# Drew H. Bailey, Ph.D. Curriculum Vitae

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# **RESEARCH INTERESTS**

Children's mathematical development Persistence and fadeout of the effects of educational interventions Causal inference in psychology

# **EDUCATION AND EMPLOYMENT**

2023-present	Professor, School of Education Department of Cognitive Sciences (by courtesy) Department of Psychological Science (by courtesy) University of California, Irvine
2023-2026	Chancellor's Fellow University of California, Irvine
2017-2023	Associate Professor, School of Education University of California, Irvine
2014-2017	Assistant Professor, School of Education University of California, Irvine
2012-2014	IES Postdoctoral Fellow, Developmental Psychology <b>Carnegie Mellon University</b> Advisor: Robert S. Siegler
2009-2012	Ph.D., Developmental Psychology University of Missouri Minor: Psychological Statistics and Methods Committee: David C. Geary (chair), Mark Flinn, Craig Palmer, Amanda Rose, Phillip Wood
2007-2009	M.A., Developmental Psychology <b>University of Missouri</b> Advisor: David C. Geary
2003-2006	B.A., Psychology, Minor: Linguistics University of Texas at Austin

# **FUNDING**

EF+Math Program, Prototyping Track, AERDF. 2020-2023. Fractions in the School Yard: Play-based Executive Function and Math Learning, Co-PI, \$1,250,000

NSF. Deepening Computational Thinking for English Learners by Integrating Community-Based Environmental Literacy. 2023-2027, Co-I, \$2,000,000

Jacobs Early Career Research Fellowship. 2019-2021. \$150,000

CIFAR and the Jacobs Foundation. 2021. Leveraging the full potential of longitudinal data analysis: Cross-disciplinary workshop series. Co-Investigator (Lead-Kou Murayama, University of Tübingen). CDN \$50,000

NICHD Program Award (P01). "Human capital interventions across childhood and adolescence." 2015-2016, Co-Investigator (PD-Greg Duncan), \$4,667,050.

# **HONORS AND AWARDS**

2019-2021	Jacobs Early Career Research Fellowship
2020	Fellow, Griffin Applied Economics Incubator, University of Chicago
2015, 2018, 2019, 2020, 2021	Outstanding Reviewer Award, AERA Open
2016	Mensa Education & Research Foundation and Mensa International, Ltd., Award for Excellence in Research
2015-2016	Dean's Honoree for Teaching Excellence, UC Irvine
2015	Rising Star, Association for Psychological Science
2011	Graduate Student Excellence Award Department of Psychological Sciences, University of Missouri
2011	Raymond White Dissertation Year Fellowship (\$5000), University of Missouri
2010	Fellow, John Merck Fund Summer Institute on the Biology of Developmental Disabilities, Cornell University

## **PUBLICATIONS**

# PEER-REVIEWED JOURNAL ARTICLES

- J74 Silver, A. M., Alvarez-Vargas, D., **Bailey, D. H.**, & Libertus, M. (in press). Assessing the association between parents' math talk and children's math performance: A preregistered meta-analysis. *Journal of Experimental Child Psychology*.
- J73 Cristancho, J. C., **Bailey, D. H.**, Duncan, G. J., Molano, A., Harker, A., & Norza, E. (2024). Effects of homicide timing on test scores: Quasi-experimental evidence from two cities in Colombia. *Child Development*.
- Wan, S., Lauermann, F., **Bailey, D. H.**, & Eccles, J. S. (2023). Girls' Comparative Advantage in Language Arts Explains Little of the Gender Gap in Math-Related Fields: A Replication and Extension. *Proceedings of the National Academy of Sciences*, 120, e2305629120.
- J71 Aung, T., Hill, A, Hlay, J., Hess, C., Hess, M., Johnson, J., Doll, L., Carlson, S.M., Magdinec, C., González-Santoyo, I., Walker, R., Bailey, D., Arnocky, S., Kamble, S., Vardy, T., Kyritsis, T., Atkinson, Q., Jones, B., Koster, J., Burns, J., Palomo-Vélez, G., Tybur, J., Muñoz-Reyes, J., Choy, B.K.C., Li, N., Langenhoff, A., Klar, V., Batres, C., Bascheck, P., Schild, C., Penke, L., Pazhoohi, F., Kemirembe, K., Valentova, J.V., Varella, M.A.C., Borras-Guevara, M., Hodges-Simeon, C., Ernst, M., Garr, C., Chen, B., and Puts, D. (accepted). Effects of voice pitch on social perceptions vary with relational mobility and homicide rate. *Psychological Science*.
- Pages, R., **Bailey, D. H.**, & Duncan, G. J. (2023). The Impacts of Abecedarian and Head Start on Educational Attainment: Reasoning about Unobserved Mechanisms from Temporal Patterns of Indirect Effects. *Early Childhood Research Quarterly*, 65, 261-274.
- J69 Alvarez-Vargas, D., Braithwaite, D., Lortie-Forgues, H., Moore, M. M., Castro, M., Wan, S., Martin, E. A. & **Bailey**, **D. H.** (2023). Hedges, mottes, and baileys: causally ambiguous statistical language can increase perceived study quality and policy relevance. *PLoS ONE*, *18*: e0286403.
- J68 Alvarez-Vargas, D., Begolli, K. N., Choc, M., Acevedo-Farag, L. M., Bailey, D. H., Richland, L., & Bustamante, A. (2023). Fraction Ball impacts on student and teacher math talk and behavior. *Journal of Experimental Child Psychology*, 239, 105777.
- J67 Lee, H. R., Tang, X., Alvarez-Vargas, D., Yang, J. S., Bailey, D., Simpkins, S. D., Safavian, N., Gaspard, H., Salmela-Aro, K., Moeller, J., Eccles, J. S., & Wigfield, A. (2023). Networks and Directed Acyclic Graphs: Initial Steps to Efficiently Examine Causal Relations between Expectancies, Values, and Prior Achievement. Current Psychology, 1-17.

- Wan, S., Brick, T. R., Alvarez-Vargas, D., & **Bailey, D. H.** (2023). Triangulating on Developmental Models with a Combination of Experimental and Non-Experimental Estimates. *Developmental Psychology*, *59*, 216-228.
- Wan, S., Lauermann, F., **Bailey, D. H.**, & Eccles, J. S. (2023). Developmental Changes in Students' Use of Dimensional Comparisons to Form Ability Self-Concepts in Math and Verbal Domains. *Child Development*, 94, 272-287.
- Alvarez-Vargas, D., Wan, S., Fuchs, L. S., Klein, A., & **Bailey, D. H.** (2023). Design and Analytic Features for Reducing Biases in Skill-Building Intervention Impact Forecasts. *Journal of Research on Educational Effectiveness*, 16, 271-299.
- Frick, C., Blümm, M., Randall, N., Küçük, B., & **Bailey**, **D.** (2023). A reality check on research reproducibility in Open Science students' projects. *API Magazin*, 4(2).
- Chen, E., Jaeggi, S. M., & **Bailey, D. H.** (2022). No clear support for differential influences of visuospatial and phonological resources on mental arithmetic: A Registered Report. *Journal of Numerical Cognition*, *8*, 259-280.
- Wan, S., Lauermann, F., **Bailey, D. H.**, & Eccles, J. S. (2021). When do students begin to think that one has to be either a "math person" or a "language person"? A meta-analytic review. *Psychological Bulletin*, 147, 867–889.
- Bustamante, A. S., Begolli, K. N., Alvarez-Vargas, D., Bailey, D. H., & Richland, L. E. (2022). Fraction ball: Playful and physically active fraction and decimal learning. *Journal of Educational Psychology*, 114(6), 1307–1320.
- Qiu, K., Chen, E. H., Wan, S., & **Bailey, D. H.** (2021). A multilevel meta-analysis on the causal effect of approximate number system training on symbolic math performance. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 47,* 1820-1835.
- Pages, R., Protzko, J., & **Bailey**, **D. H.** (2021). The Breadth of Impacts from the Abecedarian Project Early Intervention on Cognitive Skills. *Journal of Research on Educational Effectiveness*, 1-20.
- **Bailey, D. H.,** Duncan, G. J., Murnane, R., & Au Yeung, N. (2021). Achievement Gaps in the Wake of COVID-19. *Educational Researcher*, 0013189X211011237.
- Wan, S., Bond, T. N., Lang, K., Clements, D. C., Sarama, J., & **Bailey, D. H.** (2021). Is intervention fadeout a scaling artefact?. *Economics of Education Review, 82*, 102090.
- Lai, J., Snyder, M.E., Vijaykumar, K. M., **Bailey, D. H.,** Martin, E.A. Shared and unique affective abnormalities in schizotypy dimensions (2022). *PsyCh Journal, Journal of the Chinese Academy of Sciences, Institute of Psychology, 11,* 149-162 doi: 10.1002/pchj.506
- **Bailey, D. H.,** Duncan, G. J., Cunha, F., Foorman, B. R., & Yeager, D. S. (2020). Persistence and Fade-Out of Educational-Intervention Effects: Mechanisms and Potential Solutions. *Psychological Science in the Public Interest*, 21(2), 55-97.

- McMullen, J., Lewis, R. W., & **Bailey**, **D. H.** (2020). Latent classes from complex assessments: What do they tell us?. *Learning and Individual Differences*, 83, 101944.
- **Bailey, D. H.,** Jenkins, M., & Alvarez-Vargas, D. (2020). Complementarities between Early Educational Intervention and Later Educational Quality? A Systematic Review of the Sustaining Environments Hypothesis. *Developmental Review*, 56, 100910.
- Brick, T. R., & **Bailey, D. H.** (2020). Rock the MIC: The Matrix of Implied Causation, a Tool for Experimental Design and Model Checking. *Advances in Methods and Practices in Psychological Science*, 2515245920922775.
- J50 Chen, E. H., & **Bailey**, **D. H.** (2021). Dual-Task Studies of Working Memory and Arithmetic Performance: A Meta-Analysis. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 47, 220-233.
- Pages, R., Lukes, D. J., Bailey, D. H., & Duncan, G. J. (2020). Elusive longer-run impacts of head start: replications within and across cohorts. *Educational Evaluation and Policy Analysis*, 0162373720948884.

  \*Please carefully consider the population to which you wish to generalize if citing this article.
- Bailey, D. H., Oh, Y., Farkas, G., Morgan, P., & Hillemeier, M. (2020). Reciprocal Effects of Reading and Mathematics? Beyond the Cross-Lagged Panel Model. *Developmental Psychology*, *56*, 912-921.
- J47 Watts, T. W., **Bailey, D. H.**, & Li, C. (2019). Aiming Further: Addressing the Need for High Quality Longitudinal Research in Education. *Journal of Research on Educational Effectiveness*, 12, 648-658.
- Nguyen, T., Duncan, R. J., & **Bailey, D. H.** (2019). Theoretical and methodological implications of associations between executive function and mathematics in early childhood. *Journal of Contemporary Educational Psychology*, *58*, 276-287.
- Castro, M. K., **Bailey**, **D. H.**, Zinger, J. F., & Martin, E. A. (2019). Late electrophysiological potentials and emotion in schizophrenia: A meta-analytic review. *Schizophrenia Research*, 211, 21-31.
- **Bailey, D. H.**, Fuchs, L. S., Gilbert, J. K., Geary, D. C., & Fuchs, D. (2020). Prevention: Necessary but insufficient? A two-year follow-up of effective first-grade mathematics intervention. *Child Development*, *91*, 382-400.
- J43 Kang, C., Duncan, G. J., Clements, D., & Sarama, J, & **Bailey**, **D. H.** (2019). The roles of transfer of learning and forgetting in the persistence and fadeout of early childhood mathematics interventions. *Journal of Educational Psychology*, 111, 590-603.

- Jünger, J., Motta-Mena, N. V., Cardenas, R., **Bailey, D. H.**, Rosenfield, K. A., Schild, C., Penke, L., & Puts, D. A. (2018). Do women's preferences for masculine voices shift across the ovulatory cycle? *Hormones and Behavior*, 106, 122-134. doi: 10.1016/j.yhbeh.2018.10.008
- **Bailey, D. H.,** Duncan, G. J., Watts, T., Clements, D., & Sarama, J. (2018). Risky business: Correlation and causation in longitudinal studies of skill development. *American Psychologist*, 73, 81-94.
- **Bailey, D. H.**, Duncan, G., Odgers, C., & Yu, W. (2017). Persistence and fadeout in the impacts of child and adolescent interventions. *Journal of Research on Educational Effectiveness*, 10, 7-39.
- **Bailey, D. H.**, Hansen, N., & Jordan, N. C. (2017). The co-development of children's fraction arithmetic skill and fraction magnitude understanding. *Journal of Educational Psychology*, 109, 509-519.
- J38 **Bailey, D. H.**, Nguyen, T., Jenkins, J. M., Domina, T., Clements, D. H., & Sarama, J. S. (2016). Fadeout in an early mathematics intervention: Constraining content or pre-existing differences? *Developmental Psychology*, *52*, 1457-1469.
- Watts, T. W., Clements, D. H., Sarama, J., Wolfe, C. B., Spitler, M. E., & **Bailey, D. H**. (2017). Does early mathematics intervention change the processes underlying children's learning? *Journal of Research on Educational Effectiveness*, 10, 96-115.
- **Bailey, D. H.** & Littlefield, A. K. (2017). Does reading cause later intelligence? Accounting for stability in models of change. *Child Development*, 88, 1913-1921.
- Schenke, K., Rutherford, T., Lam, A. C., & **Bailey, D. H**. (2016). Construct confounding among predictors of mathematics achievement. *AERA Open*, 2, 2332858416648930.
- Puts, D. A., Hill, A. K., **Bailey, D. H.**, Walker, R. S., Rendall, D. Wheatley, J. R., Welling, L. L. M., Dawood. K., Cárdenas, R., Burriss, R. P., Jablonski, N. G., Shriver, M. D., Weiss, D., Lameira, A. R., Apicella, C. L., Owren, M. J., Barelli, C., Glenn, M. E., & Ramos-Fernandez, G. (2016). Sexual selection on male vocal fundamental frequency in humans and other anthropoids. *Proceedings of the Royal Society of London B: Biological Sciences*, 283, 20152830.
- J33 Stoet, G., **Bailey**, **D. H.**, Moore, A. M., & Geary, D. C. (2016). Countries with higher levels of gender equality show larger national sex differences in mathematics anxiety and relatively lower parental mathematics valuation for girls. *PLoS ONE*, 11, e0153857.
- Ellsworth, R. M., Shenk, M. K., **Bailey, D. H.,** & Walker, R. S. (2016). Comparative study of reproductive skew and pair-bond stability using genealogies from 80 small-scale human societies. *American Journal of Human Biology*, 28, 335-342.

- **Bailey, D. H.,** Zhou, X., Zhang, Y., Cui, J., Fuchs, L. S., Jordan, N. C., Gersten, R., & Siegler, R. S. (2015). Development of fraction concepts and procedures in U.S. and Chinese children. *Journal of Experimental Child Psychology*, 129, 68-83.
- J30 Martin, E. A., Cicero, D. C., Bailey, D. H., Karcher, N. R., & Kerns, J. G. (2016). Social anhedonia is not just extreme introversion: Empirical evidence of distinct constructs. *Journal of Personality Disorders*, 30, 451-468.
- Walker, R. S., Yvinec C., Ellsworth, R. M., & Bailey, D. H. (2015). Co-father relationships among the Suruí (Paiter) of Brazil. *PeerJ*, 3, e899.
- **Bailey, D. H.,** Watts, T. W., Littlefield, A. K., & Geary, D. C. (2014). State and trait effects on individual differences in children's mathematical development. *Psychological Science*, 25, 2017-2026.
  - *Relevant piece*: Bailey, D. H. What's the point of teaching math in preschool? *The Brown Center Chalkboard*, retrieved from http://www.brookings.edu/research/papers/2014/11/13-chalkboard-preschool-math-bailey.
- Fazio, L. K., **Bailey, D. H.,** Thompson, C. A., & Siegler, R. S. (2014). Relations of different types of numerical magnitude representations to each other and to mathematics achievement. *Journal of Experimental Child Psychology*, 123, 53-72.
- **Bailey, D. H.**, Siegler, R. S., & Geary, D. C. (2014). Early predictors of middle school fraction knowledge. *Developmental Science*, 17, 775-785.
- Li, Y., **Bailey, D. H.**, Winegard, B., Puts, D. A., Welling, L. L. M., & Geary, D. C. (2014). Women's preference for masculine traits is disrupted by images of male-on-female aggression. *PLoS ONE*, *9*, e110497.
- **Bailey, D. H.,** Hill, K. R., & Walker, R. S. (2014). Fitness consequences of spousal relatedness in 46 small-scale societies. *Biology Letters*, 10, 20140160.
- J23 Ellsworth, R. M., Walker, R. S., **Bailey, D. H.**, Hill, K. R., & Hurtado, A. M. (2014). Relatedness, co-residence, and shared fatherhood among Ache foragers of Paraguay. *Current Anthropology*, *55*, 647-653.
- Walker, R. S., & **Bailey, D. H.** (2014). Marrying kin in small-scale societies. *American Journal of Human Biology*, 26, 384–388.
- Wheatley, J. R., Apicella, C. A., Burriss, R. P., Cárdenas, R. A., **Bailey, D. H.**, Welling, L. L. M., & Puts, D. A. (2014). Women's faces and voices are cues to reproductive potential in industrial and forager societies. *Evolution and Human Behavior*, 35, 264-271.
- J20 Siegler, R. S., Fazio, L. K., **Bailey, D. H.**, & Zhou, X. (2013) Fractions: The new frontier for theories of numerical development. *Trends in Cognitive Sciences*, 17, 13-19.

- J19 Geary, D. C., Hoard, M. K., Nugent, L., & **Bailey**, **D. H.** (2013). Adolescents' functional numeracy is predicted by their school entry number system knowledge. *PLoS ONE*, *8*, e54651.
- J18 **Bailey, D. H.**, Walker, R. S., Blomquist, G. E., Hill, K. R., Hurtado, A. M. & Geary, D. C. (2013). Heritability and fitness correlates of personality in the Ache, a natural-fertility population in Paraguay. *PLoS ONE*, 8, e59325.
- Puts, D. A., **Bailey, D. H.**, Cárdenas, R. A., Burriss, R. P., Welling, L. L., Wheatley, J. R., & Dawood, K. (2013). Women's attractiveness changes with estradiol and progesterone across the ovulatory cycle. *Hormones and Behavior*, 63, 13-19.
- J16 Walker, R. S., & Bailey, D. H. (2013). Body counts in lowland South American violence. *Evolution & Human Behavior*, 34, 29-34.
- Ellsworth, R. M, & **Bailey**, **D. H.** (2013). Human female orgasm as evolved signal: A test of two hypotheses. *Archives of Sexual Behavior*, 42, 1545-1554.
- **Bailey, D. H.**, Hoard, M. K., Nugent, L., & Geary, D. C. (2012). Competence with fractions predicts gains in mathematics achievement. *Journal of Experimental Child Psychology*, 113, 447-455.
- **Bailey, D. H.**, Littlefield, A., & Geary, D. C. (2012). The co-development of skill at and preference for use of retrieval-based processes for solving addition problems: Individual and sex differences from first to sixth grade. *Journal of Experimental Child Psychology*, 113, 78-92.
- Geary, D. C., Hoard, M. K., Nugent, L., & **Bailey, D. H.** (2012). Mathematical cognition deficits in children with learning disabilities and persistent low achievement: A five year prospective study. *Journal of Educational Psychology*, 104, 206-223.
- **Bailey, D. H.**, Hamilton, M. J. & Walker, R. S. (2012). Latitude, population size, and the language-farming dispersal hypothesis. *Evolutionary Ecology Research*, 14, 1057-1067.
- Martin, E. A., **Bailey, D. H.**, Cicero, D. C., & Kerns, J. G. (2012). Social networking profile correlates of schizotypy. *Psychiatry Research*, 200, 641-646.
- \*Jašarević, E., **Bailey, D. H.**, Crossland, J. P., Dawson, W. D., Szalai, G., Ellersieck, M. R., Rosenfeld, C. S., & Geary, D. C. (2012). Evolution of monogamy, parental investment, and female life history in *Peromyscus*. *Journal of Comparative Psychology*, 127, 91-102.
  - \*EJ and DHB contributed equally
- **Bailey, D. H.,** Winegard, B., Oxford, J., & Geary, D. C. (2012). Sex differences in ingroup cooperation vary dynamically with competitive conditions and outcomes. *Evolutionary Psychology*, *10*, 102-119.

- J7 Geary, D. C., Hoard, M. K., & **Bailey**, **D. H.** (2011). Fact retrieval deficits in low achieving children and children with mathematical learning disability. *Journal of Learning Disabilities*, 45, 291-307.
- **Bailey, D. H.,** Durante, K. M., & Geary, D. C. (2011). Men's perception of women's attractiveness is calibrated to relative mate value and dominance of the women's partner. *Evolution & Human Behavior*, 32, 138-146.
- Eriksson, K., **Bailey, D. H.**, & Geary, D. C. (2010). The grammar of approximating number pairs. *Memory & Cognition*, *38*, 333-343.
- Puts, D. A., Cárdenas, R. A., **Bailey, D. H.**, Burriss, R. P. Jordan, C. L., & Breedlove, S. M. (2010). Salivary testosterone does not predict mental rotation performance in men or women. *Hormones and Behavior*, *58*, 282-289.
- Geary, D. C., **Bailey, D. H.,** Littlefield, A., Wood, P., Hoard, M. K., & Nugent, L. (2009). First-grade predictors of mathematical learning disability: A latent class trajectory analysis. *Cognitive Development*, 24, 411-429.
- Geary, D. C., **Bailey, D. H.**, & Hoard, M. K. (2009). Predicting mathematical achievement and mathematical learning disability with a simple screening tool: The number sets test. *Journal of Psychoeducational Assessment*, 27, 265-279.
- **Bailey, D. H.,** & Geary, D. C. (2009) Hominid brain evolution: Testing climactic, ecological, and social competition models. *Human Nature*, 20, 67-79.

## **SOFTWARE**

- Brick, T. R., Wan, S., Alvarez-Vargas, D., & **Bailey, D. H.** (2021). CMSE: Causal Mean Squared Error index. R package version 0.1.1. https://doi.org/10.5281/zenodo.8475
- Brick, T. R., & **Bailey, D. H.** (2019) MICr: Matrices of Implied Causation in R. R package version 0.0.0.9000 [software program]. Available from https://github.com/trbrick/MICr

# **BOOK CHAPTERS**

- Wai, J., & **Bailey**, **D. H.** (in press). How intelligence research can inform public policy. *In: The Cambridge Handbook of Intelligence and Cognitive Neuroscience*, *A. K. Barbey*, *S. Karama*, & R. J. Haier (eds.).
- **Bailey, D. H.** (2019). Explanations and Implications of Diminishing Intervention Impacts across Time. *In: Cognitive Foundations for Improving Mathematical Learning, Volume 5. Geary, D., Berch, D., & Koepke, K. M.* (eds.). Academic Press.

- **Bailey, D. H.** (2018). Correlational data analysis in cognitive development: The primacy of risky tests. *In: Cognitive Development from a Strategy Perspective: A Festschrift for Robert Siegler. Lemaire, P. (ed.),* pp. 194-206. Routledge.
- Hill, A. K., **Bailey, D. H.**, & Puts, D. A. (2017). Gorillas in our midst? Human sexual dimorphism and contest competition in men. *In: On Human Nature: Biology, Psychology, Ethics, Politics, and Religion. Tibayrenc, M. and Ayala, F.J. (eds.).* Academic Press, 235-249. http://dx.doi.org/10.1016/B978-0-12-420190-3.00015-6
- Puts, D. A., **Bailey, D. H.**, & Reno, P. (2015). Contest competition in men. In Buss, D. M. (Ed.), *The Handbook of Evolutionary Psychology*, 2nd ed. (pp. 385-402). Hoboken, NJ: Wiley.
- Geary, D. C., Hoard, M. K., & **Bailey, D. H.** (2011). How SLD manifests in mathematics. In Flanagan, D. P., & Alfonso, V. C. (Eds.), *Essentials of Specific Learning Disability Identification* (pp. 43-64). Hoboken, NJ: Wiley.
- Geary, D. C., **Bailey, D. H.,** & Oxford, J. K. (2011). Reflections on the human family. In C. A. Salmon & T. K. Shackelford (Eds.), *Oxford Handbook of Evolutionary Family Psychology* (pp. 365-385). New York: Oxford University Press.

#### **COMMENTARIES**

- C10 Bailey, D. H., & Weiss, M. J. (2022). Do Meta-Analyses Oversell the Longer-Term Effects of Programs? (Part 2): Attempting to Correct for Follow-Up Selection Bias. MDRC Reflections on Methodology Blog. Retrieved from https://www.mdrc.org/publication/do-meta-analyses-oversell-longer-term-effects-programs-part-2
- C9 Bailey, D. H., & Weiss, M. J. (2022). Do Meta-Analyses Oversell the Longer-Term Effects of Programs? (Part 1): Detecting Follow-Up Selection Bias in Studies of Postsecondary Education Programs. MDRC Reflections on Methodology Blog. Retrieved from https://www.mdrc.org/publication/do-meta-analyses-oversell-longer-term-effects-programs-part-1
- Nguyen, T. & **Bailey, D. H.** (2021). *Drawing General Conclusions from Null Effects of a Prekindergarten Curriculum: Challenges and Solutions.* [Peer commentary on the article "Effects of prekindergarten curricula: *Tools of the Mind* as a case study" by K. T. Nesbitt and D. C. Farran]. *Monograph Matters*. Retrieved from https://monographmatters.srcd.org/2021/02/13/commentary-nguyenbailey-86-1/
- C7 **Bailey, D. H.** (2017). Causal Inference and the Spatial-Math Link in Early Childhood. *Monograph of the Society for Research in Child Development, 82,* 127–136.
- C6 Del Giudice, M., Lippa, R. A., Puts, D. A., **Bailey, D. H.,** Bailey, J. M., & Schmitt, D. P. (2016). Joel et al.'s method systematically fails to detect large, consistent sex differences. *Proceedings of the National Academy of Sciences USA*.

- C5 Bailey, D. H., Ellingson, J. M., & Bailey, J. M. (2014). Genetic confounds in the study of sexual orientation: Comment on Roberts, Glymour, and Koenen (2014). *Archives of Sexual Behavior*.
- C4 Bailey, D. H., & Bailey, J. M. (2013). Poor instruments lead to poor inferences: Comment on Roberts, Glymour, and Koenen (2013). *Archives of Sexual Behavior*, 42, 1649-1652.
- C3 Bailey, D. H., Lippa, R. A., Del Giudice, M., Hames, R., & Geary, D. C. (2012). Methodological problems in Hoffman et al. *Proceedings of the National Academy of Sciences USA*, 109, E583.
- Winegard, B., **Bailey**, **D. H.**, Oxford, J. K., & Geary, D. C. (2010). Trade-offs and individual differences in evolved traits. *American Psychologist*, 65, 928-929.
- C1 Bailey, D. H., Oxford, J. K., & Geary, D. C. (2009). Ultimate and proximate influences on human sex differences. *Behavioral and Brain Sciences*, 32, 266-267.

## **BOOK REVIEWS**

- R2 Geary, D. C., **Bailey, D. H**., & Winegard, B. (2012). Strategic cooperation and the rise of the modern world. *PsycCRITIQUES*, 54.
- **R1 Bailey, D. H.,** Winegard, B., & Geary, D. C. (2010). Not father's fatherhood book. *Evolutionary Psychology*, *8*, 336-339.

# TALKS AND PRESENTATIONS

# **INVITED TALKS**

- **Bailey, D. H.** (2024, February). *Is Nonexperimental Psychology Ready for a Causal Inference Revolution?* Invited talk. Department of Human Development and Family Science and Advanced Methodologies at Purdue, Purdue University.
- **Bailey, D. H.** (2023, October). *Learning about Development from Educational Interventions.* Invited keynote at the LEAD Institute Retreat, Department of Psychology, University of Tübingen.
- **Bailey, D. H.** (2023, October). *Learning about Development from Educational Interventions*. Invited talk. Developmental Psychology Brownbag, Department of Psychology, University of Illinois.
- **Bailey, D. H.** (2023, July). Do Intervention Impacts on Social-Emotional Skills Persist at Higher Rates than Impacts on Cognitive Skills? A Meta-Analysis of Educational RCTs with Long-Term Follow-up. Invited talk. Mobile Interventions: Improving Children's Education and Well-Being With Mobile Technology (MiniEd), Bad Homburg, Germany.

- **Bailey, D. H.** (2023, April). A Causal Inference Revolution in Nonexperimental Psychology? Challenges and Opportunities. Invited talk (virtual). Math Cognition Reading Group, Kent State University.
- **Bailey, D. H.,** and Yeager, D. (2022, October). *PSPI Live: Persistence and Fade-Out of Educational Intervention Effects: Mechanisms and Potential Solutions*. Online panel organized by the Association for Psychological Science.
- **Bailey, D. H.** (2022, October). *Effects of Early Interventions: Whether they last or not and why.* Invited talk. Department of Education, University of Québec à Montréal.
- **Bailey, D. H.** (2022, September). A Causal Inference Revolution in Nonexperimental Psychology? Challenges and Opportunities. Invited talk. Department of Education, University of Oslo.
- **Bailey, D. H.** (2022, September). *Persistence and Fadeout: What Happens Next?* Invited talk. Institute for Special Education, University of Oslo.
- **Bailey, D. H.** (2022, February). *Persistence and Fade-Out of Educational-Intervention Effects: Mechanisms and Potential Solutions*. Invited talk. Spring Lecture Series, Department of Education Reform, University of Arkansas.
- **Bailey, D. H.** (2022, January). *Challenges and opportunities to applying cognitive science to educational policy.* Invited talk (Virtual). Claremont Cognitive Forum, Division of Behavioral and Organizational Sciences at Claremont Graduate University.
- **Bailey, D. H.** (2021, May). Considering Counterfactuals when Optimizing for Long-Term Impacts. Invited talk (virtual), Seminar Series: Reducing Child Poverty and Promoting Intergenerational Mobility, The National Academies of Sciences, Engineering, and Medicine.
- **Bailey, D. H.** (2020, December). *Persistence and Fade-Out of Educational-Intervention Effects: Mechanisms and Potential Solutions.* Invited talk (virtual), Duckworth-Seligman-Mackey Lab group, Department of Psychology, University of Pennsylvania.
- **Bailey, D. H.** (2020, May). *Psychological Science in the Public Interest Symposium Can We Make Intervention Effects Last?* Invited talk, Meeting for the Association of Psychological Science, Chicago (Conference Canceled).
- **Bailey, D. H.** (2019, December). *Treatment effect forecasting: What is it, and why should you care?* Invited talk, Workshop on Education, University of Chicago.
- **Bailey, D. H.,** Jenkins, J. M., & Alvarez-Vargas, D. (2019, December). *Complementarities between Early Educational Intervention and Later Educational Quality? A Systematic Review of the Sustaining Environments Hypothesis*. Invited talk, Developmental Psychology Brownbag, University of Chicago.

- **Bailey, D. H.** (2019, October). *Treatment effect forecasting: What is it, and why should you care?* Invited talk, Science of Learning Research Centre, University of Queensland, Brisbane, Australia.
- **Bailey, D. H.** (2019, May). *Treatment effect forecasting: What is it, and why should you care?*. Invited talk, Meeting for the Association of Psychological Science, Washington, D.C.
- **Bailey, D. H.** (2019, April). *Developmental theory, intervention, and measurement as mutually reinforcing sources of evidence*. Invited talk, Skelton Lecture Series, Department of Psychological Sciences, Texas Tech University.
- **Bailey, D. H.** (2018, October). *How to more effectively falsify your most precious developmental hypotheses*. Invited talk, Advanced Methodologies at Purdue: Behavioral, Health, and Social Sciences Conference.
- **Bailey, D. H.** (2018, June). *Explanations and implications of diminishing intervention impacts across time.* Invited talks,

Department of Psychology and Behavioral Science, Zhejiang University, Hangzhou, China;

State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China;

Department of Psychology, Peking University, Beijing, China; Institute of Psychology, Chinese National Academy of Sciences, Beijing, China.

- **Bailey, D. H.** (2018, March). *Early academic skill-building: Developmental processes and implications for intervention.* Invited talk, Annual Conference of the Center for Child Well-Being & Development, University of Zürich.
- **Bailey, D. H.** (2017, July). *Explanations and implications of diminishing intervention impacts across time*. Invited talk, Hector and LEAD Institutes, Tübingen, Germany.
- **Bailey, D. H.** (2017, May). *Explanations and implications of diminishing intervention impacts across time*. Invited talk, Math Cognition Conference, Nashville, Tennessee.
- **Bailey, D. H.**, Duncan, G., Watts, T. W., Clements, D. H., & Sarama, J. (2016, September). Risky Business: Correlation and Causation in Longitudinal Studies of Skill Development. Invited talk, Conference of the International Mind, Behavior, and Education Society, Toronto, Canada.
- **Bailey, D. H.** (2016, September). *Risky Business: Correlation and Causation in Longitudinal Studies of Skill Development.* Invited talk, Experimental Psychology Proseminar Series, University of Nevada, Las Vegas.
- **Bailey, D. H.** (2016, June). *Correlational data analysis in cognitive development: The primacy of risky tests.* Invited talk, Cognitive Development: Hommage to Robert S. Siegler, Aix-Marseille Université, Aix-en-Provence, France.
- **Bailey, D. H.** (2016, March). *A framework for understanding fadeout and persistence in early childhood educational interventions.* Invited talk, ZiF Center for Interdisciplinary Research, Universität Bielefeld, Bielefeld, Germany.

- **Bailey, D. H.** (2015, March). Reconciling correlational and experimental findings to understand children's mathematical development: Implications for theory, research, and educational policy. Invited colloquium, Department of Psychology and Social Behavior, University of California, Irvine.
- **Bailey, D. H.** (2015, February). Reconciling correlational and experimental findings to understand children's mathematical development: Implications for theory, research, and educational policy. Invited talk, Cognitive Forum, Department of Psychology, University of California, Los Angeles.
- **Bailey, D. H.** (2014, October). *Underlying trait effects in children's mathematical development: Implications for understanding fade-out of early childhood intervention effects.* Invited colloquium, Department of Psychology, University of California, San Diego.
- **Bailey, D. H.** (2014, May). State and trait effects on individual differences in children's mathematical development. Invited talk, School of Education, University of Glasgow, Glasgow, Scotland.
- **Bailey, D. H.** (2013, May). Why do humans differ? Implications from a study of personality in the Ache, a natural-fertility population in Paraguay. Invited talk, Department of Psychology, Knox College, Galesburg, IL.
- **Bailey, D. H.**, Hoard, M. K., Nugent, L., & Geary, D. C. (2012, October). *Determining which children with low math achievement have a mathematical learning disability: Evidence from a longitudinal study from kindergarten to grade 7*. Invited talk, annual conference of the International Dyslexia Association, Baltimore, MD.

#### SELECTED CONFERENCE TALKS

- **Bailey, D. H.** (2021, September). *Persistence and Fadeout: What Happens Next?* Invited talk (virtual), presented at the Society for Research on Educational Effectiveness.
- **Bailey, D. H.,** Oh, Y., Farkas, G., Morgan, P., & Hillemeier, M. (2019, March). *Reciprocal Effects of Reading and Mathematics? Beyond the Cross-Lagged Panel Model.* Paper presented at the Society for Research on Educational Effectiveness, Washington, D.C.
- **Bailey, D. H.,** Duncan, G. J., Watts, T., Clements, D., & Sarama, J. (2017, April). *Risky business: Correlation and causation in longitudinal studies of skill development.* Paper presented at the Society for Research on Child Development, Austin, TX.
- **Bailey, D. H.**, & Littlefield, A. K. (2015, September). *Does reading cause later intelligence? Accounting for stability in models of change.* Spoken presentation given at the annual meeting of the International Society for Intelligence Research, Albuquerque, New Mexico.
- **Bailey, D. H.**, Hansen, N., & Jordan, N. C. (2015, August). The Co-Development of Children's Fraction Arithmetic Skill and Fraction Magnitude Understanding. Spoken presentation

- given at the meeting of the European Association for Research on Learning and Instruction, Limassol, Cyprus.
- Bailey, D. H., Nguyen, T., Jenkins, J. M., Domina, T., Clements, D. H., Sarama, J., Wolfe, C. B., & Spitler, M. E. (2015, March). *Fadeout in an Early Mathematics Intervention: Same Old Schools or Underlying Skills?* Spoken presentation given at the Society for Research in Educational Effectiveness, Washington, D.C.
- **Bailey, D. H.** (2014, April). *The centrality of fractions to mathematics learning.* Spoken presentation given at the annual convention of the Council for Exceptional Children, Philadelphia, PA.
- Fazio, L. K., **Bailey, D. H.**, Thompson, C. A., & Siegler, R. S. (2013, April). *Relations of symbolic and non-symbolic fraction and whole number magnitude representations to each other and to mathematics achievement*. Paper presented at the Society for Research on Child Development, Seattle, WA.
- **Bailey, D. H.**, Guerra, K. & Walker, R. S. (2012, June). *How and why do cultures differ? Cultural similarity and the question of vertical or horizontal transmission*. Paper presented at the Human Behavior and Evolution Society, Albuquerque, NM.
- Walker, R. S., & **Bailey**, **D. H.** (2012, June). *Body counts in Amazonian violence*. Paper presented at the Human Behavior and Evolution Society, Albuquerque, NM.
- **Bailey, D. H.**, Geary, D. C., Walker, R. S., Blomquist, G. E., & Hill, K. R. (2011, July). *Personality and reproductive success in the Ache (Paraguay): Implications for the evolution of human individual differences.* Paper presented at the Human Behavior and Evolution Society, Montpellier, France.
- **Bailey, D. H.**, & Geary, D. C. (2009, May). *Hominid brain evolution: Testing climactic, ecological, and social competition models.* Paper presented at the Human Behavior and Evolution Society, Fullerton, CA.

# PROFESSIONAL ACTIVITIES

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## **ACADEMIC SERVICE**

#### Associate Editor

British Journal of Educational Psychology (2023-present) Developmental Psychology (2014-2022)

## **Editorial Board**

AERA Open (2014-2022) American Psychologist (2016-2022) Archives of Sexual Behavior (2010-present) Child Development (2023-present) Evolution & Human Behavior (2015-2018) Frontiers in Developmental Psychology (2016-2017) Journal of Educational Psychology (2022-present) Journal of Research on Educational Effectiveness (2023-2026) New Directions for Child and Adolescent Development (2020-present)

Other Journal Service

Statistical Editorial Advisor for Registered Reports, *Journal of Numerical Cognition* (2018-2021)

**Journal Referee** 

Adaptive Human Behavior and Physiology; Advances in Methods and Practices in Psychological Science; AERA Open; American Educational Research Journal; The American Journal of Psychiatry; American Psychologist; Animal Behaviour; Archives of Sexual Behavior; Assessment; Canadian Journal of Behavioural Science; Canadian Journal of Experimental Psychology; Child Development; Child Development Perspectives; Cognition; Cognitive Development; Cognition and Instruction; Contemporary Educational Psychology; Current Directions in Psychological Science; Current Anthropology; Current Directions in Psychological Science; Demography; Developmental Psychology; Developmental Review; Developmental Science; Early Childhood Research Quarterly; Education Economics; Education Evaluation and Policy Analysis; Educational Psychology Review; Educational Research Review; Educational Researcher; The Elementary School Journal; Ethology; Evolution & Human Behavior; Evolutionary Psychological Science; Evolutionary Psychology; Frontiers in Developmental Psychology; Hormones and Behavior; Human Nature; Infant & Child Development; Intelligence; International Journal of Research in Undergraduate Mathematics Education; International Journal of Sexual Health; JAMA Pediatrics; Journal for Research in Mathematics Education; Journal of Abnormal Child Psychology; Journal of Applied Research in Memory and Cognition; Journal of Economic Surveys; Journal of Educational Psychology; Journal of Experimental Child Psychology; Journal of Experimental Education; Journal of Experimental Psychology: General; Journal of Experimental Psychology: Learning, Memory, and Cognition; Journal of Homosexuality; Journal of Learning Disabilities; Journal of Numerical Cognition; Journal of Personality and Social Psychology: Attitudes and Social Cognition; Journal of Policy Analysis and Management; Journal of Research on Adolescence; Journal of Research on Educational Effectiveness; Journal of Research on Mathematics Education; Journal of Social and Clinical Psychology; Learning and Individual Differences; Learning and Instruction; Mathematical Thinking and Learning; Mind, Brain, and Education; Monographs of the Society for Research in Child Development; Pediatrics; Personality and Individual Differences; Personality and Social Psychology Bulletin; PLoS ONE; Proceedings of the National Academy of Sciences USA; Proceedings of the Royal Society B — Biological Sciences; Psychological Bulletin; Psychological Review; Psychological Science; Psychonomic Bulletin & Review; Quarterly Journal of Experimental Psychology; SAGE Open; The Social Science Journal; Socioaffective Neuroscience & Psychology; Stress & Health; Technology, Knowledge, and Learning; WIREs Cognitive Science

# Conference Service

Co-Chair, Education and Schooling Review Panel, 2021 SRCD Biennial Meeting Conference Referee, Society for Research on Child Development (2019, 2023), Society for Research on Educational Effectiveness

## Review Panel

Principal member of Review Panel, U.S. Department of Education, Institute of Education Sciences' (IES) Review Panel. (2021-2025).

School and University Committees and Appointments

Director for Undergraduate Education, School of Education, UC Irvine (2018-2023)

Member, Strategic Planning Committee for the School of Education, UC Irvine (2022)

Member, Search Committee for the Dean of the School of Education, UC Irvine (2021)

Member, Climate Council, School of Education, UC Irvine (2018-2023)

Member, Executive Committee, School of Education, UC Irvine (2015-2018)

Member, *Ph.D. Steering Committee*, School of Education, UC Irvine (2017-2018; 2020-2021; 2022-2023)

Co-director for *UCI SERI Program* (Rossella Santagata, PI, funded through the UC-HBCU Initiative of the University of California Office of the President), School of Education, UC Irvine (2016)

Interim graduate advisor, School of Education, UC Irvine (2015-2016)

Member, Council on Faculty Welfare, Diversity, and Academic Freedom, UC Irvine (2018-2020)

Member, Campuswide Honors Collegium Board, UC Irvine (2022-2023)

Member, *Council on Planning and Budget*, UC Irvine (2015-2018)

Member, *Undergraduate Steering Committee*, School of Education, UC Irvine (2015-2017)

Member, Search Committee for the Dean of the School of Education, UC Irvine (2015)

Member, Council on Undergraduate Admissions and Relations with Schools, UC Irvine (2015)

# Other Service

Board Member, Society for Research on Educational Effectiveness (2024-2027)

Working Group on Education and COVID-19, Association for Psychological Science. (2022)

Review Editor of the Data and Evidence Group of the International Science and Evidence based Education (ISEE) Assessment, coordinated by the UNESCO Mahatma Gandhi Institute of Education for Peace and Sustainable Development (MGIEP). (2020-2022)

Ad hoc reviewer, IES, NSF, NWO (Dutch Research Council), Social Sciences and Humanities Research Council of Canada

Reviewer, Applicant Statement Feedback Program (2021)

Consulting Editor, Handbook of Research Methods in Early Childhood Education

## **TEACHING**

I have been an instructor for the courses listed below.

# University of California, Irvine:

Applied Regression (Ph.D.)

Cognition & Learning in Educational Settings (Undergraduate)

Educational Research Design (Undergraduate)

*Epistemology and Research Methods (Ph.D.)* 

*Individual Differences (Ph.D.)* 

Psychology of Learning, Abilities, and Intelligence (Undergraduate)

Theories of Development and Learning Applied to Education (Undergraduate)

## **University of Missouri:**

Research Methods (Undergraduate)

## **DISSERTATION DEFENSE COMMITTEES**

# University of California, Irvine:

Chair: Daniela Alvarez-Vargas, Natalie Au Yeung, Edward Chen, Remy Pages, Taffeta Wood, Sirui Wan

**Member:** Arena Chang, Yannan Gao, Su Jiang, Hye Rin Lee, Grace Lin, Ryan Lewis, Osman Umarji, Tyler Watts, Qingqing Yang

# **Member of Dissertation Committees at Other Institutions:**

Sally Larsen, University of New England, New South Wales, Australia Nathan Lau, University of Western Ontario, Ontario, Canada Anita Lopez-Pedersen, University of Oslo, Norway

# **MISCELLANEOUS**

#### SELECTED MEDIA COVERAGE

David Epstein's blog, 2022, "Everything in Your Fridge Causes and Prevents Cancer" <a href="https://davidepstein.bulletin.com/everything-in-your-fridge-causes-and-prevents-cancers/">https://davidepstein.bulletin.com/everything-in-your-fridge-causes-and-prevents-cancers/</a>

Bowman, L. (2021). 3- and 4-Year-Olds in a Washington School Ahead of the Game. <a href="https://www.voanews.com/a/and-4-year-olds-in-a-washington-school-ahead-of-the-game-/6301986.html">https://www.voanews.com/a/and-4-year-olds-in-a-washington-school-ahead-of-the-game-/6301986.html</a>

Andrew Gelman's Blog, 2021, "Drew Bailey on backward causal questions and forward causal inference"

https://statmodeling.stat.columbia.edu/2021/03/02/drew-bailey-on-backward-causal-questions-and-forward-causal-inference/

Mervis, J. (2017). No easy answers. *Science*, 355, 568-571.

Daniel Willingham's Blog, "Why Do Intervention Effects Fade", August 21, 2016 <a href="http://www.danielwillingham.com/daniel-willingham-science-and-education-blog/why-do-intervention-effects-fade">http://www.danielwillingham.com/daniel-willingham-science-and-education-blog/why-do-intervention-effects-fade</a>

Education Week, "Studies explore reasons for 'fade-out' effect" by Sarah D. Sparks, January 26, 2016.

http://www.edweek.org/ew/articles/2016/01/27/studies-explore-reasons-for-fade-out-effect.html

Education Week Blog, 3 part series called "Focus on Fade-Out", by Sarah D. Sparks, January, 2016

Part 1: http://blogs.edweek.org/edweek/inside-school-

research/2016/01/fadeout series 1 education problems.html

Part 2: http://blogs.edweek.org/edweek/inside-school-research/2016/01/fade-

out 2 faltering education.html

Part 3: http://blogs.edweek.org/edweek/inside-school-research/2016/01/fade-

out 3 keys education improvements that last.html

Washington Post, "Preschool can provide a boost, but the gains can fade surprisingly fast," by Drew Bailey, Greg Duncan, and Candice Odgers, 17 February, 2017.

Boston Globe, "Could small tweaks reap big rewards in math education?" by Kevin Hartnett, 26 July, 2015.

http://www.bostonglobe.com/ideas/2015/07/25/can-small-tweaks-mean-big-stridesin-math-prociency/bQbj9b22OV0h0WmmsAoUKM/story.html#skip-target1

## **FIELDWORK**

Personality in Ache forager-horticulturists, eastern Paraguay, July, 2010