

Eric Andrew Lauer
Curriculum Vitae (*Prepared 8-30-16*)

Project Research Specialist II
University of New Hampshire
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Education

PhD, Epidemiology

2008-Present

University of Medicine and Dentistry of New Jersey, Piscataway, New Jersey

- Doctoral Candidate
- GPA: 3.86
- Thesis topic: Disability & Health

MPH, Quantitative Methods

2008

University of Medicine and Dentistry of New Jersey, Newark, New Jersey

- GPA: 4.0
- Fieldwork Title: Distribution of Brain Weights in Autistic Individuals
- Summary: Data was taken from donated brain tissue from individuals with a primary diagnosis of autism in the Autism Tissue Program. The distribution of brain weights of a cohort of autistic individuals was compared to the brain weight distribution of a sample of healthy controls. A significant difference in age-adjusted brain weight was observed between cases and controls overall and within gender.

Premedical Sciences

2001-2003

Harvard Extension School, Cambridge, Massachusetts

AB, Psychology

2000

Harvard University, Cambridge, Massachusetts

Special Training and Recognition: Grants, Fellowships, Scholarships and Awards

Air Pollution Environmental Research Grant (APERG Scholarship)

2009-2010

Department of Epidemiology, School of Public Health, University of Medicine and Dentistry of New Jersey, Piscataway, New Jersey

- A rigorous methodology was established for systematically reviewing candidate SNPs for abnormal vascular platelet and antioxidant function with sufficient frequencies using the National Library of Medicine's Human Genome Resources.
- Two SNPs, related to the NOS3 gene, were genotyped in the study population with biological ties to platelet function and vascular NO production. This data was linked to the previously established platelet marker database associated with particulate matter for subsequent analyses.
- Descriptive, parametric (mixed regression) and non-parametric (Fisher) analytic methods were conducted with the lead statistician for analysis of endpoint, pollution, and SNP associations (*see the section below entitled 'Abstracts and Posters'*).

Research Fellowship

Summer 2007

New Jersey Medical School, University of Medicine and Dentistry of New Jersey, Newark, New Jersey

- Conducted interviews with physicians regarding their opinions on conducting breast, obstetric and gynecological exams on obese woman (*see abstracts and posters below*)
- An iterative interviewing style was utilized in order to have a flexible process to gather as much information as possible depending on the views and content presented by the physicians

Scholarship for Masters in Public Health

2004-2007

School of Public Health, New Jersey Medical School, University of Medicine and Dentistry of New Jersey, Newark, New Jersey

Mental Health and Developmental Disabilities Clinical Research**2002-2003****Training Program Fellowship***Children's Hospital, Harvard Medical School, Boston, Massachusetts*

- Attended weekly lectures on international mental health and developmental disabilities topics presented by local and visiting specialists as well as the fellowship participants, specific to condition and region of the world
- Presented an oral and written summary of the developmental relationship between craniofacial dysmorphology (such as enlarged head circumference and orbital width) and autism, schizophrenia and bipolar disorder

Harvard College Research Program Grants**1999-2000***Harvard University, Cambridge, Massachusetts*

- Funding was provided to complete student-initiated research with faculty guidance

Dean's List**1997-2000***Harvard University, Cambridge, Massachusetts***Research Experience**

Project Research Specialist**2011-Present***Institute on Disability, University of New Hampshire, Durham, New Hampshire*

- Focus: Disability, Health and Employment
- Contribute to ongoing research efforts, including study design, methodology and analysis as well as writing papers, abstracts and presentations. Additional contributions include dissemination materials.
- Calculate the estimates for the Health People objectives DH-15, Reduce Unemployment among people with disabilities, and DH-16, Increase employment among people with disabilities for the Centers for Disease Control and Prevention.
- Statistical analysis utilizing large nationally representative secondary datasets including but not limited to the Current Population Survey, American Community Survey, National Health Interview Survey and Medical Expenditure Panel Survey
- Programmed and validated an estimation technique involving iterative repeated weights to calculate standard errors for survey data
- Outcomes include disability status, employment status, income, job type, hours worked per week and weeks worked per year
- Duties include contributing content to grants, papers and abstracts, SAS computer programming, database creation and validation and research and literature reviews

Student Assistant**2008-2010***Department of Epidemiology, School of Public Health, University of Medicine and Dentistry of New Jersey, Piscataway, New Jersey*

- Focus: Cardiopulmonary effects of air pollution in healthy young adult and diabetic subjects
- Contributed to panel studies at the design, implementation and analytic level
- Statistical models utilized included longitudinal, mixed regression, linear, categorical and nonparametric with specific attention to repeated-measures or cohort analyses
- Exposures included particulate matter (PM_{2.5-10}), diesel exhaust, secondary organic aerosols and data maintained by the Environmental Protection Agency Air Quality Systems files on ambient air constituents (particulate matter (PM_{2.5-10}), carbon monoxide, ozone, and nitric oxide from various monitoring sites)
- Outcomes included myocardial infarction, heart rate and biomarkers for platelet, nitrate, nitrite, von Willebrand factor and endothelial responses

- Duties included SAS computer programming, database quality assurance and quality control, research and literature reviews, participation in weekly group research meetings, and attendance of seminars on current research topics (usually on cardiopulmonary effects of air pollution)
- Work culminated in publication, poster, and abstract submission

Analyst

2007

Bloustein Center for Survey Research, Edward J. Bloustein School of Planning and Public Policy, Rutgers University, New Brunswick, New Jersey

- Focus: The Youth Risk Behavior Study (YRBS) focusing on drug and substance use among high school-aged children in New Jersey
- Duties included coding, evaluating, and analyzing responses in SPSS
- Assistance culminated in a final manuscript, including text and figures, for review and publication for New Jersey

Research Assistant

2002-2003

Department of Psychiatry, Laboratory of Neuroscience, Clinical Neuroscience Division, Harvard Medical School, VAMC-Brockton, Massachusetts

- Focus: Examining Midline Development in Schizophrenia
- Mapped structure of the hippocampus and amygdale using specialized software (that allows for the 3D loading and viewing of MRIs) to compare individuals with and without (normal controls) schizophrenia
- Completed volumetric and morphologic analyses to compare structures within and between groups using 3D digital MRI scans of human skulls and brains (MRIs that are integrated along their sagittal, axial, and coronal view for a three-dimensional viewing)

Research Assistant

2001-2004

Eunice Kennedy Shriver Center, University of Massachusetts Medical School, Waltham, Massachusetts

- Focus: Craniofacial dysmorphology and psychiatric and developmental conditions
- Reliability and accuracy on over 40 different craniofacial measurements and techniques were validated against the methods of Leslie G Farkas, a founder of modern Craniofacial Anthropology
- Analytic work including descriptive and basic inferential statistical analyses involving SPSS, STATA, and STATEXACT computer programming
- Explanatory variables included continuous human anthropometric measurements (head and/or body width, length, and circumference, etc.)
- Outcomes included Autism, Intellectual and Developmental Disabilities, Schizophrenia, Bipolar Disorder and Depression
- Duties included conducting detailed craniofacial measurements on adults with schizophrenic, bipolar, and normal controls, and on people with autism of all ages, lab management, database management including quality assurance and control, research and literature reviews

Research Skills: Computing Expertise

- Statistical Analysis Software (SAS)
 - Statistical Package for the Social Sciences (SPSS)
 - STATA: Data Analysis and Statistical Software (STATA)
 - STATXACT Statistical Analysis Software (STATXACT)
 - NCBI gene and SNP databases
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Teaching Experience

Introduction to Biostatistics

Spring 2014

Adjunct Faculty, Department of Health Management and Policy, College of Health and Human Services, University of New Hampshire, Durham, New Hampshire

Epidemiology Research Methods

Fall 2009

Graduate Assistant, Department of Epidemiology, School of Public Health, University of Medicine and Dentistry of New Jersey, Piscataway, New Jersey

Principles of Epidemiology

Fall 2009

Graduate Assistant, Bloustein Center for Survey Research, Edward J. Bloustein School of Planning and Public Policy, Rutgers University, New Brunswick, New Jersey

Introduction to Biostatistics

Fall 2005, Spring 2006 & Fall 2007

Teaching Assistant, Department of Epidemiology, School of Public Health, University of Medicine and Dentistry of New Jersey, Newark, New Jersey

Publications

Houtenville AJ, Brucker DL, and **Lauer EA**. (2015). Annual Compendium of Disability Statistics: 2014. Durham, NH: University of New Hampshire, Institute on Disability.

Brucker DL, Houtenville AJ, **Lauer EA**. (2015). Using Sensory, Functional, and Activity Limitation Data to Estimate Employment Outcomes for Working-Age Persons With Disabilities in the United States. *Journal of Disability Policy Studies*.

Reichard A, Saunders MD, Saunders RR, Donnelly JE, **Lauer E**, Sullivan DK, and Ptomey L. (2015). A comparison of two weight management programs for adults with mobility impairments. *Journal of Disability & Health*. 8(1):61-9.

Houtenville AJ, Brucker DL, and **Lauer EA**. (2014). Annual Compendium of Disability Statistics: 2014. Durham, NH: University of New Hampshire, Institute on Disability.

Lauer EA, Corner BD, Li P, Beecher RM, and Deutsch CK. (2002). 3D Repeated-measure validation of craniofacial metrics from three-dimensional surface scans: application to medical genetics. *SPIE's Proceedings, Three-Dimensional Image Capture and Applications* 5, 177-181.

Deutsch CK, **Lauer EA**, Patel N, and Mehta C. (2001). Exact Nonparametric Statistical Methods in Behavior Analysis. *Experimental Analysis of Human Behavior Bulletin*, 19: 19-21.

Presentations

Lauer EA, Houtenville A (2016). Prevalence Estimates of Disability Types across National Surveys. 144th APHA Annual Meeting. Denver, Colorado, October 29th-November 2nd.

Houtenville A, **Lauer EA** (2016). Comparing Prevalence Estimates for People with Disabilities in National Surveys: 2009--2014. Joint Statistical Meetings, American Statistical Association. Chicago, Illinois, July 30th-August 4th.

Lauer EA, Houtenville A. (2016). Integrating the Aging and Disability Focus of the Administration for Community Living using Statistics from National Surveys. NARRTC 38th Annual Conference. May 3-4th.

Lauer EA, Brucker DL, Houtenville A (2015). Distribution of Prevalence Estimates of People with Disabilities Across National Surveys. 143rd APHA Annual Meeting. Chicago, Illinois, October 31st-November 4th.

Lauer EA, Lauer E (2015). National Healthcare Utilization Patterns Among People with Disabilities. 143rd APHA Annual Meeting. Chicago, Illinois, October 31st-November 4th.

Lauer EA, Houtenville A. (2015). The Distribution of Prevalence Estimates of People with Disabilities Across National Surveys. In Houtenville A (Chair), *Using Nationally Representative Datasets to Identify and Learn About the Lived Experiences of People with Disabilities*. Symposium conducted at the NARRTC 37th Annual Conference. April 30th-May 1st.

Houtenville A, **Lauer EA**, Reichard A, Lauer E, Bonardi A (2013). Health of people with intellectual disabilities: Can it be surveilled through existing data? 141st APHA Annual Meeting. Boston, Massachusetts, November 2nd-6th.

Lauer EA, Houtenville A, Ruiz A. (2013). Disability Surveillance using National Household Surveys in the United States: Where have we been and where are we going? Seminar Presenter for the Social Dimensions of Health Institute, University of Dundee, Scotland. March 25th, 2013.

Houtenville A, **Lauer EA**, Ruiz A. (2012). Interacting With State And Local Policy Makers To Translate Disability Statistics. NARRTC 34th Annual Conference. Advancing and Sustaining Research in Disability and Rehabilitation. April 26-27th.

Abstracts and Posters

Lauer EA, Houtenville A (2016). How the Question Sets Matter: Comparing Estimates of Prevalence and Disparities Using Federal and International Disability Question Sets in National Surveillance. 144th APHA Annual Meeting. Denver, Colorado, October 29th-November 2nd.

Lauer EA, Houtenville A (2016). Impact of Question Phrasing and Proxy on Estimates Using Standardized Disability Identifiers in National Surveys. 144th APHA Annual Meeting. Denver, Colorado, October 29th-November 2nd.

Brucker D, **Lauer EA**, Sevak P, Houtenville A. (2013). The Influence of Sensory, Functional and Activity Limitations on Employment Disparities. 30th Annual Research Meeting of the AcademyHealth. Baltimore, Maryland, June 23rd-25th, 2013.

Lauer EA, Kipen HM, Gandhi S, Ohman-Strickland P, Philipp C, Rich DQ. (2009). Acute Platelet Responses to Ambient Particulate Matter. 21st Conference of the International Society for Environmental Epidemiology. Dublin, Ireland.

Kipen HM, Gandhi S, Ohman-Strickland P, Choi H, Laskin DL, Rich D, **Lauer EA**, Zhang J, Philipp CS. (2009). Increase in Platelet Count but Absence of Platelet Activation Following 2 Hours of Diesel Exhaust. American Thoracic Society Annual Conference, San Diego, CA, May 20, 2009. Am J Respir Crit Care Med 179; 2009:A6104.

Gandhi S, Pettit AP, Ohman-Strickland P, Gow A, Zhang J, **Lauer EA**, Kipen HM. (2009). Two Methods for Measurement of Acute Changes in Endothelial Function Following Diesel Exhaust Inhalation. American Thoracic Society Annual Conference, San Diego, CA, May 18, 2009. Am J Respir Crit Care Med 179; 2009:A3164.

Gandhi S, Ohman-Strickland P, Gow A, Zhang J, **Lauer EA**, Pettit A, Rich DQ, Kipen H. (2008). Two Methods for Measurement of Acute Changes in Endothelial Function Following Diesel Exhaust Inhalation. NIEHS Rich DQ, Laumbach R, Gandhi S, Amorosa L, Schneider S, Zhang J, Ohman-Strickland P, Gong J, Lelyanov O, **Lauer EA**, Kipen HM (2008). Acute Changes in heart rate variability in Type II diabetics following a highway traffic exposure. NIEHS Center Director's Meeting. Philadelphia, Pennsylvania.

Lauer EA, Ferrante J. (2008). Physician Barriers to Cancer Screening in Obese Women. Summer Student Research Presentation, New Jersey Medical School, August 2007.

Lauer EA, Brimacombe M, Picket J, Xiu, E. (2007). Distribution of Brain Weights in Autistic Individuals. Annual Research Day, School of Public Health, University of Medicine and Dentistry of New Jersey, NJ, April 2007.

Deutsch CK, Levy DL, **Lauer EA**, Krastoshevsky O, Saunders E, Coleman MJ, Price SF, Matthyse S, Holzman PS. (2003). Coherence of Co-familial Phenotypes in Schizophrenia: Craniofacial Dysmorphology, Thought Disorder, and Smooth Pursuit Eye Movements. International Congress on Schizophrenia Research Meeting, Colorado Springs, CO, March 2003.

Saunders E, Richman A, **Lauer EA**, Deutsch CK. (2003). Frontonasal-maxillary dysmorphology in schizophrenia: Palatal midline anomalies among probands and their relatives International Congress on Schizophrenia Research Meeting, Colorado Springs, CO, March 2003.

Lauer EA, Corner B, Li P, Deutsch CK. (2002). 3D Repeated-measure validation of craniofacial metrics from three-dimensional surface scans: application to medical genetics. SPIE's Proceedings, Three-Dimensional Image Capture and Applications Annual Meeting, San Jose, CA, January, 2002.

- Deutsch CK, Saunders E, **Lauer EA**, Joseph R, Tager-Flusberg H. (2002). Quantitative Assessment of Craniofacial Dysmorphology in Autism and SLI. Proceedings, International Meeting for Autism Research, Orlando, FL, November 2002.
- Deutsch CK, Hodge S, Tager-Flusberg H, Folstein S, Steele S, **Lauer EA**, Saunders E, Harris GJ, Herbert MR, Reading S, Sherman J. (2001). Macrocephaly and brachycephaly in autism: Correspondence of brain and cranial size/shape. Proceedings, International Meeting for Autism Research, Vancouver, Canada, November 2001.
- Deutsch CK, **Lauer EA**, Altobelli D, Price SFR. (2001). Dysmorphology of Embryonic Primordia Derivatives in Schizophrenia: Neurodevelopmental and Genetic Models. International Congress on Schizophrenia Research Meeting, Whistler, British Columbia, Canada, April 28-May 2, 2001.