

# Tyler W. Watts, Ph.D.

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## ACADEMIC POSITIONS

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- 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

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

## EDUCATION

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- 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 (proposal only)  
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 at Austin

## SELECTED AWARDS

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Feb 2021

- 2019 National Institutes of Health- Division of Loan Repayment Program Awardee  
NIH-LRP; Washington, DC
- 2017 Michael Martinez Prize for Outstanding Research and Service  
University of California, Irvine
- 2014 Associated Graduate Student Award for Best Research Presentation (Dean's Prize-  
Education)  
University of California, Irvine

## RESEARCH GRANTS

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- 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: The Respective Roles of Child Self-Regulation and Preschool vs. High School Intervention." 2016-2021, Principal Investigator (as of 2019; previous PI- Cybele Raver, NYU). Total award: ~3.17M; total directly managed by Watts: \$915,446.
- 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, Duke University). Total award: ~3.2M; total directly managed by Watts (though sub-award to TC): \$384,155.
- U.S. Department of Education- Institute for Educational Sciences (IES). "Evaluating the Efficacy of an Interdisciplinary Preschool Curriculum (EPIC)." 2019-2023, Co-Principal Investigator (PI- Julie Sarama, University of Denver). Total award: ~3.2M; total directly managed by Watts (through sub-award to TC): \$230,361.

## PEER-REVIEWED PUBLICATIONS

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- Watts, T. W.**, Nguyen, T., Carr, R. C., Vernon-Feagans, L., & Blair, C. (in press). Examining the effects of changes in classroom quality on within-child changes in achievement and behavioral outcomes. Accepted for publication at *Child Development*.
- Watts, T. W.**, Ibrahim, D. A.\*, Khader, A.\*, Li, C., Gandhi, J.\*, & Raver, C. C (2020). Exploring the impacts of an early childhood educational intervention on later school selection. *Educational Researcher*, 49(9), 667-677. <https://doi.org/10.3102/0013189X20935060>
- Watts, T. W.** (2020). Academic achievement and economic attainment: Reexamining associations between test scores and long-run earnings. *AERA Open*, 6(2), 1-16. <https://doi.org/10.1177/2332858420928985>
- Gandhi, J.\*, **Watts, T. W.**, Masucci, M. D., & Raver, C. C. (2020). The effects of two mindset interventions on low-income students' academic and psychological outcomes. *Journal of Research on Educational Effectiveness*, 13(2), 351-379. <https://doi.org/10.1080/19345747.2019.1711272>
- 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.  
<https://doi.org/10.1177/0956797619893606>

**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 delay of gratification and later outcomes. *Psychological Science*, 29(7), 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., & Duncan, G. J. (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. <https://doi.org/10.1111/cdev.12713>

Schenke, K., Nguyen, T., **Watts, T.W.**, Sarama, J., & Clements, D.H. (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. (2017). Does early mathematics intervention change the processes underlying children's learning? *Journal of Research on Educational Effectiveness*, 10(1), 96-115. 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.chidyouth.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. <https://doi.org/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. <https://doi.org/10.3109/14659891.2012.709913>

\* denotes mentored graduate student

## WORKS IN PROGRESS

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Ahmed, S., Kuhfeld, M., **Watts, T.W.**, Davis-Kean P. E., & Vandell, D. L. Longitudinal associations between preschool executive function skills and adult outcomes: Evidence from The NICHD Study of Early Child Care and Youth Development. Revise and resubmit at *Developmental Psychology*.

**Watts, T.W.**, Li, C., Gandhi, J., & Blair, C. Examining the predictive validity of early childhood measures of effortful control. Preparing for submission to *Developmental Psychology*.

Shea, Z. M., Zhang, Q., Jenkins, J. M., & **Watts, T.W.** Testing the effects of preschool peers in the sustaining environments hypothesis: Student outcomes and teacher mechanisms. Preparing for submission to *Early Childhood Research Quarterly*.

**Watts, T.W.**, Duncan, G.J., & Rivas, M. (2019). *A Reanalysis of Impacts of the Tennessee Voluntary Prekindergarten Program*. (EdWorkingPaper: 19-28). Retrieved from Annenberg Institute at Brown University: <https://doi.org/10.26300/mzk4-jk96>

## INVITED CHAPTERS

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**Watts, T.W.** & Raver C.C. (2020). Promoting equality of educational opportunity by investing early: Recommendations for longitudinal research. In L. Tach, R. Dunifon, & D.L. Miller (Eds.), *APA Bronfenbrenner series on the ecology of human development. Confronting inequality: How policies and practices shape children's opportunities* (pp. 143-163). Washington, DC: American Psychological Association. doi: <http://dx.doi.org/10.1037/0000187-007>

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* (7<sup>th</sup> ed.). New York: Wiley

## INVITED PRESENTATIONS

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*Examining the long-term impacts of the Chicago School Readiness Project.* Invited talk, Boston College. Feb 2020.

*A story without an ending: Early childhood education programs and the ongoing search for long-run effects.* Invited lecture, Department of Education, University of Oslo. May 2019.

*Early Childhood Education and Long-Run Development: Can Predictive Associations Inform Causal Theories?* Invited talk, Teachers College, Columbia University. Feb 2019.

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

*Early Childhood Education and Long-Run Effects: Can Predictive Associations Inform Causal Theories?* Invited talk, Graduate School of Education, Stanford University. Dec 2018.

*Promoting equality of educational opportunity by investing early: Can ECE programs offer long-term as well as short-term benefits?* Invited talk, Bronfenbrenner Center for Translational Research, College of Human Ecology, Cornell University. Oct 2018.

*State pre-kindergarten programs and long-term effects: The puzzle of the TNVPK evaluation.* Invited talk, Graduate School of Education, Harvard University. Oct 2018.

*Early Intervention and Longitudinal Modeling: What Can We Learn from Correlational Work?* Invited talk, Department of Psychology, St. John's University. September 2018.

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

## SELECTED CONFERENCE PRESENTATIONS

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**Watts, T.W.,** Jenkins, J., Carr, R., Dodge, K., Clements, D., & Sarama, J. (November, 2020). *Examining the role of peer effects in a longitudinal evaluation of an early mathematics program.* Paper presented at the 2020 Annual Meeting for Association for Public Policy Analysis and Management. Online conference.

**Watts, T.W.** & Mattera, S. (November, 2020). *Examining sources of heterogeneity in a multi-site evaluation of a mathematics curriculum intervention.* Paper presented at the 2020 Annual Meeting for Association for Public Policy Analysis and Management. Online conference.

**Watts, T.W.** (January, 2020). *The long-term effects of the Chicago School Readiness Project.* Invited presentation at the 2020 Institute of Educational Sciences Annual Principal Investigators Meeting. Washington, D.C.

**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.,** Ibrahim, D., Khader, A., Gandhi, J., & Raver, C. C. (March, 2019). *The effect of early intervention on later school selection.* Paper presented at the 2019 biennial meeting for the Society for Research in Child Development. Baltimore, MD.

**Watts, T.W.,** Duncan, G. D., & Rivas, M. (March, 2019). *A reanalysis of impacts of the Tennessee Voluntary Prekindergarten Program*. Paper presented at the 2019 annual meeting for the Society for Research on Educational Effectiveness. Washington, DC.

**Watts, T.W.,** Ibrahim, D., Khader, A., Gandhi, J., & Raver, C. C. (October, 2018). *Getting in: The effect of early intervention on later school selection*. Paper presented at the 2018 SRCD special topic meeting-Conference on the use of secondary and open source data in Developmental Science. Phoenix, AZ.

**Watts, T.W.,** Gandhi, J., & Raver, C.C. (April, 2018). *The impact of the Chicago School Readiness Project on adolescent executive functioning 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., Ibrahim, D., & 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 Association for Education Finance and Policy. 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. Philadelphia, PA.

**Watts, T. W.,** (April, 2017). *Revisiting the correlation between adolescent academic achievement and adult economic success*. Paper presented at the 2017 biennial meeting for the Society for Research in Child Development. Austin, TX.

**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. Washington, DC.

**Watts, T. W.,** Duncan, G. J, Clements, D. H., Sarama, J., Wolfe, C. B., & Spitler, M. E. (November, 2015). *Preschool growth in mathematics and long-run achievement: An instrumental variables approach*. Paper presented at the 2015 annual meeting for the Association for Public Policy Analysis and Management. Miami, FL.

**Watts, T. W.,** Duncan, G. J, Clements, D. H., Sarama, J., Wolfe, C. B., & Spitler, M. E. (April, 2015). *Preschool growth in mathematics and long-run achievement: An instrumental variables approach*. Paper presented at the 2015 annual meeting for the American Educational Research Association. Chicago, IL.

**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 biennial meeting for the Society for Research in Child Development. Philadelphia, PA.

**Watts, T. W.,** Duncan, G. J., Clements, D. H., Sarama, J., Wolfe, C. B., & Spitler, M. E. (March, 2015). *Great expectations: The effect of high 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. Washington, DC.

**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. Philadelphia, PA.

## TEACHING

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2020-present	<b>Primary Instructor,</b> Capstone in Developmental Psychology; Teachers College, Columbia University
2020-present	<b>Primary Instructor,</b> Methods of Empirical Research; Teachers College, Columbia University
2019	<b>Primary Instructor,</b> IES-PIRT Seminar on Causal Inference in Education; New York University
2017	<b>Primary Instructor,</b> Statistics for Education Research (i.e., Introduction to Statistics); University of California, Irvine
2016	<b>Teaching Assistant,</b> Applied Regression Analysis for Education and Social Research (graduate course), Professor Greg Duncan
2012	<b>Teaching Assistant,</b> Adolescent Development, Professor Joseph Mahoney

## SERVICE WORK

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Editorial Board	Developmental Psychology (2020 – present)
Guest Editor	Frontiers in Psychology (2020-2021)- <i>The Potential of School-Based Interventions that Target Executive Function</i>
Journal referee	AERA Open; American Journal of Community Psychology; Applied Developmental Science; British Journal of Developmental Psychology; Child Development; Developmental Psychology; Development and Psychopathology; Early Childhood Research Quarterly; Economics of Education Review; Educational Researcher; Educational Evaluation and Policy Analysis; Emotion; Journal of Applied Developmental Psychology; Journal of Educational Psychology; Learning and Individual Differences; Learning and Instruction; Merrill-Palmer Quarterly; NPJ-Science of Learning; PLOS One; Psychology and Neuroscience; Psychological Science; Youth and Society
Conference referee	Society for Research in Child Development; Society for Research on Educational Effectiveness
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)
Teachers College	Psychology Faculty Coordinating Committee (2020-present)

## SELECTED MEDIA COVERAGE

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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/>