

Tyler W. Watts, Ph.D.

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ACADEMIC POSITIONS

- 2019~present Assistant Professor of Developmental Psychology
Department of Human Development
Teachers College, Columbia University
New York, NY
- 2017~2019 Research Assistant Professor and Postdoctoral Scholar
Postdoc mentor: Cybele Raver
New York University
Steinhardt School of Culture, Education, and Human Development
New York, NY

CONSULTANT WORK

- 2017~present MDRC
Statistical consulting on several large-scale educational evaluations
- 2019~present University of Oslo
Consulted on research methods and statistics graduate course designs
- 2014-2016 University of Denver
Consulted on data analysis for the evaluation of the “TRIAD” scale-up evaluation

EDUCATION

- 2017 Ph.D., Education
Specialization in Educational Policy and Social Contexts
University of California, Irvine
Committee: Greg Duncan (chair),
Drew Bailey, Damon Clark, Carol Connor, and Jacque Eccles
Dissertation: *Academic Skills and Long-Run Outcomes*
- 2015 M.A. in Education
University of California, Irvine
- 2011 B.A., double major in Psychology and Religious Studies
University of Texas

SELECTED AWARDS

- 2019 National Institute of Health- Division of Loan Repayment Program Awardee

01/08/20

NIH-LRP; Washington, DC

- 2017 Michael Martinez Prize for Outstanding Research and Service
University of California, Irvine
- 2014 Associated Graduate Student Award for Best Social Science Research Presentation
University of California, Irvine

RESEARCH GRANTS

- Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD). “Factors in Persistence Versus Fadeout of Early Childhood Intervention Impacts” 2019-2024, Co-Principal Investigator (PI- Kenneth Dodge), \$3,300,000.
- U.S. Department of Education- Institute for Educational Sciences (IES). “Evaluating the Efficacy of an Interdisciplinary Preschool Curriculum (EPIC).” 2018-2023, Co-Principal Investigator (PI- Julie Sarama), ~\$3,000,000.
- U.S. Department of Education- Institute for Educational Sciences (IES). “Improving Low-Income Students’ Odds of Being ‘On-Track’ and College Ready in Chicago Public Schools.” 2016-2020, Principal Investigator (as of 2019; previous PI- Cybele Raver), \$3,210,436.

PEER-REVIEWED PUBLICATIONS

- Watts, T. W.** Academic achievement and economic attainment: Re-examining associations between test scores and long-run earnings (2020). Paper in press at *AERA Open*.
- Watts, T. W.**, Ibrahim, D. A., Khader, A., Gandhi, J., & Raver, C. C (2020). Exploring the effects of early childhood intervention on later school choice. Paper in press at *Educational Researcher*.
- Gandhi, J.* , **Watts, T. W.**, Masucci, M. D., & Raver, C. C. The effects of two mindset interventions on low-income students' academic and psychological outcomes (2020). *Journal of Research on Educational Evaluation*, 13(2), 351-379.
- Watts, T. W.**, & Duncan, G. J. (2020). Controlling, Confounding, and Construct Clarity: Responding to Criticisms of “Revisiting the Marshmallow Test” by Doebel, Michaelson, and Munakata (2020) and Falk, Kosse, and Pinger (2020). *Psychological Science*, 31(1), 105-108.
- 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(4), 648-658. <https://doi.org/10.1080/19345747.2019.1644692>
- Watts, T. W.**, Gandhi, J.* , Ibrahim, D. A.* , Masucci, M. D., & Raver, C. C. (2018). The Chicago School Readiness Project: Examining the long-term impacts of an early childhood intervention. *PLOS ONE*. doi: 10.1371/journal.pone.0200144
- Watts, T. W.**, Duncan, G. J., & Quan, H.* (2018). Revisiting the Marshmallow Test: A conceptual replication investigating links between early gratification delay and later outcomes. *Psychological Science*, 29, 1159-1177. doi: 10.1177/0956797618761661

Bailey, D. H., Duncan, G. J., **Watts, T. W.**, Clements, D. H., & Sarama, J. (2018). Risky business: Correlation and causation in longitudinal studies of skill development. *American Psychologist*, *73*(1), 81-94. <http://dx.doi.org/10.1037/amp0000146>

Jenkins, J. M., **Watts, T. W.**, Magnuson, K., Gershoff, E., Clements, D. H., Sarama, J., Wolfe, C. B., & Spitler, M. E. (2018). Do high-quality kindergarten and first-grade classrooms mitigate preschool fadeout? *Journal of Research on Educational Effectiveness*, *11*, 339-374, doi: 10.1080/19345747.2018.1441347

Watts, T. W., Duncan, G. J., Clements, D. H., Sarama, J. (2018). What is the long-run impact of learning mathematics during preschool? *Child Development*, *89*(2), 539-555. doi:10.1111/cdev.12713

Schenke, K., Nguyen, T., **Watts, T.W.**, Clements, D. H., Sarama, J., Wolfe, C. B., & Spitler, M. E. (2017). Differential effects of the classroom on African American and non-African American's mathematics achievement. *Journal of Educational Psychology*, *109*(6), 794-811. doi: 10.1037/edu0000165

Watts, T. W., Clements, D. H., Sarama, J., Wolfe, C. B., Spitler, M. E., & Bailey, D. H. (2016). Does early mathematics intervention make lower-achieving children learn like higher-achieving children? *Journal of Research on Educational Effectiveness*, *10*(1), 95-115. doi: 10.1080/19345747.2016.1204640

Engel, M., Claessens, A., **Watts, T. W.**, & Stone, S. (2016). Socioeconomic inequality at school entry: A cross-cohort comparison of families and schools. *Children and Youth Services Review*, *71*, 227-232. doi: 10.1016/j.chilyouth.2016.10.036

Engel, M., Claessens, A., **Watts, T. W.**, & Farkas, G (2016). Mathematics content coverage and student learning in kindergarten. *Educational Researcher*, *45*(5), 293-300. doi: 10.3102/0013189X16656841

Nguyen, T., **Watts, T. W.**, Duncan, G. J., Clements, D. H., Sarama, J. S., Wolfe, C., & Spitler, M. E. (2016). Which preschool mathematics competencies are most predictive of fifth grade achievement? *Early Childhood Research Quarterly*, *36*, 550-560. doi: 10.1016/j.ecresq.2016.02.003

Watts, T. W., Duncan, G. J., Chen, M., Claessens, A., Davis-Kean, P. E., Duckworth, K., Engel, M., Siegler, R. S., Susperreguy, M. I. (2015). The role of mediators in the development of longitudinal mathematics achievement associations. *Child Development*, *86*(6), 1892-1907. doi: 10.1111/cdev.12416

Watts, T. W., Duncan, G. J., Siegler, R. S., & Davis-Kean, P. E. (2014). What's past is prologue: Relations between early mathematics knowledge and high school achievement. *Educational Researcher*, *43*(7), 352-360. doi: 10.3102/0013189X14553660

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*(11), 2017-2026. doi: 10.1177/0956797614547539

Harte, C. B., **Watts, T. W.**, & Meston, C. M. (2013). Predictors of 1-, 6-and 12-month smoking cessation among a community-recruited sample of adult smokers in the United States. *Journal of Substance Use*, *18*(5), 405-416.

* denotes mentored graduate student

MANUSCRIPTS UNDER REVIEW

Watts, T. W., Nguyen, T., Carr, R. C., Vernon-Feagans, L., & Blair, C. Examining the effects of within-child changes in classroom quality on achievement and behavioral outcomes. Under review at *Child Development*.

INVITED CHAPTERS

Vandell, D.L., & **Watts, T.W.** (2018). Self care. In M.H. Bornstein (Editor-in-Chief) M. Arterberry, J. E. Lansford, & K. L. Fingerman (Eds.), *The SAGE encyclopedia of lifespan human development* (pp. 1923-1925). Thousand Oaks, CA: SAGE. doi: <http://dx.doi.org/10.4135/9781506307633.n715>

Vandell, D.L., Larson, R., Mahoney, J.L., & **Watts, T.W.** (2015). Children's Organized Activities. In R.M. Lerner (Series Ed.), M.H. Bornstein & T. Leventhal (Vol. Eds.), *Handbook of child psychology: Vol. 4. Ecological Settings and processes in developmental systems* (7th ed.). New York: Wiley

INVITED PRESENTATIONS

Watts, T. W., (2020, February). *Early self-regulation and later cognitive and behavioral outcomes: Examining construct coherence through predictive modeling*. Invited talk, Boston College.

Watts, T. W., (2019, February). *Early Childhood Development and Long-Run Effects: Can Predictive Associations Inform Causal Theories?* Invited talk, Teachers College, Columbia University.

Watts, T. W., (2019, February). *Early Childhood Education and Long-Run Effects: Can Predictive Associations Inform Causal Theories?* Invited talk, Graduate Center, City University of New York.

Watts, T. W., (2018, December). *Early Childhood Education and Long-Run Effects: Can Predictive Associations Inform Causal Theories?* Invited talk, Graduate School of Education, Stanford University.

Watts, T. W., (2018, October). *Promoting equality of educational opportunity by investing early: Under what conditions will ECE programs produce long-lasting benefits?* Invited talk, Bronfenbrenner Center for Translational Research, College of Human Ecology, Cornell University.

Watts, T. W., (2018, October). *A Reanalysis of the Impacts of the Tennessee Voluntary Prekindergarten Program*. Invited talk, Graduate School of Education, Harvard University.

Watts, T. W., (2018, September). *Early Intervention and Longitudinal Modelling: What Can We Learn from Correlational Work?* Invited talk, Department of Psychology, St. John's University.

Watts, T. W., (2018, February). *The Chicago School Readiness Project: Examining the Long-Term Impacts of an Early Childhood Intervention*. Invited talk, IES-PIRT Proseminar Series, New York University.

CONFERENCE TALKS

Watts, T.W. (May, 2019). *Lessons from Revisiting the Marshmallow Test: Exploring connections between non-experimental research and intervention development*. Chair of Invited Symposium at the 2019 Annual Meeting for the Association of Psychological Science. Washington, DC.

Watts, T.W., Gandhi, J., & Raver, C.C. (April, 2018). *Estimating the impact of the Chicago School Readiness Project (CSRP) on adolescent executive function and behavior.* Paper presented at the 2018 annual meeting for the American Educational Research Association. New York, NY.

Watts, T.W., Gandhi, J., & Raver, C.C. (March, 2018). *Estimating the long-run impacts of the Chicago School Readiness Project.* Paper presented at the 2018 annual meeting for the Society for Research on Educational Effectiveness. Washington, DC.

Watts, T.W., Gandhi, J., & Raver, C.C. (March, 2018). *Estimating the long-run impacts of the Chicago School Readiness Project.* Paper presented at the 2018 annual meeting for the American Educational Finance and Policy meeting. Portland, OR.

Watts, T. W., Duncan, G. J., & Rivas, M. (January, 2018). *A reanalysis of impacts of the Tennessee Voluntary Preschool Program.* Paper presented at the 2018 annual meeting for the American Economic Association.

Watts, T. W., (April, 2017). *Revisiting the correlation between test scores and adult earnings.* Paper presented at the 2017 biennial meeting for the Society for Research in Child Development.

Bailey, D. H., Duncan, G., **Watts, T. W.,** Clements, D. H., & Sarama, J. (September, 2016). *Risky Business: Correlation and Causation in Longitudinal Studies of Skill Development.* Invited talk, Conference of the International Mind, Behavior, and Education Society, Toronto, Canada.

Watts, T. W., Clements, D. H., Sarama, J., Wolfe, C. B., Spitler, M. E., Bailey, D. (April, 2016). *Effects of an early mathematics intervention on stable and time-varying components of mathematics achievement.* Paper presented at the 2016 annual meeting for the American Educational Research Association.

Watts, T. W., Duncan, G. J, Clements, D. H., Sarama, J. (November, 2016). *What is the long-run impact of learning math during preschool?.* Paper presented at the 2015 annual meeting for the Association for Public Policy Analysis and Management.

Engel, M., Claessens, A., **Watts, T. W.,** & Farkas, G. (April, 2015). *The misalignment of kindergarten mathematics content.* Paper presented at the 2015 annual meeting for the American Educational Research Association.

Engel, M., Claessens, A., & **Watts, T. W.** (March, 2015). *Rising inequality at school entry: A cross cohort comparison.* Paper presented at the 2015 annual meeting for the American Educational Research Association.

Engel, M., Claessens, A., **Watts, T. W.,** & Farkas, G. (March, 2015). *The misalignment of kindergarten mathematics content.* Paper presented at the 2015 biennial meeting for the Society for Research in Child Development.

Engel, M., Claessens, A., & **Watts, T. W.** (March, 2015). *Rising inequality at school entry: A cross cohort comparison.* Paper presented at the 2015 biennial meeting for the Society for Research in Child Development.

Watts, T. W., Duncan, G. J., Clements, D. H., Sarama, J., Wolfe, C. B., & Spitler, M. E.. (March, 2015). *Preschool growth in mathematics and long-run achievement: An instrumental variables*

approach. Paper presented at the 2015 annual meeting for the Society for Research on Educational Effectiveness.

Watts, T. W., Nguyen, T., Schenke, K., Duncan, G. J., Clements, D. H., Sarama, J., Wolfe, C. B., & Spitler, M. E.. (March, 2015). *Great expectations: The effect of teacher expectations on the mathematics achievement of African American students in a preschool mathematics intervention*. Paper presented at the 2015 annual meeting for the Society for Research on Educational Effectiveness.

Jenkins, J. M., **Watts, T. W.**, Magnuson, K., Gershoff, E., Clements, D. H., Sarama, J., Wolfe, C. B., & Spitler, M. E.. (March, 2015). *Preventing preschool fadeout through instructional intervention in kindergarten and first grade*. Paper presented at the 2015 annual meeting for the Society for Research on Educational Effectiveness.

Engel, M., Claessens, A., **Watts, T. W.**, & Farkas, G. (November, 2014). *The misalignment of kindergarten mathematics content*. Paper presented at the 2014 annual meeting for the Association for Public Policy Analysis and Management.

Engel, M., Claessens, A., & **Watts, T. W.** (November, 2014). *Rising inequality at school entry: A cross cohort comparison*. Paper presented at the 2014 annual meeting for the Association for Public Policy Analysis and Management.

Watts, T.W., Duncan, G. J. *The Groove of Growth: How Early Gains in Math Ability Influence Adolescent Achievement*. (March, 2014). Poster presented at the 2014 Spring meeting for the Society for Research on Educational Effectiveness.

Watts, T.W., Spanier, M., Duncan, G.J. *Predicting adolescent math achievement with preschool math skills*. (April, 2014). Paper presented at the 2014 annual meeting for the American Educational Research Association.

Duncan, G.J., Chen, M., Claessens, A., Davis-Kean, P.E., Duckworth, K., Engel, M., Siegler, R., Susperreguy, M.I., **Watts, T.W.**, (2013, April). *Self-concepts, school placements and executive functioning as mediators of links between early and later school achievement*. Paper presented at the biennial meeting of the Society for Research in Child Development. Seattle, WA.

TEACHING

2019	Primary Instructor , IES-PIRT Pre-Doctoral Workshop; New York University
2017	Primary Instructor , Introduction to Statistics; University of California, Irvine <i>Average score of 4.65 (5-point scale) across all items on end-of-term evaluation</i>
2016	Teaching Assistant , Multiple Regression (graduate course), Professor Greg Duncan
2012	Teaching Assistant , Adolescent Development, Professor Joseph Mahoney

SERVICE WORK

Editorial Board	Developmental Psychology
Journal referee	Psychological Science; Child Development; Developmental Psychology; Development and Psychopathology; Psychology and Neuroscience; NPJ- Science of Learning; Applied Developmental Science; Learning and Individual Differences; Children and Youth Services Review; Educational Researcher; Merrill-Palmer Quarterly

Grant referee	Administration for Children and Families, US Department of Health and Human Services; William T. Grant Foundation
NYU	Mentor for the FOCUS Program (a mentorship program for first-generation college students) Podcast host and editor of “On the Ground” research dissemination project
UC, Irvine	Student Representative- Associated Doctoral Students of Education Student Mentor for the School of Education DECADE Program (a mentorship program for first-generation college students and underrepresented minorities)

SELECTED MEDIA COVERAGE

Misirlsoy, Erman (2019, October 29). The ongoing controversy over the Marshmallow Test. *Medium*. Retrieved from: <https://elemental.medium.com/the-ongoing-controversy-over-the-marshmallow-test-b495db1809be>

Cantor, D. (2018, July 3). Marshmallow Test’s newest surprise: Kids have more self-control today than in the ‘60s. *Forbes*. Retrieved from: <https://www.forbes.com/sites/the74/2018/07/03/marshmallow-tests-newest-surprise-kids-have-more-self-control-today-than-in-the-60s/#16db3b8149f4>

Resnick, B. (2018, June 6). The “Marshmallow Test” said patience was key to success. A new replication tells us s’more. *VOX*. Retrieved from: <https://www.vox.com/science-and-health/2018/6/6/17413000/marshmallow-test-replication-mischel-psychology>

Toppo, G. (2018, June 6). Softening claims of the Marshmallow Test. *Inside Higher Ed*. Retrieved from: <https://www.insidehighered.com/news/2018/06/06/new-findings-cast-doubt-marshmallow-test-success-claims>

Calarco, J.M. (2018, June 1). Why rich kids are so good at the Marshmallow Test. *The Atlantic*. Retrieved from: <https://www.theatlantic.com/family/archive/2018/06/marshmallow-test/561779/>

Adams, R. (2018, June 1). Famed impulse control ‘Marshmallow Test’ fails in new research. *The Guardian*. Retrieved from: <https://www.theguardian.com/education/2018/jun/01/famed-impulse-control-marshmallow-test-fails-in-new-research>

Brueck, H. (2018, May 31). The famous Stanford ‘Marshmallow Test’ suggested that kids with better self-control were more successful. But its being challenged because of a major flaw. *Business Insider*. Retrieved from: <https://www.businessinsider.com/marshmallow-test-of-self-control-may-not-be-correct-2018-5>

Bailey, D. H. (2014, November 13). What’s the point of teaching math in preschool? *Brookings*. Retrieved from: <https://www.brookings.edu/research/whats-the-point-of-teaching-math-in-preschool/>