

EXPERIENCE OVERVIEW

Dr. Duncan has over 24 years of post-doctoral research experience in applied research and evaluation. Her methodological expertise is in experimental and quasi-experimental designs, program evaluation, survey development, and applied educational and psychological measurement. As an educational psychologist, Dr. Duncan is interested in teaching and learning from pre-K to 16; her content area expertise is in the areas of teacher professional development and student learning, cognition, and achievement, including interventions for at-risk students.

Dr. Duncan currently serves as a co-principal investigator for a large randomized controlled trial (RCT) at Chicago that focuses on the impact of Math for All (a professional development program in mathematics) on the instructional practices and pedagogical content knowledge of elementary school teachers (regular classroom and special education) and on the mathematics achievement of their students. Since 2012, other recent projects include a randomized controlled trial in Philadelphia focusing on improving absenteeism; an examination of states' policies on compulsory school attendance, an assessment of rural students' cognitive and affective engagement; an analysis of the effects of a principal coaching program; three formative evaluations (on early childhood readiness teams in Delaware; of the District of Columbia student re-engagement center; and of a STEM high school initiative in Maryland) and serving on several National Science Foundation (NSF) grants as the external evaluator. She is also an accomplished administrator: from 2012-2017, she successfully led the Regional Educational Laboratory for the Mid-Atlantic Region (REL MA), a five-year federal contract valued at \$27,182,241.

Prior to establishing Deacon Hill Research Associates LLC, Dr. Duncan was a Senior Fellow (2010-2015), then an Expert Consultant at ICF International (2015-present). She was a Principal Research Analyst at the American Institutes for Research (1999-2010) and an Assistant Professor at the University of Texas at Austin (1993-1999), where she held a joint appointment between the Quantitative Methods and the Learning, Cognition, and Instruction domains in the Department of Educational Psychology. Dr. Duncan is the author or co-author of publications appearing in peer-reviewed journals such as *Educational and Psychological Measurement*, *Applied Measurement in Education*, and *Educational Psychologist*.

Qualification Highlights

- Management of large-scale projects and experimental and quasi-experimental methodologies specializations.
- 24 years of post-doctoral research experience in applied research and evaluation.
- Director of REL MA, 2012-2017.
- Project coordinator and deputy director of WWC; PI of multiple IES-funded research studies; external evaluator for multiple NSF-funded grants.
- Experienced project director with a proven history of responsiveness and high-quality work on large IES contracts (REL MA, REL Northeast and Islands, REL Southwest, WWC).

Education

- Ph.D., Educational Psychology, University of Michigan, Ann Arbor, MI, 1993
- M.A., Psychology, University of Michigan, Ann Arbor, MI, 1990
- B.A., Psychology, cum laude, University of Rochester, Rochester, NY, 1987

Certifications and Training

- Classroom Assessment Scoring System (CLASS), Certified Upper Elementary Observer, Teachstone (July 2015–July 2018)
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PROJECT EXPERIENCE

Co-Principal Investigator (PI), Math for All: Assessing the Efficacy of a Professional Development Program for Elementary School Teachers, Subaward to EDC's IES Grant, 2014–Present. Provides technical leadership on this randomized controlled trial testing the impact of the Math for All professional development program on elementary school and special education teachers' knowledge and skills and on student achievement. Responsible for training and leading a team of researchers to collect data at the Chicago Public Schools, overseeing data management and data analysis, and writing reports for multiple audiences.

Director, Regional Educational Laboratory for the Mid-Atlantic Region (REL MA), 2012–2017. Led a large team of ICF staff and subcontractors to work in partnership with policymakers, practitioners, and communities in implementing education reform. Responsibilities included providing oversight and direction to ICF staff, subcontractor organizations, and consultants; coordinating project-wide staffing, budget, and timelines; and serving as a key contact to ED. Translated complex research findings to plain language to appeal to a wide and diverse audience. Led internal quality assurance reviews to ensure technical support projects and research studies meet What Works Clearinghouse (WWC) standards for evidence and dissemination products conform to the highest standards of excellence. Lead or co-author of multiple research studies and technical support projects. Represented the REL at Governing Board meetings, conferences, and online events.

External Evaluator, National Science Foundation (NSF) Grants for Teacher Residency Academy Alliance (2011–2014), Differentiating Professional Development (2010–2014), and Supporting Staff Developers (2008–2014). Led research and evaluation activities including design, data collection, analysis, and report writing. Served as a resource to project staff on the research design and instruments; provided commentaries and written reviews of: 1) the instruments (protocols, surveys, and standardized tests), 2) design of the pilot study, 3) data analysis plans, and 4) draft reports.

Senior Research Extension Specialist, REL MA, 2010–2011. Served as a quality assurance reviewer on research proposals and final reports; conducted needs analyses with local state education agencies (DE, DC, MD, NJ, and PA); developed new research proposals based on needs analyses.

Principal Research Analyst, American Institutes for Research (AIR), 2006–2010. Provided expertise in student learning and cognition, evaluation, experimental and quasi-experimental study designs, and quantitative data analysis. Supervised teams of analysts and research assistants. Maintained client and sub-contractor relationships. Developed, monitored, and maintained task budgets and timelines. Made formal presentations to clients and technical advisory committees. Led and contributed to business development efforts, and to the writing of proposals and technical reports. Served as PI for two REL Northeast and Islands randomized field trials under AIR's subcontract to EDC. Coordinated AIR's tasks under the REL Southwest subcontract to Edvance Research, Inc. Responsible for ensuring the rigor, accuracy, and quality of technical documents (including study design plans, power analyses, analysis plans, recruitment plans, data collection protocols), data analyses, and study reports (e.g., briefings, interim and final reports).

Deputy Project Director, What Works Clearinghouse, 2006–2007. Provided oversight and direction to seven evidence review teams and to subcontractor organizations; coordinated project-wide staffing, budget, and timelines. Served as a key contact to ED. Identified, anticipated, and addressed possible problems/issues in processes and timelines. Managed and ensured quality of intervention reports and technical appendices, WWC website, and databases. Ensured effective project functioning at all levels.



Project Coordinator, What Works Clearinghouse, Beginning Reading Evidence Reports (2002-2006).

While employed at the American Institutes for Research, responsibilities included reviewing interventions, supervising technical staff, managing timelines and budgets, facilitating communication between senior advisors and technical staff, and handling communications with developers, authors, and the public.

SELECTED PUBLICATIONS AND PRESENTATIONS

- Rogers, T., Duncan, T. G., Wolford, T., Ternovski, J., Subramanyam, S., & Reitano, A. (2017). *A randomized experiment using absenteeism information to “nudge” attendance. (REL 2017–252)*. Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Mid-Atlantic. Retrieved from <http://ies.ed.gov/ncee/edlabs>.
- Dilworth, M. E., McHenry, W., Williams, D. D., Little, L. M., Hale, R. P., & Duncan, T. G. (2016). Increasing the pipeline of highly qualified STEM teachers: The Teacher Residency Academy Alliance. In *The 2015 Compendium of U.S. Government Sponsored Research and Programs at Historically Black Colleges and Universities*. Washington, DC: White House Initiative on Historically Black Colleges and Universities.
- Hitchcock, J. H., Duncan, T. G., & O’Conner, R. (2016, April). *Lessons learned about designing an RCT for the real world*. Paper presented at “Math for All: Lessons Learned from Piloting an RCT in a Large Urban District,” a symposium at the annual meeting of the American Educational Research Association, Washington, DC.
- Duncan, T. G. (Session Organizer and Chair). (2016, April). *Studies of rural students’ college enrollment and persistence in Pennsylvania, Oregon, and Indiana*. Symposium presented at the annual meeting of the American Educational Research Association, Washington, DC.
- Duncan, T. G. & O’Conner, R. (2016, April). *Lessons learned about videotaping and coding classroom observations*. Paper presented at “Math for All: Lessons Learned from Piloting an RCT in a Large Urban District,” a symposium at the annual meeting of the American Educational Research Association, Washington, DC.
- Duncan, T.G., O’Conner, R., & Schoeneberger, J. (2017, April). Using classroom observations to assess the efficacy of the Math for All PD program. Paper presented at a symposium, “Presentation of a Mixed-Methods Randomized Controlled Trial Design and Lessons Learned (So Far)” the annual meeting of the American Educational Research Association, San Antonio, TX.
- Blitz, C. L., Palmer, R. T., Duncan, T. G., & Hawkins, E. (2015, April). Profiles of programmatic initiatives to increase student retention and persistence at a Mid-Atlantic historically black university. Report presented to the Mid-Atlantic Historically Black Colleges and Universities (HBCUs) College Completion Research Alliance, Washington, DC.
- Duncan, T. G., Falls, K., & De Feyter, J. (2015). *Formative evaluation of the Delaware Readiness Teams Initiative*. Report presented to the Delaware Readiness Teams Advisory Committee and the Office of Early Learning of the Delaware Department of Education, Wilmington, DE.
- Duncan, T. G. & Johnson, J. D. (2014). *Affective and cognitive engagement among rural students in Pennsylvania*. Report presented to Pennsylvania Intermediate Units 9 and 17, Bradford, PA.

- Duncan, T. G., Passa, A., Remedios, R., & De Feyter, J. (2014). *Examination of the Delaware Development Coaches Program*. Report presented to the Delaware Department of Education, Dover, DE.
- Mackey, P. M. & Duncan, T. G. (2013). *Does raising the state compulsory school attendance age achieve its intended outcomes?* (REL 2014–005). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Mid-Atlantic.
- Drummond, K., Chinen, M., Duncan, T. G., Miller, H. R., Fryer, L., Zmach, C., & Culp, K. (2011). *Impact of the Thinking Reader® software program on grade 6 reading vocabulary, comprehension, strategies, and motivation* (NCEE 2010-4035). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance.
- Ferrara, S. & Duncan, T. G. (2011). Comparing the achievement constructs targeted and achieved in a statewide middle school science assessment. *The Educational Forum*, 75(2), 143–156.
- Yoon, K. S., Duncan, T., Lee, S. W.-Y., Scarloss, B., & Shapley, K. (2007). *Reviewing the evidence on how teacher professional development affects student achievement* (Issues & Answers Report, REL 2007–No. 033). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southwest.
- Ferrara, S. & Duncan, T. G. (2006). *Aligning item demands and item targets: A handbook for achieving item construct validity*. Washington, DC: American Institutes for Research.
- Duncan, T. G., Parent, L. D. R., Chen, W. H., Ferrara, S., Johnson, E., Oppler, S., & Shieh, Y. Y. (2005). Study of a dual language test booklet in 8th grade mathematics. *Applied Measurement in Education*, 18(2), 129–161.

PROFESSIONAL AFFILIATIONS

- Member, American Educational Research Association, 1989–Present
- Member, American Evaluation Association, 2005–Present
- Member, Society for Research on Educational Effectiveness, 2005–Present

EMPLOYMENT HISTORY

Deacon Hill Research Associates, LLC	President and Founder	2015–Present
ICF	Expert Consultant	2015–Present
	Senior Fellow	2010–2015
American Institutes for Research	Principal Research Analyst	2006–2010
	Senior Research Analyst	2000–2006
	Research Analyst	1999–2000
University of Texas at Austin	Assistant Professor	1993–1999
University of Michigan, Summer Institute for Survey Research	Visiting Professor	1996–1999

