

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.**, Register, B. (in press). A comparison of methodologies for scaling longitudinal social-emotional survey responses. *Educational Assessment*

Kuhfeld, M., Soland, J., Lewis, K., Ruzek, E., & Johnson, A. (2022). The COVID-19 school year: Learning and recovery across 2020-21. *AERA Open*, 8(1), 1–15.

Kuhfeld, M., Lewis, K., & Peltier, T. (2022). Reading achievement declines during the COVID-19 pandemic: Evidence from 5 million U.S. students in grades 3-8. *Reading and Writing*

Kuhfeld, M., Soland, J., & Lewis, K. (2022). Measuring social-emotional learning outcomes when teachers and parents disagree about students: Implications for measurement and long-term outcomes. *Psychological Assessment*

Kuhfeld, M., Soland, J., & Lewis, K. (2022). Test score patterns across three COVID-19-impacted school years. *Educational Researcher*, 51(7), 500– 506.

- Soland, J., **Kuhfeld, M.**, & Edwards, K. (2022). How survey scoring decisions can bias your study's results: A trip through the IRT looking glass. *Psychological Methods*
- Schweig, J., McEachin, A., **Kuhfeld, M.**, & Diliberti, M. (2022). Allocating resources for COVID-19 recovery: A comparison of three indicators of school need. *Educational Assessment*, 27(2), 152-169.
- Wise, S., **Kuhfeld, M.**, & Cronin, J. (2022). Comparing test disengagement and proctoring with remote vs. in-person tests *Educational Assessment*, 27(2), 136-151.
- Kuhfeld, M.** & Soland, J. (2022). Avoiding bias from sum scores in growth estimates: An examination of IRT-based approaches to scoring longitudinal survey responses. *Psychological Methods*, 27(2), 234-260.
- Soland, J., Rimm-Kaufman, S., **Kuhfeld, M.**, & Ventura-Abbas, N. (2022). Empirical benchmarks for changes in social-emotional skills over time. *Child Development*, 93(4), 1129-1144.
- Soland, J. & **Kuhfeld, M.** (2022). Identifying students who are off-track academically in 9th grade: The role of social-emotional learning trajectories. *British Journal of Educational Psychology*, 92(2), e12463.
- Davis-Kean, P., Domina, T., **Kuhfeld, M.**, Gershoff, E., & Ellis, A. (2022). It matters how you start: Early numeracy mastery predicts high school math course-taking and college attendance. *Infant and Child Behavior*, 31(2), e2281.
- Downey, D., **Kuhfeld, M.**, & van Hek, M. (2022). Schools as a relatively standardizing institution: The case of gender gaps in cognitive skills. *Sociology of Education*, 95(2), 89-109.
- Sturm, A., Huang, S., & **Kuhfeld, M.** (2022). Advancing methodologies to improve RRB outcome measures in autism research: Evaluation of the RBS-R. *Psychological Assessment*, 34(1), 30-42.
- Soland, J. & **Kuhfeld, M.** (2022). Examining the performance of the trifactor model for multiple raters. *Applied Psychological Measurement*, 46(1), 53-67.
- Wood, J., **Kuhfeld, M.**, Sturm, A., et al. (2022). Personalized autism symptom assessment with the Youth Top Problems scale: Observational and parent-report formats for clinical trials applications. *Psychological Assessment*, 34(1), 43-57.
- Soland, J. & **Kuhfeld, M.** (2022). A multi-rater latent growth curve model. *Multivariate Behavioral Research*, 57(5), 701-717.
- Kuhfeld, M.** & Soland, J. (2021). The learning curve: Revisiting within-year linear growth assumptions. *Journal of Research on Educational Effectiveness*, 14:1, 143-171.
- Kuhfeld, M.**, Condrón, D., & Downey, D. (2021). When does inequality grow? A seasonal analysis of racial/ethnic disparities in learning in kindergarten through eighth grade. *Educational Researcher*, 50(4), 225-238.
- Ahmed, S., **Kuhfeld, M.**, Watts, T., Davis-Kean, P., & Vandell, D. (2021). Preschool executive function and adult outcomes: A developmental cascade model. *Developmental Psychology*, 57(12), 2234-2249.

- Dallavis, J., **Kuhfeld, M.**, Tarasawa, B., & Ponisciak, S. (2021). Achievement growth in K-8 Catholic schools using NWEA data. *Journal of Catholic Education*, 24(2), 1-19.
- Johnson, A., **Kuhfeld, M.**, & Soland, J. (2021). The forgotten 20 percent: Achievement and growth in rural schools across the nation. *AERA Open*, 7(1), 1–17.
- Condron, D., **Kuhfeld, M.**, & Downey, D. (2021). Schools as refractors: Inequality in academic skills while school is in versus out of session. *Sociology of Education*, 94(4), 316-340.
- Vandell, D., **Kuhfeld, M.**, Gershoff, E., & Crosnoe, R. (2021). 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*, 76, 101309.
- Johnson, A. & **Kuhfeld, M.** (2021). Impacts of school entry age on academic growth through 2nd grade: A multi-state regression discontinuity analysis. *Journal of Research on Educational Effectiveness*, 14(3), 543-569.
- Domingue, B., Kanopka, K., Stenhaus, B., Soland, J., **Kuhfeld, M.**, Wise, S., & Piech, C. (2021). Variation in respondent speed and its implications: Evidence from an adaptive testing scenario. *Journal of Educational Measurement*, 58(3), 335-363.
- Wise, S. & **Kuhfeld, M.** (2021). A method for identifying partial test-taking engagement. *Applied Measurement in Education*, 34(2), 150-161.
- Soland, J., **Kuhfeld, M.**, & Rios, J. (2021). Comparing different response time threshold setting methods to detect low effort on a large-scale assessment. *Journal of Large Scale Assessment*, 9(8), 1-21.
- 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). Re-test to calculate better effort moderated scores. *Journal of Educational Measurement*, 58 (1), 130–149.
- Soland, J. & **Kuhfeld, M.** (2021). Do response styles affect estimates of growth on social-emotional constructs? Evidence from four years of longitudinal survey scores. *Multivariate Behavioral Research*, 56(6), 853-873.
- 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., Pitts, C., & Burchinal, M. (2020). Trends in children’s academic skills at school entry: 2010 to 2017. *Educational Researcher*, 49(6), 403–414.
- 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*, 102(2), 36-39.
- 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

Johnson, A., **Kuhfeld, M.**, & Soland, J. (revise & resubmit). Examining the association between racial disparities in exclusionary discipline practices and academic gains. *JESPAR*

Koeppe, A., Watts, T., Gershoff, E., Ahmed, S., Davis-Kean, P., Duncan, G., **Kuhfeld, M.**, & Vandell, D. (revise & resubmit). Low Self-Control in Childhood Predicts Adult Financial Status, Health, and Criminal Activity: Replication and Extension of Moffitt et al. (2011) Using Cohorts from the U.S. and the U.K. *Developmental Psychology*.

Kuhfeld, M., Soland, J., Register, B., & McEachin, A. (revise & resubmit). Testing an explanation for summer learning loss: Differential examinee effort between spring and fall. *Education Evaluation and Policy Analysis*

Liu, J., **Kuhfeld, M.**, Lee, M., & Song, D. (under review). Noncognitive factors and student long-run success: Comparing the predictive validity of observable academic behaviors and social-emotional skills. *Journal of Research on Educational Effectiveness*.

Morton, E., Thompson, P., & **Kuhfeld, M.** (under review). A multi-state, student-level analysis of the effects of the four-day school week on student achievement and growth. *Education Finance and Policy*

Book Chapters/Reports

Kuhfeld, M. & Lewis, K. (July 2022). Student achievement in 2021-2022: Cause for hope and continued urgency. NWEA Research Report.

Schweig, J., **Kuhfeld, M.**, Diliberti, M., McEachin, A., & Mariano, L. (Jan. 2022). Changes in school composition during the COVID-19 pandemic: Implications for school-average interim test score use. RAND Cooperation.

Lewis, K. & **Kuhfeld, M.** (December 2021). Learning during COVID-19: An update on student achievement and growth at the start of the 2021-22 school year. NWEA Research Report.

Lewis, K., **Kuhfeld, M.**, Ruzek, E., & McEachin, A. (July 2021). Learning during COVID-19: Reading and math achievement in the 2020-21 school year. NWEA Research Report.

Kuhfeld, M., Ruzek, E., Lewis, K., & McEachin, A. (July 2021). Technical Appendix for Learning during COVID-19: Reading and math achievement in the 2020-21 school year. NWEA Research Report.

Kuhfeld, M., Ruzek, E., Soland, J., Lewis, K., Johnson, A., Tarasawa, B., & Dworkin, L. (June 2021). Understanding the initial educational impacts of COVID-19 on communities of color. NWEA Research Report.

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 Research Report.

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

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

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

- June 2021 **Kuhfeld, M.** *International practices in catch-up and recovery.* Invited speaker in the LEARN & Education Lab International Conference.
- 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 (SRCD). 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); Educational Researcher (ER)
- 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)