TIFFANY WU

POSTDOCTORAL FELLOW, CARNEGIE MELLON UNIVERSITY

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EDUCATION

University of Michigan 2021–2026

Ph.D. in Education and Psychology

Thesis: "Showing up is half the battle: How machine learning, psychometrics, and causal inference methods offer distinct yet complementary insights into reducing student absenteeism"

Dissertation Committee: Christina Weiland (chair), Allison Ryan, Ben Hansen, Kevin Stange

University of Michigan 2022–2026

Master of Arts in Statistics (Dual Degree Program)

University of Chicago 2018–2019

Master of Arts in the Social Sciences

Concentration in Psychology

Thesis: "Multiplication is vexation and practice drives me mad: The relationship between math anxiety, retrieval practice, and test performance"

Advisor: Susan Levine

Northwestern University 2011–2015

Bachelor of Science in Secondary Education and History

Summa cum Laude

Illinois Middle School and High School Teaching License:

Professional Educator License (PEL) 2315234

ACADEMIC POSITIONS

Postdoctoral Fellow 2026–present

Carnegie Mellon University, Human-Computer Interaction Institute

PROFESSIONAL EXPERIENCES

2021-2026 **University of Michigan, Early Learning Lab, Ann Arbor, MI**

Graduate Research Assistant, Dr. Christina Weiland

2019-2021 **LEAP Innovations, Personalized Learning Education Technology Non-profit, Chicago, IL**

Research Analyst

2018-2019 **University of Chicago, Cognitive Development Lab, Chicago, IL**

Graduate Research Assistant, Dr. Susan Levine

2015-2017 **Chicago Public Schools, Lindblom Math & Science Academy, Englewood, Chicago, IL**

High School Social Sciences Teacher

2011-2015 **Northwestern University, Institute for Policy Research, Evanston, IL**
Research Assistant, Dr. Lindsay Chase-Lansdale

FELLOWSHIPS AND AWARDS

2025	William C. Morse Fellowship, University of Michigan ($995)
2024	Sarri Family Fellowship for Research on Educational Attainment of Children in Low Income Families, Institute for Social Research (ISR), University of Michigan ($6,000)
2024	Dr. Stuart A. Karabenick Fellowship, University of Michigan ($1,000)
2023-2025	Rackham Conference Travel Grant, University of Michigan ($900 each year)
2022-2026	IES Causal Inference in Education Policy Research Predoctoral Fellowship (4 years of support for doctoral studies; ≈ $146,000)
2022	Association for Public Policy Analysis and Management (APPAM) Equity and Inclusion Student Fellowship ($600)
2022	Institute for Social Research (ISR)-Rackham Summer Training Award, University of Michigan ($3,800)
2021	Rackham Regents Fellowship, University of Michigan (1 year of support for doctoral studies; $32,691)
2019	Dean's Scholarship, University of Chicago ($5,250)
2019	Master of Arts in the Social Sciences Scholarship, University of Chicago ($28,998)
2015	Highest Undergraduate GPA Award, School of Education and Social Policy, Northwestern University
2013-2015	Ralph Robinson Scholarship ($5,000), Northwestern University
2012	New Cosmic Frontiers Astronomy & Physics International Essay Competition Third Place, University of Chicago ($10,000)

GRANTS

Awarded

2022, 2023 *Collaborative Partnership with Local Michigan Schools to Promote Interest in STEM*
DEI Faculty Grant, Industrial and Operations Engineering, University of Michigan
PIs: Salar Fattahi (PI), **Tiffany Wu** (co-PI)
Total award amount: $10,000
Media coverage link here

PUBLICATIONS

Peer-Reviewed Journal Articles (published or in press)

Wu, T. & Weiland, C. (2026). Leveraging modern machine learning to improve early warning systems and reduce chronic absenteeism in early childhood. *Educational Evaluation and Policy Analysis,* 1-26. [link here]

Yerington, E., Weiland, C., **Wu, T.,** McCormick, M., Hsueh, J., Sachs, J., Snow, C., Guerrero-Rosada, P., & Xia, Y. (2026). Teacher-student racial-ethnic match and kindergarteners' academic and cognitive gains: Evidence from Boston. *Early Childhood Research Quarterly, 76*(3), 287-300. [link here]

McCormick, M., Hanno, E., Weiland, C., **Wu, T.,** Pralica, M., Hsueh, J., Giles, A., Snow, C., & Sachs, J. (2025). Moving beyond point in time estimates: Using growth models to understand when PreK convergence happens, how, and for which skills. *Child Development, 96*(4), 1354-1372. [link here]

Wu, T., Weiland, C., McCormick, M., C., Hsueh, J., Snow, C., & Sachs, J. (2024). One score to rule them all: Comparing the predictive and concurrent validity of 30 ways to score the Hearts and Flowers task. *Assessment, 31*(8), 1-19. [link here]

Papers Under Review

Weiland, C., **Wu, T.,** Unterman, R., Shapiro, A., Lightner, S., Staines, T., & Taylor, A. (2025). *Impacts of Oversubscribed Boston Pre-K Programs through Middle School.* Revise and resubmit, *Child Development.* (EdWorkingPaper No. 25-1194. Annenberg Institute for School Reform at Brown University.) [link here]

Wu, T., Weiland, C., Diemer, M., Unterman, R., Shapiro, A., & Staines, T. (2025). *Measuring "Noncognitive" Skills at Scale: Building Longitudinal Student Behavior Composites Using Administrative Data.* Under review. (EdWorkingPaper No. 25-1250. Annenberg Institute for School Reform at Brown University.) [link here]

Wu, T., Weiland, C., & Staines, T. (2026). *The Chronic(les) of Absenteeism Measurement: Unpacking the Many Measures of Attendance and Evidence for a Lower Chronic Absenteeism Threshold.* Under review. (EdWorkingPaper No. 26-1380. Annenberg Institute for School Reform at Brown University.) [link here]
- *Education Week* Media Coverage
- *Fordham Institute* Media Coverage

Policy Briefs & White Papers

Lein, L., Borah, A., Burzo, Z., Eglash, R., Khoshlessan, M., Jin, Z., Mahalingam, R., Nwatu, J., Patel, M., Vega Hidalgo, A., **Wu, T.,** & Mihalcea, R. (2025). *How AI can be used to contribute to poverty alleviation without deepening inequality.* University of Michigan AI Laboratory. *(Authors listed alphabetically after first and last authors.)* [link here]

Wu, T., McCormick, M., Weiland, C., Hsueh, J., Sachs, J., & Snow, C. (2023). *What Sustains the Pre-K Boost? New Evidence from Boston Public Schools.* Boston Early Childhood Research Practice Partnership. [link here]

Weiland, C., McCormick, M., **Wu, T.**, MacDowell, C., Guerrero-Rosada, P., Taylor, A., Snow, C., & Sachs, J. (2023). *Professional Development in the Time of COVID-19: Evidence and Insights from Early Educators in the Boston Public Schools.* Boston Early Childhood Research Practice Partnership. [link here]

Wu, T., Weiland, C., McCormick, M., Sachs, J., Taylor, A., Hsueh, J., & Snow, C. (2023). *What if You Miss the First Year of an Aligned Curriculum? Boston Public Schools' Pre-K Non-Attenders Made Equivalent Learning Gains Whether or Not their Kindergarten Program was Aligned with Pre-K.* Boston Early Childhood Research Practice Partnership. [link here]

Works in Progress

Wu, T. *Fair Warning? Fairness, Uncertainty, Computational Cost, and Human-in-the-Loop Design in Educational Early Warning Systems.*

Wu, T., & Weiland, C. *The Garden of Forking Attendance Measures: How Different Attendance Metrics Shape Prekindergarten Impact Evaluations.*

Wu, T., Unterman, R., & Weiland, C. *Quantifying and Predicting Variation in the Long-Term Effects of Oversubscribed Prekindergarten Programs.*

Wu, T. *Transportation Inequality and Chronic Absenteeism: Evidence from Urban Districts.*

CONFERENCE ACTIVITY

Presentations

Wu, T., Weiland, C., & Staines, T. (2026, March). *The Chronic(les) of Absenteeism Measurement: Unpacking the Many Measures of Attendance and Evidence for a Lower Chronic Absenteeism Threshold.* Association for Education Finance and Policy (AEFP). Chicago, IL.

Weiland, C., **Wu, T.,** Unterman, R., Shapiro, A., Lightner, S., Staines, T., & Taylor, A. (2026, March). *Impacts of Oversubscribed Boston Pre-K Programs through Middle School.* Association for Education Finance and Policy (AEFP). Chicago, IL.

Wu, T., Weiland, C., & Staines, T. (2026, February). *The Chronic(les) of Absenteeism Measurement: Unpacking the Many Measures of Attendance and Evidence for a Lower Chronic Absenteeism Threshold.* Educational Opportunity Conference. Stanford University, Stanford, CA.

Weiland, C., **Wu, T.,** Unterman, R., Shapiro, A., Lightner, S., Staines, T., & Taylor, A. (2025, May). *Impacts of Oversubscribed Boston Pre-K Programs through Middle School.* Causal Inference in Education Research Seminar, Ann Arbor, MI.

Wu, T. & Weiland, C. (2025, May). *Leveraging Modern Machine Learning to Improve Early Warning Systems and Reduce Chronic Absenteeism in Early Childhood.* Supporting Students in their Earliest Years: Innovations at the State and Local Levels. Harvard University Strategic Data Project Convening, Boston, MA.

Yerington, E., Weiland, C., **Wu, T.,** McCormick, M., Hsueh, J., Sachs, J., Snow, C., Guerrero-Rosada, P., & Xia, Y. (2025, May). *Teacher-Student Racial-Ethnic Match and Kindergarteners' Academic and Cognitive Gains: Evidence from Boston.* Society for Research in Child Development (SRCD), Minneapolis, MN.

Wu, T. (2025, February). *Leveraging Modern Machine Learning to Improve Early Warning Systems and Reduce Chronic Absenteeism in Early Childhood.* Combined Program in Education and Psychology Brown Bag, Ann Arbor, MI.

Wu, T. & Weiland, C. (2024, September). *Leveraging Modern Machine Learning to Reduce Chronic Absenteeism in Early Childhood.* Society for Research on Educational Effectiveness (SREE), Baltimore, MD.

Wu, T., Weiland, C., Unterman, R., Shapiro, A. (2023, November). *Prekindergarten Absenteeism in Boston Public Schools: Predictors, Patterns, and Relationships to Learning Outcomes.* Association for Public Policy Analysis & Management (APPAM), Atlanta, GA.

Wu, T. & Weiland, C. (2023, August). *SMOTE, XGBoost, Action! Leveraging Machine Learning for Improving Chronic Absenteeism Prediction in Early Childhood.* Causal Inference in Education Research Seminar, Ann Arbor, MI.

Wu, T. (2019, June). *Multiplication is Vexation and Practice Drives Me Mad: Retrieval Practice Accuracy Mediates the Effect of Math Anxiety on Test Performance.* The University of Chicago MAPSS Conference, Chicago, IL.

Posters

Wu, T. & Weiland, C. (2025, November). *Leveraging Modern Machine Learning to Improve Early Warning Systems and Reduce Chronic Absenteeism in Early Childhood.* MIDAS Annual Data Science & AI Summit, University of Michigan, Ann Arbor, MI.
- ***MIDAS Award for High-Impact Application***

Wu, T., Weiland, C., McCormick, M., Hsueh, J., Snow, C., & Sachs, J. (2023, May*). One Score to Rule Them All? Comparing the Predictive and Concurrent Validity of 30 Ways to Score the Hearts and Flowers Task.* HighScope International Conference, Ypsilanti, MI.

Wu, T., Weiland, C., McCormick, M., Hsueh, J., Snow, C., & Sachs, J. (2023, May). *One Score to Rule Them All? Comparing the Predictive and Concurrent Validity of 30 Ways to Score the Hearts and Flowers Task.* American Educational Research Association (AERA), Chicago, IL.

Wu, T., Weiland, C., McCormick, M., Hsueh, J., Snow, C., & Sachs, J. (2023, March). *One Score to Rule Them All? Comparing the Predictive and Concurrent Validity of 30 Ways to Score the Hearts and Flowers Task.* The Susan B. Meister Lecture in Child Health Policy, University of Michigan Child Health Evaluation and Research Center, Ann Arbor, MI.

Jenifer, J. & **Wu, T.** (2019, May). *Math Anxiety & Retrieval Practice: A Potential Strategy for Reducing Performance Gaps.* Association for Psychological Science (APS) 31st Annual Convention. Washington, D.C.

Sommer, T.E., Chase-Lansdale, L., Sabol, T.J., Yoshikawa, H., Brooks-Gunn, J., **Wu, T.** (2014, June). *Barrier or Opportunity to Promote Parental Employment?: Early Childhood Education Programs for Low-Income Children.* Work and Family Researchers Network Conference. New York City, NY.

INVITED TALKS & GUEST LECTURES

Wu, T. (2026, April 16). *Is 10% too late? New research on chronic absenteeism measurement* [Webinar]. EveryDay Labs. [link here]

Wu, T. (2026, March 25). *Rethinking the 10% absence benchmark: New attendance research and what districts can do* [Webinar]. District Administration & HopSkipDrive. [link here]

Wu, T. (2025, February). *Leveraging Machine Learning to Improve Chronic Absenteeism Prediction in Early Childhood.* Guest Lecture in IOE 473: Advanced Data Analytics. University of Michigan, Ann Arbor, MI.

Wu, T. (2024, October). *Regression Discontinuity and the Effectiveness of Early Warning Systems*. Guest Lecture in PUBPOL 712: Causal Inference in Education Policy Research. University of Michigan, Ann Arbor, MI.

MEDIA COVERAGE

WV native creates online state school closure tracker; 70% of closures impacted elementary schools by Amelia Ferrell Knisely, *West Virginia Watch,* June 4, 2026.

Coalition asks state leaders to immediately pause WV school closures as lawmakers mull funding fix by Amelia Ferrell Knisely, *West Virginia Watch,* June 1, 2026.

Absenteeism may hurt academics long before it becomes "chronic" by Evie Blad, *Education Week,* January 21, 2026.

Does missing school harm students even when they aren't "chronically absent"? by Jeff Murray, *Thomas B. Fordham Institute,* February 17, 2026.

TEACHING EXPERIENCE

Graduate Student Instructor

Fall 2024 **University of Michigan, Ann Arbor, MI**
Psychometric Theory: Classical and Latent Trait Models (EDUC 707/PSYCH 803)
Teaching Assistant with Dr. Matthew Diemer

Summer 2024 **University of Michigan, Ann Arbor, MI**
Latent Variable Modeling to Advance Diversity, Equity, and Inclusion
International Consortium for Political and Social Research (ICPSR) Summer Program
Teaching Assistant with Dr. Matthew Diemer

K-12 Teaching Experience

2015-2017 **Chicago Public Schools, Lindblom Math & Science Academy (Title 1 School), Englewood, Chicago, IL**
High School Social Sciences Teacher

2012-2015 **Northwestern University Center for Talent Development, Evanston, IL**
Teaching Assistant & Residential Teaching Assistant

PAID CONSULTANCIES

2023 **Johnson County Cabinet for Children and Youth, Vienna, IL**
Education Research Consultant

REFEREE SERVICE

2024-Present **Ad Hoc Reviewer**
AERA Open, Assessment

ACADEMIC SERVICE

Service to the University of Michigan

2024-2025 Coordinator, Causal Inference in Education Research Seminar (CIERS), Education Policy Initiative

2024-2025 Admissions Committee Member, Combined Program in Education and Psychology

2023-2024 Curriculum Committee Member, Combined Program in Education and Psychology

2022-2023 Social Committee Member, Combined Program in Education and Psychology

2022-2023 Executive Committee Member, Combined Program in Education and Psychology

2021-2022 Recruitment Committee Member, Combined Program in Education and Psychology

AFFILIATIONS

2025- Association for Education Finance & Policy (AEFP)

2024- Society for Research on Educational Effectiveness (SREE)

2022- Association for Public Policy Analysis & Management (APPAM)

2021- American Educational Research Association (AERA)

PROGRAMMING & STATISTICAL SOFTWARE

Extensive experience with R, Python, Stata, and SQL.
Additional experience with SPSS, MPlus, and web development tools (HTML, CSS, Javascript).