

Megan Kuhfeld

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Education

- 2016 **Ph.D.**, *Quantitative Methods in Education*, University of California, Los Angeles (UCLA)
- 2016 **M.S.**, *Statistics*, University of California, Los Angeles (UCLA)
- 2009 **B.S.**, *Psychology*, Duke University

Professional History

- 2020– **Senior Research Scientist**, NWEA
- 2017–2020 **Research Scientist**, NWEA
- 2016–2017 **Postdoctoral Fellow**, *The University of Texas at Austin*, Population Research Center
- 2016 **Senior Statistician**, *National Center for Research on Evaluation, Standards, and Student Testing (CRESST)*
- 2012–2015 **Graduate Student Researcher**, *UCLA Graduate School of Education & Information Studies*
- 2012–2014 **Research Associate**, *Los Angeles Education Research Institute (LAERI)*
- 2009–2011 **Senior Research Assistant in Education**, *Child Trends*

Publications

- Soland, J. & **Kuhfeld, M.** (in press). A multi-rater latent growth curve model. *Multivariate Behavioral Research*
- Domingue, B., Kanopka, K., Stenhaus, B., Soland, J., **Kuhfeld, M.**, Wise, S., & Piech, C. (in press). Interplay between speed and accuracy: Novel empirical insights based on 1/4 billion item responses. *Journal of Educational Measurement*
- Soland, J. & **Kuhfeld, M.**, Rios, J. (in press). Comparing different response time threshold setting methods to detect low effort on a large-scale assessment. *Journal of Large Scale Assessment*
- Johnson, A. & **Kuhfeld, M.** (in press). Impacts of school entry age on academic growth through 2nd grade: A multi-state regression discontinuity analysis. *Journal of Research on Educational Effectiveness*

- Kuhfeld, M.**, Condron, D., & Downey, D. (2021). When does inequality grow? A seasonal analysis of racial/ethnic disparities in learning in kindergarten through eighth grade. *Educational Researcher*
- Kuhfeld, M.** & Soland, J. (2021). The learning curve: Revisiting within-year linear growth assumptions. *Journal of Research on Educational Effectiveness*, 14:1, 143-171.
- Johnson, A., **Kuhfeld, M.**, & King, G. (2021). Catching up or falling behind: Measuring middle school achievement trajectories for college readiness. *Educational Policy*
- Wise, S. & **Kuhfeld, M.** (2021). A method for identifying partial test-taking engagement. *Applied Measurement in Education*
- Kuhfeld, M.**, Soland, J., Tarasawa, B., Johnson, A., Ruzek, E., & Liu, J. (2020). Projecting the potential impacts of COVID-19 school closures on academic achievement. *Educational Researcher*, 49(8), 549–565.
- Kuhfeld, M.** & Soland, J. (2020). Estimating student growth on psychological and social-emotional constructs: A comparison of multiple scoring approaches. *Psychological Methods*
- Kuhfeld, M.**, Soland, J., Pitts, C., & Burchinal, M. (2020). Trends in children's academic skills at school entry: 2010 to 2017. *Educational Researcher*, 49(6), 403–414.
- Wise, S. & **Kuhfeld, M.** (2020). Re-test to calculate better effort moderated scores. *Journal of Educational Measurement*.
- Pitts, C. & **Kuhfeld, M.** (2020). Mind the kinder-gap: New data on children's math and reading skills as they enter kindergarten. *Phi Delta Kappan*.
- Soland, J. & **Kuhfeld, M.** (2020). Do response styles affect estimates of growth on social-emotional constructs? Evidence from four years of longitudinal survey scores. *Multivariate Behavioral Research*
- Kuhfeld, M.** & Soland, J. (2020). Using assessment metadata to quantify the impact of test disengagement on estimates of educational effectiveness. *Journal of Research on Educational Effectiveness*, 13(1), 147-175.
- Kuhfeld, M.**, Domina, T, Hanselman, P. (2019). Validating the SEDA measures of district educational opportunities via a common assessment. *AERA Open*, 5(2), 1-18
- Soland, J. & **Kuhfeld, M.** (2019). Do students rapidly guess repeatedly over time? A longitudinal analysis of student test disengagement, background, and attitudes. *Educational Assessment*, 24(4),327-342.
- Soland, J. & **Kuhfeld, M.**, Wolk, E., Bi, S. (2019). Is social-emotional learning stable across school years? Implications for practice, policy, and evaluation. *Journal of Research on Educational Effectiveness*, 12(3), 550-577.
- Kuhfeld, M.** (2019). Surprising new evidence on summer learning loss. *Phi Delta Kappan*, 101(1), 25-29.

Wise, S., **Kuhfeld, M.**, & Soland, J. (2019). The effects of effort monitoring with proctor notification on test-taking engagement, test performance, and validity. *Applied Measurement in Education*, 32(2), 183-192.

Kuhfeld, M. (2019). A posterior predictive model checking method assuming posterior normality for item response theory. *Applied Psychological Measurement*, 43(2), 125-142.

Kuhfeld, M., Gershoff, E., & Paschall, K. (2018). The development of racial/ethnic and socioeconomic achievement gaps during the school years. *Journal of Applied Developmental Psychology*, 57, 62-73.

Paschall, K., Gershoff, E., & **Kuhfeld, M.** (2018). A two decade examination of historical racial/ethnic disparities in academic achievement by poverty status. *Journal of Youth and Adolescence*, 47(6), 1164-1177.

Kuhfeld, M. (2017). When students grade their teachers: A validity analysis of the Tripod student survey. *Educational Assessment*, 22(4), 253-274.

Kuhfeld, M. & Sturm, S. (2017). An examination of the precision of ADOS using item response theory. *Psychological Assessment*, 30(5), 656-668.

Sturm, A., **Kuhfeld, M.**, Kasari, C., & McCracken, J.T. (2017). Can measurement of core autism severity be improved? An application of item response theory. *Journal of Child Psychology and Psychiatry*, 58(9), 1053-1061.

Lee, T., Cai, L., & **Kuhfeld, M.** (2015). A poor person's posterior predictive checking of structural equation models. *Structural Equation Modeling: A Multidisciplinary Journal*, 23(2), 206-220.

Tucker, M.S, Shadel, W.G., Edelen M.O., Stucky, B.D., **Kuhfeld, M.**, Hansen, M., & Cai, L. (2014). Development of the PROMIS® social motivations item bank. *Nicotine & Tobacco Research*, 16(3), S241-S249.

Stucky, B.D., Edelen M.O., Tucker, M.S, Shadel, W.G., Cerully, J., **Kuhfeld, M.**, Hansen, M., & Cai, L. (2014). Development of the PROMIS® negative psychosocial expectancies item bank. *Nicotine & Tobacco Research*, 16(3), S241-S249.

Manuscripts Under Review

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

Vandell, D., **Kuhfeld, M.**, & Gershoff, E. (revise & resubmit). Are the frequency and timing of school moves related to peer relationships, behavior problems, and academic achievement during elementary school? *Journal of Applied Developmental Psychology*

Condrón, D., **Kuhfeld, M.**, & Downey, D. (revise & resubmit). Schools as refractors: Inequality in academic skills while school is in versus out of session. *Sociology of Education*

Soland, J. & **Kuhfeld, M.** (revise & resubmit). Examining the performance of the trifactor model for multiple raters. *Applied Psychological Measurement*

Soland, J. & **Kuhfeld, M.** (revise & resubmit). Identifying students who are off-track academically in 9th grade: The role of social-emotional learning trajectories. *British Journal of Educational Psychology*

Sturm, A., Huang, S., & **Kuhfeld, M.** (revise & resubmit). Advancing methodologies to improve RRB outcome measures in autism research: Evaluation of the RBS-R. *Psychological Assessment*

Soland, J., Rimm-Kaufman, S., **Kuhfeld, M.**, & Ventura-Abbasm, N. (under review). Empirical benchmarks for changes in social-emotional skills over time. *Educational Researcher*

Johnson, A., **Kuhfeld, M.**, & Soland, J. (under review). A Longitudinal Analysis of Achievement in Rural Schools. *AERA Open*

Dallavis, J., **Kuhfeld, M.**, Tarasawa, B., & Ponisciak, S. (under review). Achievement growth in K-8 Catholic schools using NWEA data. *Journal of Catholic Education*

Downey, D., **Kuhfeld, M.**, & van Hek, M. (under review). Schools as a relatively standardizing institution: The case of gender gaps in cognitive skills. *Sociology of Education*

Wise, S., **Kuhfeld, M.**, & Cronin, J. (under review). Comparing test disengagement and proctoring with remote vs. in-person tests *Educational Assessment*

Davis-Kean, P., Domina, T., **Kuhfeld, M.**, Gershoff, E., & Ellis, A. (under review). It matters how you start: Early numeracy mastery predicts high school math course-taking and college attendance. *Infant and Child Behavior*

Book Chapters/Reports

Schweig, J., McEachin, A., **Kuhfeld, M.**, Mariano, L., & Diliberti, M. (Feb. 2021). Adapting course placement processes in response to COVID-19 disruptions: Guidance for schools and districts. RAND Cooperation.

Kuhfeld, M. Tarasawa, B., Johnson, A., Ruzek, E., Lewis, K. (Nov. 2020). Learning during COVID-19: Initial findings on students' reading and math achievement and growth. NWEA.

Thum, Y.M. & **Kuhfeld, M.** (July 2020). NWEA 2020 MAP Growth achievement status and growth norms for students and schools. NWEA Research Report. NWEA.

Kuhfeld, M. & Tarasawa, B. (2020). The COVID-19 slide: What summer learning loss can tell us about the potential impact of school closures on student academic achievement. NWEA.

Wise, S. & **Kuhfeld, M.** (2020). A Cessation of Measurement: Identifying Test Taker Disengagement Using Response Times. In Margolis, M., & Feinberg, R. (Eds.) *Integrating Timing Considerations to Improve Testing Practices 1st Edition*. New York, NY: Routledge.

Cai, L., Choi, K., & **Kuhfeld, M.** (2016). On the role of multilevel item response models in multi-site evaluation studies for serious games. In O'Neil, H. F., Baker, E. L., & Perez, R. (Eds.) *Using Games and Simulations for Teaching and Assessment*. New York, NY: Taylor & Francis.

Lippman, L., Moore, K. A., Guzman, L., Ryberg, R., McIntosh, H., Caal, S., Ramos, M., Carle, A., & **Kuhfeld, M.** (2014). *Flourishing children: Defining and testing indicators of positive development*. Heidelberg, Germany: Springer.

Porter, L., Guzman, L., **Kuhfeld, M.**, Caal, S., Rodrigues, K., Moodie, S., Chrisler, A. & Ramos, M. (2012). Family-provider relationship quality: Review of existing measures of family-provider relationships. OPRE Report 2012-47. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families.

Boccanfuso, C. & **Kuhfeld, M.** (2011). *Multiple responses, promising results: Evidence-based, nonpunitive alternatives to zero tolerance*. Washington DC: Child Trends.

Kuhfeld, M., Ballard, F., Bronte-Tinkew, J., Whitney, C., Burkhauser, M., Mbwana, K., & Lilja, E. (2009). The program for agreement and cooperation in contested custody cases 2007-2009 implementation and outcomes evaluation report.

Honors and Awards

- 2019–2021 **AERA-SRCD Early Career Fellowship in Middle Childhood Education and Development**
Awarded by the American Educational Research Association (AERA) and the Society for Research on Child Development (SRCD).
- 2017 **NCME Brenda H. Loyd Outstanding Dissertation Award**
Awarded by the National Council on Measurement in Education (NCME)
- 2015 **SMEP Graduate Student Travel Award**
Awarded by the Society of Multivariate Experimental Psychology (SMEP)
- 2014 **Psychometric Society/ETS Student Travel Award**
Awarded by the Educational Testing Service (ETS)

Grants and Fellowships

- 2020–2022 **Co-Principal Investigator, Using student achievement data to monitor progress and performance methodological challenges presented by COVID-19**
Awarded by the Institute of Education Sciences (IES), \$61,000
- 2016–2017 **AERA Postdoctoral Fellowship for the Study of Deeper Learning**
Awarded by the American Educational Research Association (AERA), \$20,000.
- 2014–2015 **AERA-MET Dissertation Fellowship**
Awarded by the American Educational Research Association (AERA), \$20,000.
- 2013 **Graduate Summer Research Mentorship (GSRM) Grant**
Awarded by UCLA Graduate Division, \$6,000
- 2011–2014 **Institute of Education Sciences (IES) Pre-doctoral Training Fellowship**
Division of Social Research Methodology, UCLA Graduate School of Education and Information Studies

Podcasts/Media Appearances

- Jan. 2021 The Report Card with Nate Malkus. Estimating Covid learning loss.
- Jan. 2021 CPRE Research Minutes Podcast. Projections of pandemic learning loss were too pessimistic, a new study suggests.
- Dec. 2020 EdNext Podcast. Projections of pandemic learning loss were too pessimistic, a new study suggests.
- Oct. 2020 AERA Newsroom. Projecting the potential impact of COVID-19 school closures on academic achievement.
- May 2020 NPR Morning Edition. Researchers examine long-term effects of students being out of school.
- May 2020 Inside the Mind. The COVID-19 slide: Research on learning loss with Dr. Megan Kuhfeld.

Invited Talks

- March 2021 **Kuhfeld, M.** *Supercharging Academics and Enrichment in the Summertime*. Invited speaker in the National Summer Learning Association Summer Bootcamp.
- Dec 2020 **Kuhfeld, M.** *COVID and the schools: Modeling openings, closings, and learning loss*. Invited speaker in the NISS Ingram Olkin Forum.
- Oct 2020 **Kuhfeld, M.** *A "lost year of data": What disruptions from COVID-19 mean for educational research*. Invited speaker in Bellwether webinar.
- Oct 2020 **Kuhfeld, M.** *Projecting the impact of the COVID-19 spring school closures on student learning*. Invited talk at the Center for Educational Policy Analysis (CEPA), Stanford University, Palo Alto, CA.
- Feb 2020 **Kuhfeld, M.** *Using ECLS-K:2010-11 for secondary research*. Invited talk at the AERA-NSF Statistical Institute, Laguna Beach, CA.
- Feb 2017 **Kuhfeld, M.** *An exploration of divergence within multi-informant assessments using IRT*. Invited talk at the Department of Quantitative Methods, College of Education, Austin, TX.
- May 2015 **Kuhfeld, M.** *An examination of sources of misfit in multilevel confirmatory factor analysis*. Invited talk at Educational Testing Service (ETS), Princeton, NJ.

Presentations

- April 2019 **Kuhfeld, M.** *The development of racial/ethnic gaps from kindergarten to 8th grade: A seasonal comparison study*. Paper presented at the American Educational Research Association (AERA), Toronto, Canada.
- April 2019 Monroe, S., **Kuhfeld, M.**, Kibrislioglu, N. *Level-specific evaluation of model fit in item response theory*. Paper presented at the National Council on Measurement in Education (NCME). Toronto, Canada.
- April 2019 **Kuhfeld, M.** & Thum, Y.M. *Visualizing student and school achievement and growth using Shiny*. Paper presented at the National Council on Measurement in Education (NCME). Toronto, Canada.

- April 2019 **Kuhfeld, M.** & Soland, J. *Using assessment metadata to quantify the impact of test disengagement on estimates of educational effectiveness* Paper presented at the National Council on Measurement in Education (NCME). Toronto, Canada.
- March 2019 **Kuhfeld, M.** & Soland, J. *Is social-emotional learning (SEL) a state or a trait? Examining the stability of SEL across three years.* Paper presented at the Society for Research on Educational Effectiveness (SREE). Washington, DC.
- April 2018 **Kuhfeld, M.** *Psychometric properties of a measure of students' interpersonal and intrapersonal skills.* Paper presented at the National Council on Measurement in Education. New York, NY.
- March 2018 **Kuhfeld, M.** *Summer learning loss and student learning trajectories.* Paper presented at the Society for Research on Educational Effectiveness (SREE). Washington, DC.
- April 2017 **Kuhfeld, M.** *A psychometric analysis of the Tripod student perceptions survey.* Paper presented at the National Council on Measurement in Education (NCME). San Antonio, TX.
- April 2017 Schenke, K. & **Kuhfeld, M.** *How do teachers change the distribution of their classroom's achievement.* Paper presented at the American Educational Research Association (AERA), San Antonio, TX.
- April 2017 **Kuhfeld, M.** & Sturm, A. *Psychometric properties of the Social Responsiveness Scale (SRS).* Poster presented at the Society for Research on Child Development (SRCDD). Austin, TX.
- April 2016 **Kuhfeld, M.** *Multilevel testlet item factor analysis model for school-level instructionally-meaningful subscores.* Paper presented at the National Council on Measurement in Education. Washington, DC.
- October 2015 **Kuhfeld, M.** *An interpretive validity analysis of the Tripod survey: Re-examining the seven C's.* Poster presented at the annual meeting of the Society of Multivariate Experimental Psychology (SMEP). Redondo Beach, CA.
- July 2015 **Kuhfeld, M.** & Cai, L. *Multilevel item factor analysis models for group-level inferences.* Paper presented at the International Meeting of the Psychometric Society. Beijing, China.
- April 2015 **Kuhfeld, M.** & Cai, L. *Multilevel item factor analysis of student ratings of instructional practice: A comparison of scoring approaches.* Paper presented at the National Council on Measurement in Education. Chicago, IL.
- Nov. 2014 Cai, L., Choi, K., & **Kuhfeld, M.** *On the importance of integrated psychometrics and multilevel impact estimation in multi-site RCTs: Lessons learned from CATS.* Paper presented at the Advances in Multilevel Modeling for Educational Research: Addressing Practical Issues Found in Real-World Applications conference. College Park, MD.
- Nov. 2014 **Kuhfeld, M.** *Multilevel item factor analysis of student ratings of instructional practice.* Poster presented at the Advances in Multilevel Modeling for Educational Research: Addressing Practical Issues Found in Real-World Applications conference. College Park, MD.
- July 2014 **Kuhfeld, M.** & Cai, L. *Examining model fit in two-level Exploratory Factor Analysis models.* Paper presented at the International Meeting of the Psychometric Society. Madison, WI.
- April 2014 **Kuhfeld, M.** & Cai, L. *PPMC-analogous approach to testing model fit in multilevel categorical CFA.* Poster presented at the National Council on Measurement in Education. Philadelphia, PA.

- July 2013 **Kuhfeld, M.** & Cai, L. *The use of Jeffreys' prior in unidimensional IRT estimation of latent ability.* Paper presented at the International Meeting of the Psychometric Society. Arnhem, Netherlands.
- April 2013 **Kuhfeld, M.** & Cooper, H. *Do later high school start times positively or negatively affect schools and families?* Poster presented at American Educational Research Association (AERA), San Francisco, CA.

Professional Activities

- professional service Graduate student board member, California Education Research Association (CERA) (2014-15)
- editorial board Journal of Educational Measurement (JEM)
- affiliations American Education Research Association
National Council on Measurement in Education
Psychometric Society
- university service Student Representative, Graduate Students Association in Education (2013-14; 2014-15)