

DAVID BRUCE BRAUDT

Curriculum Vitae

July 2022

Center for Health Outcomes and Population Equity (HOPE)
Huntsman Cancer Institute
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RESEARCH INTERESTS

Population Health and Aging, Social Stratification, Quantitative Methods with a particular interest in Structural Equation Models with Latent Variables, and the integration of Social Science and Omics research and data.

EDUCATION

Postdoc	2021	Institute for Behavioral Genetics & Institute of Behavioral Science University of Colorado Boulder <i>Distinction: Butler-Williams Scholar, National Institute on Aging (NIA)</i>
Ph.D.	2019	Department of Sociology University of North Carolina at Chapel Hill <i>Distinction: Howard Odum Award for Excellence</i> <i>Dissertation Committee: Kenneth A. Bollen (Co-Chair), Kathleen Mullan Harris (Co-Chair), Robert A. Hummer, Allison Aiello, Daniel W. Belsky</i>
M.S.	2014	Department of Sociology Brigham Young University
B.A.	2011	Department of Economics Brigham Young University <i>Minors: Mathematics, International Development</i> <i>Distinctions: Highest University Honors; Robert K. Thomas Scholar</i>

EMPLOYMENT

2021 – Present	<i>Research Scientist</i> , Center for Health Outcome and Population Equity (HOPE), Huntsman Cancer Institute, University of Utah Activities include: <ul style="list-style-type: none">• Providing research & statistical consulting & support for Center projects and Scholar led papers across all stages of development (e.g., design, power analyses, execution, and publication)• Preparing and cleaning of study data for analysis• Development of data management and analysis best practices and pipelines
2022 – Present	<i>Adjunct Professor</i> , Doctorate of Business Administration Program, Lewis College of Business, Brad D. Smith Schools of Business, Marshall University Activities include:

- Providing instruction for advanced statistical methods, focused on extensions of simultaneous equation modeling and structural equation modeling with latent variables, using Stata, R, and Mplus.

2019 – 2021

Postdoctoral Research Fellow, Institute of Behavioral Science & Institute for Behavioral Genetics, University of Colorado Boulder

Activities include:

- Developing protocols for genetic data processing and polygenic score calculation
- Leading the exploration of a novel methodology to calculate polygenic scores
- Mentoring predoctoral trainees on research and analysis best practices
- Continued training in population and statistical genetic research and methods as part of the NIA T32 training grant (T32 AG052371)

2018 – 2019

Graduate Student Research Assistant, The National Longitudinal Study of Adolescent to Adult Health (Add Health), Carolina Population Center

Activities include:

- Creating the first and second release polygenic scores for Add Health. Including the development of a multi-language pipeline to clean, process, use, and organize large genetic data files spanning Linux, R, Python, and Stata to create a harmonized set of polygenic scores across two NIH funded studies: the Health and Retirement Study (HRS) and Add Health.

2012 – 2014

Statistical Consultant, The Research Support Center, Brigham Young University

Activities include:

- Providing research & statistical consulting for faculty & graduate students
- Developing and teaching statistical workshops

PEER REVIEWED PUBLICATIONS

- 2021 Davidson, Trent, **David B. Braudt**, Robert Keers, Elham Assary, Kathleen Mullan Harris, and Jason D. Boardman. “Genome -Wide Stress Sensitivity Moderates the Stress-Depression Relationship in a Nationally Representative Sample of Adults.” *Scientific Reports* 11(1):20332.
<https://pubmed.ncbi.nlm.nih.gov/libproxy.lib.unc.edu/34645846/>
- 2020 Dollar, Nathan, Iliya Gutin, Elizabeth M. Lawrence, **David B. Braudt**, Samuel H. Fishman, Richard G. Rogers, Robert A. Hummer. “The Persistent Southern Disadvantage in U.S. Early Life Mortality, 1965-2014.” *Demographic Research*.
<https://pubmed.ncbi.nlm.nih.gov/32317859/>
- 2019 **Braudt, David B.**, Elizabeth Lawrence, Andrea Tilstra, Robert A. Hummer, and Richard G. Rogers. “Family Socioeconomic Status and Early Life Mortality Risk in the United States.” *Maternal and Child Health Journal*. 23(10): 1382-91.
<https://pubmed.ncbi.nlm.nih.gov/31273497/>
- Nagata, Jason, **David B. Braudt**, Benjamin Domingue, Kirsten Bibbins-Domingo, Andrea Garber, Scott Griffiths, Stuart Murray. “Genetic Risk, Body Mass Index, and Weight Control Behaviors: Unlocking the Triad.” *International Journal of Eating Disorders* 52(7):825-33.
<https://www.ncbi.nlm.nih.gov/pubmed/30994932>

- 2018 **Braudt, David B.** “Sociogenomics in the 21st Century: An Introduction to the History and Potential of Genetically-Informed Social Science.” *Sociology Compass* 12(10).
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6201284/>
- Muir, Jonathan A., **David B. Braudt**, Jeffrey Swindle, Jeremy Flaherty, and Ralph B. Brown “Cultural Antecedents to Community: An Evaluation of Community Experience in the United States, Thailand, and Vietnam.” *City & Community* 17(2):485–503.
<https://www.ncbi.nlm.nih.gov/pubmed/30197582>
- 2016 Dufur, Mikaela, Toby L. Parcel, John Hoffmann, and **David B. Braudt.** "Who Has the Advantage? Race and Sex Differences in Returns to Social Capital at Home and at School." *Research in Social Stratification and Mobility* 45:27-40.
<https://www.ncbi.nlm.nih.gov/pubmed/27594731>
- 2015 Hoffmann, John P., Mikaela J. Dufur, **David B. Braudt**, Toby Parcel, and Karen Spence. “Examining the Effects of Family and School Social Capital on Delinquent Behavior.” *Deviant Behavior* 36(7): 511-526.
- Child, Curtis, Eva Witesman, and **David B. Braudt.** “Sector Choice: How Fair Trade Entrepreneurs Choose Between Nonprofit and For-Profit Forms.” *Nonprofit and Voluntary Quarterly* 44(4): 832-851.

PAPERS UNDER REVIEW

Dufur, Mikaela, Toby L. Parcel, **David B. Braudt**, and John P. Hoffmann. “Is Social Capital Durable? How Family and School Bonds Influence College Enrollment and Completion.”

OTHER PUBLICATIONS

- 2020 **Braudt, David B.** and Kathleen Mullan Harris. “Polygenic Scores (PGSs) in the National Longitudinal Study of Adolescent to Adult Health (Add Health) – Release 2.” Chapel Hill, NC: Carolina Population Center, University of North Carolina at Chapel Hill.
- 2018 **Braudt, David B.** and Kathleen Mullan Harris. “Polygenic Scores (PGSs) in the National Longitudinal Study of Adolescent to Adult Health (Add Health) – Release 1.” Chapel Hill, NC: Carolina Population Center, University of North Carolina at Chapel Hill.
- 2015 Ward, Carol and **David B. Braudt.** “Sustaining Indigenous Identity Through Language Development: Comparing Indigenous Groups Language Instruction in Two Contexts.” pp. 139-170 in *Indigenous Education: Language, Culture, and Identity*. edited by W. James Jacob, Sheng Yao Cheng, and Maureen K. Porter. New York, NY: Springer.
- 2011 **Braudt, David B.** and Ralph B. Brown. “What’s in a Name? Defining Sustainability and Some Consequences of Definitions.” pp 51-53 in *G20 Summit Magazine*, University of Utah.

WORKING PAPERS

- Bollen, Kenneth A. and **David B. Braudt.** “Testing the Dimensionality of Latent Measures with a New Model Implied Instrumental Variable (MIIV) Test.”
- Potter, Lindsey, **David B. Braudt**, et al. “Predictors of Nicotine Patch Adherence During a Quit Attempt Among Low SES, African-American, and Black Residents of the Houston TX area.

Braudt, David B. “Who Makes the Grade? A Gene-Environment Analysis of the Mechanisms of Educational Attainment in the 21st Century”

Braudt, David B., Benjamin W. Domingue, Jason Boardman, Kathleen Mullan Harris, and Daniel W. Belsky.
“Investigating the Changing Characteristics of Individuals at the Low-End of the Educational Continuum”

ACADEMIC HONORS

2020	Butler-Williams Scholar, National Institute on Aging
2019	Howard Odum Award for Excellence, Department of Sociology, University of North Carolina at Chapel Hill
2011	Keynote speaker, Honors graduation ceremony, Brigham Young University
2010 - 2011	Robert K. Thomas Scholar, Brigham Young University
2009	Pembroke-Kings Programme Participant, University of Cambridge

GRANTS, AWARDS, & FELLOWSHIPS

2019 – 2021	T32 AG052371. “Interdisciplinary Training in Demography and Genetics.” Jason Boardman PI. Role: Postdoctoral Fellow Total costs: \$595,434
2018 – 2021	R03 HD097630. “Add Health GWAS Data: User Support and Research Tools Enable Widespread Access.” Kathleen Mullan Harris and Christy Avery PIs Role: Unpaid Consultant Total costs: \$77,750
2020	“Social, Genetic, and Behavioral Mechanisms of Health and Aging.” Grant Development Award, University of Colorado Population Center. Role: PI Total costs: \$4,000
2018 – 2019	R01 HD073342. “Add Health: A Genotype and Phenotype Resource for the Global Scientific Community.” NICHD. Kathleen Mullan Harris PI Role: Graduate Research Assistant Total costs: \$2,489,712
2014 – 2016; 2017 – 2018	T32 HD007168. “Population Research Training.” Carolyn Halpern PI, awarded to the Carolina Population Center Role: Predoctoral Fellow with yearly re-application
2013	Graduate Studies Research Fellowship, Brigham Young University. “Being Healthy Online: A Comparison of the Effects of Online and Offline Social Capital on Self-Reported Health.” \$15,000 Rural Sociological Society Master’s Thesis Research Award. “A Rural/Urban Comparison of the Wireless Connection: A Multilevel Structural Equation Analysis of the Effects of Online and Offline Social Capital on Community Attachment and Satisfaction in Montana.” \$1,000

- 2012 Graduate Studies Research Fellowship, Brigham Young University. "A Rural/Urban Comparison of the Wireless Connection: A Multilevel Structural Equation Analysis of the Effects of Online and Offline Social Capital on Community Attachment and Satisfaction in Montana." \$15,000
- 2010 Federal Pell Grant, Awarded through Brigham Young University.
- Robert K. Thomas Scholarship, Brigham Young University. Awarded to up to ten undergraduate students across the university for excellence in research and academic performance. \$1,105
- Honors Research Grant, Brigham Young University. "Defining Sustainability in Rural Agricultural Development: The Argument of Structural Mortality vs. Economic Feasibility, Drawn from a Study of the Royal Project Foundation of Northern Thailand." Principal Investigator. \$1,000
- Kennedy Center Research Grant, Brigham Young University. "The Royal Project Foundation of Northern Thailand." Co-Investigator with Ralph B. Brown PI. \$5,000
- Marigold N. Saunders Scholarship, Brigham Young University. \$2,210
- Academic Scholarship, Brigham Young University. \$2,146
- 2009 Federal Pell Grant, Awarded through Brigham Young University.
- Alvina Soffel Barrett Scholarship, Brigham Young University. \$2,146
- Honors International Study Scholarship, Brigham Young University. \$1,000
- Mae Covey Gardner International Study Scholarship, Brigham Young University. \$500
- Academic Scholarship, Brigham Young University. \$2,040
- 2008 Glenn E. and Olive W. Nielson Scholarship, Brigham Young University. \$4,080

INVITED TALKS

- 2022 "Polygenic Scores in the National Longitudinal Study of Adolescent to Adult Health." Bi-Annual NIH Add Health Conference, Chapel Hill, NC.
- 2019 "Who Makes the Grade? A Gene-Environment Analysis of the Mechanisms of Educational Attainment in the 21st Century." Carolina Population Center and Duke University Population Research Institute Demography Daze, Chapel Hill, NC.
- "Polygenic Scores in the National Longitudinal Study of Adolescent to Adult Health." Population Association of America Workshop on Add Health Data, Austin, TX.
- 2018 "Polygenic Scores in the National Longitudinal Study of Adolescent to Adult Health." Bi-Annual NIH Add Health Conference, Bethesda, MD.

SELECTED CONFERENCE PRESENTATIONS

- 2019 **Braudd, David B.**, Benjamin W. Domingue, Jason Boardman, Kathleen Mullan Harris, and Daniel W. Belsky. "Investigating the Changing Characteristics of Individuals at the Low-End of the Educational Continuum." Annual meeting for the Integrating Genetics and the Social Sciences conference. Boulder, CO.
- Braudd, David B.** "Who Makes the Grade? A Gene-Environment Analysis of the Mechanisms of Educational Attainment in the 21st Century." Annual Meeting of the *Population Association of American*. Austin, TX.
- Braudd, David B.**, Elizabeth Lawrence, Andrea Tilstra, Robert A. Hummer, and Richard G. Rogers. "Associations between Early Life Mortality and Socioeconomic Status in the United States." Annual Meeting of the *Population Association of American*. Austin, TX.
- 2018 **Braudd, David B.** and Kathleen Mullan Harris. "Polygenic Penetrance of Genetics in the 21st Century." Annual Meeting of the *Population Association of American*. Denver, CO.
- 2017 Bollen, Kenneth A. and **David B. Braudd**. "Testing the Dimensionality of Latent Measures with a New Model Implied Instrumental Variable (MIIV) Test." Midyear Meeting of the *Methods Section of the American Sociological Association*, Chicago, IL.
- 2016 Dufur, Mikaela, Toby L. Parcel, **David B. Braudd**, and John Hoffmann. "How Durable is Social Capital? Family and School Bonds and College Enrollment and Completion." Annual Meetings of the *American Sociological Association*. Seattle, WA.
- Braudd, David B.** "Decomposing the Mechanisms of Social Stratification and Mobility: An Integration of the ACE and the Status Attainment Models in the Case of Academic Achievement." Annual Meeting of the *Population Association of American*. Washington, D.C.
- 2015 Dufur, Mikaela, Toby L. Parcel, John Hoffmann, and **David B. Braudd**. "Race and Sex Differences in Returns to Social Capital at Home and at School." Annual Meetings of the *American Sociological Association*. Chicago, IL.
- 2013 **Braudd, David B.** "A Rural/Urban Comparison of the Wireless Connection: A Multilevel Structural Equation Analysis of the Effects of Virtual and Community Social Capital on Community Attachment and Satisfaction in Montana." Annual Meetings of the *Rural Sociological Society*. New York, NY.
- Dufur, Mikaela, Toby L. Parcel, John P. Hoffmann, **David B. Braudd**. "Social Capital at Home and at School: Long-term Effects on Academic Attainment." Annual meetings of the *Society for Longitudinal and Life Course Studies*. Amsterdam, Netherlands.
- Child, Curtis, Eva Witesman, and **David B. Braudd**. "Institutional Choice Redux: How Fair Trade Entrepreneurs Choose Between Nonprofit and For-Profit Forms." Annual Meetings of the *American Sociological Association*. New York, New York.
- 2011 **Braudd, David B.** and Ralph B. Brown. "Practical Applications of Rural Agricultural Development: An Exploratory Analysis of the Royal Project Foundation of Northern Thailand." *International Conference on Managing Sustainable Development or Rural Economy and Agri Business*. Banaras Hindu University, Varanasi, India.

TEACHING EXPERIENCE (* = graduate level course)

Primary Instructor

2022 *Doctorate of Business Administration 713: Business Quant III: Introduction to Structural Equation Modeling with Latent Variables. Marshall University.

2017 Sociology 252: Data Analysis. University of North Carolina at Chapel Hill.

Teaching Assistant

2016 – 2018 *Sociology 717: Structural Equation Models with Latent Variables. University of North Carolina at Chapel Hill. Taught by Kenneth A. Bollen.

2017 *Latent Growth Curve Models (LCM): A Structural Equation Modeling Approach. Inter-University Consortium for Political and Social Research (ICPSR). Taught by Kenneth A. Bollen.

Sociology 252: Social Science Research Methods. University of North Carolina at Chapel Hill. Taught by Mosi Ifatunji.

2014 – 2015 *Structural Equation Models with Latent Variables: An Introduction. Inter-University Consortium for Political and Social Research (ICPSR). Taught by Kenneth A. Bollen.

2013 – 2014 *Sociology 706: Advanced Statistical Methods in the Social Sciences with an Emphasis on Structural Equation Modeling. Brigham Young University. Taught by Joseph Olsen.

2011 Economics 101: Introductory Economics. Brigham Young University. Taught by James R. Kearl.

2008 – 2010 Honors Colloquium in the Sciences: A Nine credit-hour, Two Semester, Honors Course Covering all GE Requirements in the Physical, Biological, and Natural Sciences. Brigham Young University. Taught by William Dibble, Wilfred Griggs, Paul R. Evans, Otis H. Willoughby, and Steve Turley.

- Article highlighting the course: <https://magazine.byu.edu/article/adventures-in-science/>

OTHER PROFESSIONAL EXPERIENCE & SERVICE

Professional Development Activities

2015 – Present Special Sworn Status, U.S. Census Bureau.

2020 & 2021 International Workshop on Statistical Genetic Methods for Human Complex Traits. Institute for Behavioral Genetics, University of Colorado Boulder.

2016 Russell Sage Foundation Summer Institute in Social Science Genomics. Rutgers University. Organized by Daniel Benjamin and David Cesarini.

Academic and Professional Service

2019 Admissions Committee, Summer Undergraduate Internship Program, Carolina Population Center.

2016 – 2018 Pre-doctoral Mentor, Summer Undergraduate Internship Program, Carolina Population Center

2010 – 2011 Co-President, Honors Student Advisor Committee, Brigham Young University

2009 – 2010 Honors Symposium Director, Honors Student Advisor Committee, Brigham Young University

Ad hoc Reviewer

National Science Foundation, American Sociological Review, Demography, Biodemography, Social Forces, Journal of Adolescence, British Journal of Educational Psychology, Translational Psychiatry, Journal of family Issues, Health Equity, Journal of Psychiatric Research, Population Health Metrics

PROFESSIONAL ASSOCIATIONS

American Sociological Association, member

Population Association of America, member

Interdisciplinary Association for Population Health, member