propensity scores to assess generalizability.

- BEAR Program, Graduate School of Education, University of California at Berkeley, Berkeley, CA, 2008.
- Biostatistics Division, Department of Psychiatry, Columbia University, 2009.
- Department of Measurement, Statistics, and Evaluation, University of Maryland College of Education, 2010.
- Department of Biostatistics, UCLA, 2010.
- Department of Biostatistics and Epidemiology, McGill University, 2010.
- Prevention Science Methodology Group, 2010.
- Division of Biostatistics, University of Maryland Marlene and Stewart Greenebaum Cancer Center, Department of Epidemiology and Public Health, 2010.
- Institute of Statistics, Ludwig-Maximilians-University, Munich, Germany, 2011.
- Institute of Psychiatry, University of Jena, Germany, 2011.
- Institut fur Arbeitsmarkt-und Berufsforschung, Nuremberg, Germany, 2011.

Recent advances in propensity score methods: Estimation and balance checking.

 Welch Center for Prevention, Epidemiology, and Clinical Research, Johns Hopkins Medical Institutions, April 2012.

What propensity scores can and can't do for you

Prevention Science Methodology Group, 2012.

Assessing the generalizability of randomized trial results in education and public policy.

- National Opinion Research Center (NORC), Bethesda, MD, 2012.
- The Urban Institute, Washington, DC, 2012.
- Northwestern University Institute for Policy Research, Evanston, IL, 2012.
- Harvard University Graduate School of Education, Dean's Distinguished Lecture, Cambridge, MA, 2012.
- Social Experiments in Practice: The why, when, where, and how of experimental design & analysis, Abt Associates 50th Anniversary, Washington, DC, 2014. http://www.appam.org/social-experiments-in-practice-the-why-when-where-and-how-of-experimental-design-analysis/

Recent advances in propensity score methods: Balance checking and sensitivity analysis

- Abt Associates, Bethesda, MD, 2012
- University of Maryland, Department of Measurement, Statistics, and Evaluation, College Park, MD, 2014

Propensity score methods II: The how (of matching), how well (diagnostics), and what if (complications)?

 Pennsylvania State University IES Training Program Summer Institute, State College, PA, 2013.

Leveraging `big data' to estimate population treatment effects.

 Curry School of Education, University of Virginia, Dean's Lecture, Charlottesville, VA, 2013.

Propensity score methods for when covariates are measured with error

- Georgetown University Department of Biostatistics, Washington, DC, 2014
- The RAND Corporation, Jointly sponsored by the Statistics group and the Center for Causal Inference, Alexandria, VA, 2014
- DCEG Biostatistics Branch, National Cancer Institute, the National Institutes of Health, 2015

Applying propensity score methods in psychiatry and psychology: Case study of suicide prevention using Danish registry data

• Johns Hopkins Medicine Department of Psychiatry Research Conference, 2014

Panel on patient centered outcomes research

Johns Hopkins Bloomberg School of Public Health, 2014

The effects of federal parity legislation on mental health service use among children with Autism Spectrum Disorders

 Center for Health Services and Outcomes Research and Wendy Klag Center for Autism and Developmental Disabilities, Johns Hopkins Bloomberg School of Public Health, 2015

PCORI and the Clinical Trials Advisory Panel: Perspectives from Year 1

- Prevention Science Methodology Group, 2015
- Center for Clinical Trials, Johns Hopkins University, 2015

The use of big data to assess and enhance external validity

- McCourt School of Public Policy, Initiative in Big Data, Georgetown University, 2015
- Interdisciplinary Seminar in Quantitative Methods, University of Michigan, 2015
- Department of Biostatistics, Institute of Psychiatry, King's College London, 2015
- Penn State University, Prevention Research Center and Methodology Center joint seminar series, 2016
- University of North Carolina at Chapel Hill, Causal Inference Working Group, December 2016
- Department of Statistics, University of Pennsylvania Wharton School of Business, December 2016

Using propensity scores with complex survey data

- National Center for Health Statistics, Hyattsville, MD, 2015
- Westat, Rockville, MD, 2015

Confronting unobserved confounding by using sensitivity analyses in non-experimental studies in education and health policy

Mathematica Policy Research, Inc., Washington, DC, 2015

Using administrative data to estimate causal effects

• The Health Foundation, London, England, 2015

Using synthetic control groups to estimate the effects of policy changes

Mathematica Policy Research, Inc., Washington, DC, 2015

ADDITIONAL INFORMATION

Personal statement of research and research objectives

Trained as a statistician, my primary research interests are in the development and use of methodology to better design and analyze the causal effects of public health and educational interventions. In this way I hope to bridge statistical advances and research practice, working with mental health and educational researchers to identify and solve methodological challenges.

I am particularly interested in the trade-offs in different designs for estimating causal effects, especially in terms of improving internal validity of non-experimental studies and external validity of randomized studies. This translates into two primary research areas. First, one of my primary research areas is in the use of propensity score methods for estimating causal effects in non-experimental studies (essentially as a tool to improve internal validity and reduce confounding). My interests in this area include providing advice for researchers in terms of best practice for estimation, diagnostics, and use of propensity score methods. This also includes investigation of how to handle complexities in propensity score methods, including multilevel data settings, covariate measurement error, and complex survey data. My second primary research area is in methods to assess and enhance the external validity (generalizability) of randomized trial results and enable policymakers to determine how applicable the results of a particular randomized study are to their own target population. I also have interests in handling complexities in randomized experiments, in particular missing data and non-compliance.

The applied areas I focus on include autism, the long-term consequences of adolescent substance abuse, education, mental health services and systems, and the effects of health care reform models on mental health service use.

Keywords

Bayesian modeling, biostatistics, causal inference, external validity, generalizability, multi-level modeling, observational study, prevention research, propensity scores