JONATHAN WAI

Associate Professor of Education Policy and Psychology
21st Century Endowed Chair in Education Policy
Department of Education Reform
College of Education and Health Professions
Courtesy Appointment, Department of Psychology
University of Arkansas
Affiliate Faculty, University of Alabama
jwai@uark.edu; April 12, 2024

EDUCATION AND EMPLOYMENT

2023-	Associate Professor, Dept. of Education Reform, **University of Arkansas**
2018-	21st Century Endowed Chair in Education Policy, **University of Arkansas**
2018-	Joint (Courtesy) Appointment, Dept. of Psychology, **University of Arkansas**
2022-	Affiliate Faculty, Dept. of Educational Studies, **University of Alabama**
2018-2023	Assistant Professor, Dept. of Education Reform, **University of Arkansas**
2017-2018	Research Fellow, Autism & Developmental Medicine Institute, **Geisinger**
2013-2018	Visiting Researcher, Dept. of Psychology, **Case Western Reserve University**
2016-2017	Faculty Affiliate, Berger Institute, **Claremont McKenna College**
2011-2017	Research Scientist, Talent Identification Program, **Duke University**
2009-2011	Von Brock Postdoctoral Research Fellow, **Duke University**
2003-2009	Ph.D., M.S., Quantitative Methods for Psychology, **Vanderbilt University**
2002-2003	M.A., Cognitive Psychology and Evaluation, **Claremont Graduate University**
1998-2002	B.A., Psychology and Mathematics, **Claremont McKenna College**

HONORS AND AWARDS

Fellow, Association for Psychological Science (APS), 2024
Top 2% Cited Scientist in 2019 through 2022 in Education and Psychology, Stanford University, 2023
Education Week Education-Scholar Public Influence Ranking Top 200 (#3 junior scholar), 2023
International Mensa Education and Research Foundation Awards for Research Excellence, 2006, 2010, 2011, 2012, 2013 (x2), 2016, 2018, 2019, 2023 (x3)
Impactful Scholarship Award, COEHP, University of Arkansas, 2023
Arkansas Senate Resolution 23, Recognizing Achievements of Dept. of Education Reform, 2022
Rising STAR Award, COEHP, University of Arkansas, 2021
National Public Radio, Diverse Sources Database, Education and Social Sciences, 2021
American Educational Research Association (AERA) Michael Pyryt Collaboration Award, 2020
Mexican National Award on Giftedness (Mexican Federation of Giftedness), 2018
Reviewer of the Year, *Gifted Child Quarterly*, 2018
Research and writing profiled by Rotman Management Magazine, University of Toronto, 2015
Von Brock Postdoctoral Research Fellow, Duke University, 2009-2011
Susan Gray Award for Excellence in Scholarly Writing, Vanderbilt University, 2010
New Voice Scholar in Creativity and Intelligence (Chosen by Field Leaders), University of Kansas, 2009
Society of Multivariate Experimental Psychology (SMEP) Dissertation Award, 2007
Peabody Honor Scholar, 2003-2007
Vanderbilt University Graduate Fellow, 2003-2007
Uhlmann Scholar, Merit Scholarship, Claremont McKenna College, 1998-2002
Washington Scholar, Waived Tuition, Western Washington University Summer Courses, 1998-2002

PROFESSIONAL MEMBERSHIP AND BOARD SERVICE

AERA (SIG: Giftedness, Creativity, and Talent; Division L: Educational Policy and Politics)
American Psychological Association (APA Division 15: Educational Psychology)
Arkansans for Gifted and Talented Education (AGATE)
Association for Psychological Science (APS)
Association for Public Policy, Analysis, & Management (APPAM)
Association for Interdisciplinary Meta-research and Open Science (AIMOS)
CERN, American Enterprise Institute (AEI)
International Society for Intelligence Research (ISIR)
National Association for Gifted Children (NAGC; Research and Evaluation and STEM Networks)
Society for Open Inquiry in Behavioral Science (SOIBS)
National Association of Science Writers (NASW)
Advisory Board, Virtual Center for Advanced Potential (VCAP), Schmidt Futures, 2022-present
Research Advisory Board, College Board Admission Research Consortium, 2021-present
Chair, Education Working Group, APS Global Collaboration on COVID-19, 2021-present
Advanced Education Working Group, Thomas B. Fordham Institute, 2022-present
Board of Directors, Chair, Evaluation/Nomination Committees, MATHCOUNTS Foundation, 2011-2014

FUNDING

External

Schmidt Futures. "A Multidisciplinary Exploration and Synthesis of Talent Research." 2022-2024, $100,000.

Individual Donor. "Career Trajectories of Intellectually Talented Youths from the Mid-1990s to the Present." 2022-2023, Co-Investigator Jeff M. Allen, $30,000.

Institute of Education Sciences Measurement/NCER-STEM. "Validity Evidence on the Spatial Ability Assessment for STEM Instruction and Evaluation." 2021-2025, Co-Investigators (Joni M. Lakin, David Uttal, Stefanie A. Wind, Kaiwen Man), $1,646,583.

Educational Testing Service. "Historical Trend Analysis of GRE Scores by Test Taker Characteristics, Test Taking Frequency, and Tilt or Score Patterns." 2021-2022, Co-Investigators (Matthew H. Lee, Harrison J. Kell), $10,000.

Walton Family Foundation. "Making the Case for Universal Screening in Gifted Identification in Arkansas." 2019-2021, Co-Investigators (Dustin Seaton, Sarah McKenzie), $179,482.

American Psychological Foundation Esther Katz Rosen Research Fund. "Finding the Missing Einstein's: Expanding the Breadth and Depth of Gifted Identification" 2019, Co-Investigator Joni M. Lakin, $30,000.

Society for Multivariate Experimental Psychology (SMEP) Dissertation Research Award. 2007, $1,000.

Internal

COEHP, WE CARE Field Advancement Funds, University of Arkansas. "Testing Bayesian Measurement Invariance with Unbalanced Groups: Method Advancement and Application in Gifted Education." 2023-2024, Co-Investigators (Xinya Liang, Ejike Edeh, Chunhua Cao), $14,000.

COEHP, WE CARE Field Advancement Funds, University of Arkansas. "Exploring the Links Between Spatial Reasoning and Vocational or 'Middle-Skill Jobs' Using a Machine Learning Approach." 2023-2024, Co-Investigators (Xinya Liang, Jiaying Chen, Joni M. Lakin), $2,500.

Office for Education Policy, University of Arkansas. "Swimming Against the Current: ELL's Postsecondary Aspirations and Barriers to Higher Education." 2023-2024, Co-Investigators (Rian R. Djita, Andy Parra-Martinez, Kate Barnes, Sarah McKenzie), $5,000.

PUBLICATIONS

Google Scholar Citations (as of 4/12/2024): 5,506, h-index = 28, i10-index = 41

JOURNAL ARTICLES

J58 **Wai, J.**, & Lakin, J. M. (2024). The importance of identifying spatial skills in talented students. *Gifted Child Today*.

J57 Lakin, J. M., **Wai, J.**, Olszewski-Kubilius, P., Corwith, S. R., Rothschild, D., & Uttal, D. H. (2024). Spatial thinking across the curriculum: Fruitfully combining research and practice. *Gifted Child Today*.

J56 **Wai, J.**, Kell, H. J., & Worrell, F. C. (2023). Method considerations for school psychology from longitudinal research on gifted students. *Journal of School Psychology*.

J55 Parra-Martinez, F. A., & **Wai, J.** (2023). Talent identification research: A bibliometric study from multidisciplinary and global perspectives. *Frontiers in Psychology: Performance Science, 14,* 1141159. https://doi.org/10.3389/fpsyg.2023.1141159

J54 **Wai, J.**, & Liang, X. (2023). Some knowns and unknowns about developing cognitive excellence: History, methods, policy, and politics. *Journal for the Education of the Gifted*. https://doi.org/10.1177/01623532231180888

J53 Lee, M. H., & **Wai, J.** (2023). Initial vs. retest GRE performance: A study of one million Graduate Record Examination test-retest observations. *Personality and Individual Differences, 207,* 112180. https://doi.org/10.1016/j.paid.2023.112180

J52 Parra-Martinez, F. A., Desmet, O. A., & **Wai, J.** (2023). The evolution of intelligence: Bibliometric analysis of Journal of Intelligence and Intelligence. *Journal of Intelligence, 11*(2), 35. https://doi.org/10.3390/jintelligence11020035

J51 **Wai, J.**, Lee, M. H., & Kell, H. J. (2022). Distributions of academic math-verbal tilt and overall academic skill of students specializing in different fields: A study of 1.6 million Graduate Record Examination test takers. *Intelligence, 95,* 101701. https://doi.org/10.1016/j.intell.2022.101701

J50 **Wai, J.**, & Guilbault, K. (2022). Multidisciplinary perspectives and field strengthening questions for gifted education research. *High Ability Studies, 34*(1), 39-59. https://doi.org/10.1080/13598139.2022.2064269

J49 **Wai, J.**, Lakin, J. M., & Kell, H. J. (2022). Specific cognitive aptitudes and gifted samples. *Intelligence, 92,* 101650. https://doi.org/10.1016/j.intell.2022.101650

J48 **Wai, J.**, & Tran, B. (2022). Student characteristics, institutional factors, and outcomes in higher education and beyond: An analysis of standardized test scores and other factors at the institutional level with school rankings and salary. *Journal of Intelligence, 10*(2), 22. https://doi.org/10.3390/jintelligence10020022

J47 Tran, B., **Wai, J.**, McKenzie, S. C., Mills, J. N., & Seaton, D. (2022). Expanding gifted identification to capture academically advanced, low income, or other disadvantaged students:

The case of Arkansas. *Journal for the Education of the Gifted, 45*(1), 64-83. https://doi.org/10.1177/01623532211063936

J46 **Wai, J.**, Bardach, L., & Tran, B. (2022). What longitudinal research and large-scale population representative studies can tell us about gifted students and education policy 50 years after the Marland Report. *Journal for the Education of the Gifted, 45*(1), 46-63. https://doi.org/10.1177/01623532211063942

J45 **Wai, J.**, & Brown, M. I. (2021). Developmental histories facilitating the emergence of creative scientific expertise: The role of developed cognitive talents, education, and social and cultural contexts. *Frontiers in Psychology: Developmental*. 10.3389/fpsyg.2021.716529

J44 Lakin, J. M., & **Wai, J.** (2021). Developing student aptitudes as an important goal of education. *Gifted Child Quarterly, 66*(2), 95-97. https://doi.org/10.1177/00169862211039543

J43 Zhang, D. C., & **Wai, J.** (2021). Malleability of statistical perception: Impact of validity presentation on college admission test policy preferences. *Collabra: Psychology, 7*(1), 24087. https://doi.org/10.1525/collabra.24087

J42 **Wai, J.**, & Lovett, B. J. (2021). Improving gifted talent development can help solve multiple consequential real-world problems. *Journal of Intelligence, 9*(2), 31. https://doi.org/10.3390/jintelligence9020031

J41 Lewis, N. A., Jr., & **Wai, J.** (2021). Communicating what we know, and what isn't so: Science communication in psychology. *Perspectives on Psychological Science, 16*(6), 1242-1254. https://doi.org/10.1177/1745691620964062

J40 Brown, M. I., **Wai, J.**, & Chabris, C. F. (2021). Can you ever be too smart for your own good? Comparing linear and nonlinear effects of cognitive ability on life outcomes. *Perspectives on Psychological Science, 16*(6), 1337-1359. https://doi.org/10.1177/1745691620964122

J39 **Wai, J.**, & Worrell, F. C. (2021). The future of intelligence research and gifted education. *Intelligence*. https://doi.org/10.1016/j.intell.2021.101546

J38 **Wai, J.**, & Worrell, F. C. (2020). How talented low-income kids are left behind. *Phi Delta Kappan, 102*(4), 26-29. https://doi.org/10.1177/0031721720978058

J37 Lakin, J. M., & **Wai, J.** (2020). Making space for spatial talent. *Phi Delta Kappan, 102*(4), 36-39. https://doi.org/10.1177/0031721720978061

J36 **Wai, J.** (2020). Communicating intelligence research. *Journal of Intelligence, 84*(4), 40. https://doi.org/10.3390/jintelligence8040040

J35 **Wai, J.**, & Lakin, J. M. (2020). Finding the missing Einsteins: Expanding the breath of cognitive and noncognitive measures used in academic services. *Contemporary Educational Psychology, 63,* 101920. https://doi.org/10.1016/j.cedpsych.2020.101920

J34 Lakin, J. M., & **Wai, J.** (2020). Spatially gifted, academically inconvenienced: Spatially talented students experience less academic engagement and more behavioral issues than other talented students. *British Journal of Educational Psychology, 90*(4), 1015-1038. https://doi.org/10.1111/bjep.12343

J33 Maranto, R., & **Wai, J.** (2020). Why intelligence is missing from American education policy and practice, and what can be done about it. *Journal of Intelligence, 8,* 2. https://doi.org/10.3390/jintelligence8010002

J32 Asbury, K., & **Wai, J.** (2020). Viewing education policy through a genetic lens. *Journal of School Choice, 14,* 301-315. https://doi.org/10.1080/15582159.2019.1705008

J31 Kell, H. J., & **Wai, J.** (2019). Right-tail range restriction: A lurking threat to detecting associations between traits and skill among experts. *Journal of Expertise, 2,* 224-242. https://www.journalofexpertise.org/articles/volume2_issue4/JoE_2_4_Kell&Wai.html

J30 **Wai, J.**, & Allen, J. (2019). What boosts talent development? Examining predictors of academic growth in secondary school among academically advanced youth across 21 years. *Gifted Child Quarterly, 63,* 253-272. https://doi.org/10.1177/0016986219869042

J29 **Wai, J.**, Makel, M. C., & Gambrell, J. (2019). An opportunity to reflect on the relationship between elite education, inferred cognitive ability, and the development of eminent creative expertise. *Journal of Expertise, 2,* 145-147. https://www.journalofexpertise.org/articles/volume2_issue2/JoE_2019_2_2_Wai_Reply.pdf

J28 **Wai, J.**, Makel, M. C., & Gambrell, J. (2019). The role of elite education and inferred cognitive ability in eminent creative expertise: An historical analysis of the TIME 100. *Journal of Expertise, 2,* 77-85. https://www.journalofexpertise.org/articles/volume2_issue2/JoE_2019_2_2_Wai.pdf

J27 Kanaya, T., **Wai, J.**, & Miranda, B. (2019). Exploring the links between receiving special education services and adulthood outcomes. *Frontiers in Education: Special Educational Needs, 4,* 56. https://doi.org/10.3389/feduc.2019.00056

J26 **Wai, J.**, & Kanaya, T. (2019). Wealth generation as a form of expertise: An examination from 2002-2016 of elite education, cognitive ability, and the gender gap among billionaires. *Journal of Expertise, 2,* 59-76. https://www.journalofexpertise.org/articles/volume2_issue1/JoE_2019_2_1_Wai_Kanaya.html

J25 **Wai. J.**, Brown, M. I., & Chabris, C. F. (2018). Using standardized test scores to include general cognitive ability in education research and policy. *Journal of Intelligence, 6,* 37. https://doi.org/10.3390/jintelligence6030037

J24 **Wai, J.**, & Halpern, D. F. (2018). The impact of changing norms on creativity in psychological science. *Perspectives on Psychological Science, 13,* 466-472. 10.1177/1745691618773326

J23 **Wai, J.**, & Perina, K. (2018). Expertise in journalism: Factors shaping a cognitive and culturally elite profession. *Journal of Expertise, 1,* 57-78. https://www.journalofexpertise.org/articles/volume1_issue1/JoE_2018_1_1_Wai_Perina.html

J22 **Wai, J.**, Hodges, J., & Makel, M. C. (2018). Sex differences in ability tilt in the right tail of cognitive abilities: A 35-year examination. *Intelligence, 67,* 76-83. https://doi.org/10.1016/j.intell.2018.02.003

J21 **Wai, J.**, & Rindermann, H. R. (2017). What goes into high educational and occupational achievement? Education, brains, hard work, networks, and other factors. *High Ability Studies, 28,* 127-145. http://dx.doi.org/10.1080/13598139.2017.1302874

J20 Makel, M. C., **Wai, J.**, Peairs, K. F., & Putallaz, M. (2016). Sex differences in the right tail of cognitive abilities: An update and cross cultural extension. *Intelligence, 59,* 8-15. http://dx.doi.org/10.1016/j.intell.2016.09.003

J19 **Wai, J.**, & Worrell, F. C. (2016). Helping disadvantaged and spatially talented students fulfill their potential: Related and neglected national resources. *Policy Insights from the Behavioral and Brain Sciences, 3,* 122-128. http://dx.doi.org/10.1177/2372732215621310

J18 **Wai, J.**, & Lincoln, D. (2016). Investigating the right tail of wealth: Education, cognitive ability, giving, network power, gender, ethnicity, leadership, and other characteristics. *Intelligence, 54,* 1-32. http://dx.doi.org/10.1016/j.intell.2015.11.002

J17 Makel, M. C., & **Wai, J.** (2016). Does economic research in education work? For which studies? *Journal of Advanced Academics, 27,* 73-80. https://doi.org/10.1177/1932202X15628013

J16 **Wai, J.**, & Rindermann, H. R. (2015). The path and performance of a company leader: An historical examination of the education and cognitive ability of Fortune 500 CEOs. *Intelligence, 53,* 102-107. http://dx.doi.org/10.1016/j.intell.2015.10.001

J15 Makel, M. C., **Wai, J.**, Putallaz, M., & Malone, P. (2015). The academic gap: An international comparison of the time allocation of academically talented students. *Gifted Child Quarterly, 59,* 177-189. http://dx.doi.org/10.1177/0016986215578746

J14 Miller, D., & **Wai, J.** (2015). The bachelor's to PhD STEM pipeline no longer leaks more women than men: A 30-year analysis. *Frontiers in Psychology: Developmental, 6,* 37. http://dx.doi.org/10.3389/fpsyg.2015.00037

J13 **Wai, J.** (2014). Investigating the world's rich and powerful: Education, cognitive ability, and sex differences. *Intelligence, 46,* 54-72. http://dx.doi.org/10.1016/j.intell.2014.05.002

J12 **Wai, J.** (2014). What does it mean to be an expert? *Intelligence, 45,* 122-123. http://dx.doi.org/10.1016/j.intell.2014.02.001

J11 **Wai, J.** (2014). Experts are born, then made: Combining prospective and retrospective longitudinal data shows that cognitive ability matters. *Intelligence, 45*, 74-80. http://dx.doi.org/10.1016/j.intell.2013.08.009

J10 **Wai, J.** (2013). Investigating America's elite: Cognitive ability, education, and sex differences. *Intelligence, 41*, 203-211. http://dx.doi.org/10.1016/j.intell.2013.08.009

J9 **Wai, J.**, Putallaz, M., & Makel, M. C. (2012). Studying intellectual outliers: Are there sex differences, and are the smart getting smarter? *Current Directions in Psychological Science, 21*, 382-390. http://dx.doi.org/10.1177/0963721412455052

J8 Makel, M. C., Putallaz, M., & **Wai, J.** (2012). Teach students what they don't know but are ready to learn: A commentary on "Rethinking giftedness and gifted education." *Gifted Child Quarterly, 56*, 198-201. https://doi.org/10.1177/0016986212456073

J7 **Wai, J.**, & Putallaz, M. (2011). The Flynn effect puzzle: A 30-year examination from the right tail of the ability distribution provides some missing pieces. *Intelligence, 39*, 443-455. http://dx.doi.org/10.1016/j.intell.2011.07.006

J6 Makel, M. C., Li, Y., Putallaz, M., & **Wai, J.** (2011). High ability students' time spent outside the classroom. *Journal of Advanced Academics, 22*, 720-749. http://dx.doi.org/10.1177/1932202X11424880

J5 **Wai, J.,** Cacchio, M., Putallaz, M., & Makel, M. C. (2010). Sex differences in the right tail of cognitive abilities: A 30-year examination. *Intelligence, 38*, 412-423. http://dx.doi.org/10.1016/j.intell.2010.04.006

J4 **Wai, J.,** Lubinski, D., Benbow, C. P., & Steiger, J. H. (2010). Accomplishment in science technology, engineering, and mathematics (STEM) and its relation to STEM educational dose: A 25-year longitudinal study. *Journal of Educational Psychology, 102*, 860-871. http://dx.doi.org/10.1037/a0019454

J3 **Wai, J.,** Lubinski, D., & Benbow, C. P. (2009). Spatial ability for STEM domains: Aligning over fifty years of cumulative psychological knowledge solidifies its importance. Journal of Educational Psychology, 101, 817-835. http://dx.doi.org/10.1037/a0016127

J2 Halpern, D. F., & **Wai, J.** (2007). The world of competitive Scrabble: Novice and expert differences in visuospatial and verbal abilities. *Journal of Experimental Psychology: Applied, 13*, 79-94. http://dx.doi.org/10.1037/1076-898X.13.2.79

J1 **Wai, J.**, Lubinski, D., & Benbow, C. P. (2005). Creativity and occupational accomplishments among intellectually precocious youths: An age 13 to age 33 longitudinal study. *Journal of Educational Psychology, 97*, 484-492. http://dx.doi.org/10.1037/0022-0663.97.3.484

BOOK CHAPTERS

B16 **Wai, J.**, & Worrell, F. C. (in press). How intelligence tests can be used to predict education and can be assessed through education. In G. L. Canivez (Ed.), *Assessing psychometric fitness of intelligence tests: Toward empirically supported (evidence based) interpretation practices*.

B15 **Wai, J.**, & Zhang, D. C. (2023). Careers and the gifted: Implications for society and education policy. In B. Walsh, L. Flores, P. Hartung, F. Leong, & M. Savickas (Eds.), *Career psychology*. American Psychological Association.

B14 Woessner, M., Maranto, R., Redding, R. E., & **Wai, J.** (2023). Might psychology's ideology affect undergraduates? In C. Frisby, W. T. O'Donohue, R. E. Redding, & S. O. Lilienfeld (Eds.), *Political Bias in Psychology*. Springer.

B13 **Wai, J.** (2022). "Luck and mentorship": Brief reflections of a Chinese American in higher education. In N. D. Hartlep, D. Ball, & K. E. Wells (Eds.), *Asian/American scholars of education: 21st century pedagogies, perspectives, and experiences* (2nd Ed.). Peter Lang.

B12 **Wai, J.**, & Bailey, D. H. (2021). How intelligence research can inform education and public policy. In A. K. Barbey, S. Karama, & R. J. Haier (Eds.), *The Cambridge handbook of intelligence and cognitive neuroscience* (pp. 434-447). Cambridge University Press. https://doi.org/10.1017/9781108635462.028

B11 Kanaya, T., **Wai, J.**, & Worrell, F. C. (2021). The "Flynn Effect" and decision making in education: Addressing fairness concerns. In J. L. Jonson & K. F. Geisinger (Eds.), *Fairness in educational and psychological testing: Examining theoretical, research, practice, and policy implications of 2014 Standards*. American Educational Research Association.

B10 **Wai, J.**, & Benbow, C. P. (2021). Educational interventions on behalf of the gifted: Do they have lasting links with development? In J. Van Tassel-Baska (Ed.), *Talent development in gifted education: Theory, research, and practice* (pp. 115-130). Routledge.

B9 Halpern, D. F., & **Wai, J.** (2020). Sex differences in intelligence. In R. J. Sternberg (Ed.), *The Cambridge Handbook of Intelligence* (pp. 317-345). Cambridge University Press. https://doi.org/10.1017/9781108770422.015

B8 Antonakis, J., Simonton, D. K., & **Wai, J.** (2019). Intelligence and leadership. In M. D. Mumford & C. A. Higgs (Eds.), *Leader thinking skills: Capacities for 21st century leadership* (pp. 14-45). Taylor & Francis. 10.4324/9781315269573-2

B7 **Wai, J.**, Worrell, F. C., & Chabris, C. F. (2018). The consistent influence of general cognitive ability in college, career, and lifetime achievement. In K. McClarty, K. Mattern, & M. Gaertner (Eds.), *Preparing students for college and careers: Theory, measurement, and educational practice*. Routledge.

B6 **Wai, J.**, & Kell, H. J. (2017). How important is intelligence in the development of professional expertise?: Combining prospective and retrospective longitudinal data provides an answer. In D. Z. Hambrick, G. Campitelli, & B. Macnamara (Eds.) *The science of expertise: Behavioral, neural, and genetics approaches to complex skill.* Routledge. 10.4324/9781315113371

B5 **Wai, J.**, & Kell, H. J. (2016). What innovations have we already lost?: The importance of identifying and developing spatial talent. In M. S. Khine (Ed.) *Visual-spatial ability in STEM education: Transforming research into practice* (pp. 109-124). Springer.

B4 **Wai, J.** (2015). Long-term effects of educational acceleration. In. S.G. Assouline, N. Colangelo, J. VanTassel-Baska, & A.E. Lupkowski-Shoplik (Eds.) *A nation empowered: Evidence trumps the excuses that hold back America's brightest students* (V. II, pp. 73-83). The Belin-Blank Center for Gifted and Talented Education.

B3 **Wai, J.** (2014). Matching potential and passion leads to promise: A model for educating intellectually talented youth. S. Moon & F. Dixon (Eds.), *Handbook of Secondary Gifted Education* (pp. 237-259). Prufrock Press.

B2 **Wai, J.**, Lubinski, D., & Benbow, C. P. (2009). Aligning potential and passion for promise: A model for educating intellectually talented youth. In J. S. Renzulli, E. J. Gubbins, K. S. McMillen, R. D. Eckert, & C. A. Little (Eds.) *Systems and models for developing programs for the gifted and talented* (2nd ed., pp. 693-716). Creative Learning Press.

B1 Halpern, D. F., **Wai, J.**, & Saw, A. (2005). A psychobiosocial model: Why females are sometimes > and sometimes < males in math achievement. In J. Kaufman and A. Gallagher (Eds.), *Gender Differences in Mathematics* (pp. 48-72). Cambridge University Press. 10.1017/CBO9780511614446.004

BOOK REVIEWS

R11 **Wai, J.** (2024). The quantification of everything. *Science, 384*(6692), 167. 10.1126/science.adn4664

R10 **Wai, J.** (2024). Metrics and their misapplications. *Science, 383*(6685), 836. 10.1126/science.adn4674

R9 **Wai, J.**, & Wai, M. (2023). A new philosophy of STEM work. *Science, 382*(6673), 891. 10.1126/science.adk9377

R8 **Wai, J.** (2023). Battling information bias. *Science, 381*(6659), 739. 10.1126/science.adj220

R7 **Wai, J.** (2023). Rethinking science education. *Science, 380*(6643), 351. 10.1126/science.adh9225

R6 **Wai, J.** (2023). College towns as talent hubs. *Science, 379*(6638), 1195. 10.1126/science.adg8109

R5 **Wai, J.** (2022). Spatial thinkers receive their due. *Science, 377*(6614), 1497. 10.1126/science.ade5504

R4 **Wai, J.** (2021). More than the message. *Science, 372*(6542), 579. 10.1126/science.abi5203

R3 **Wai, J.** (2016). Crossing disciplinary boundaries to better understand expertise. A review of *Understanding expertise: A multi-disciplinary approach*. *Intelligence, 57,* 64-65. http://dx.doi.org/10.1016/j.intell.2016.04.005

R2 **Wai, J.** (2009). A review of *Real education: Four simple truths for bringing America's schools back to reality*. *Intelligence, 37,* 321-322. http://dx.doi.org/10.1016/j.intell.2008.10.006

R1 **Wai, J.** (2008). A review of *Clocking the mind: Mental chronometry and individual differences*. *Gifted Child Quarterly, 52,* 99-104. http://dx.doi.org/10.1177/0016986207310434

POLICY PAPERS

P9 Djita, R. R., Parra-Martinez, A., **Wai, J.**, & McKenzie, S. C. (2023). The role of AP and concurrent courses on student postsecondary outcomes, out-of-state choice, and college selectivity. *Office for Education Policy, University of Arkansas, Arkansas Education Report, 20*(4), 1-67.

P8 National Working Group on Advanced Education (2023). Building a wider, more diverse pipeline of advanced learners. *Thomas B. Fordham Institute*.

P7 College Board Admissions Research Consortium. (2023). How did pandemic disruptions impact applications, enrollment, and outcomes at selective institutions? New findings and implications for long-term policy and practice. *College Board*.

P6 Tran, B., McKenzie, S. C., & **Wai, J.** (2022). Local norms and gifted and talented identification in Arkansas: Can it help improve student diversity? *Office for Education Policy, University of Arkansas, Arkansas Education Report, 19*(7), 1-23.

P5 **Wai, J.** (2022). Remarks to the Arkansas Senate Education Committee on the importance of gifted education. *Arkansas State Senate, February 16, 2022*.

P4 Tran, B., **Wai, J.**, & McKenzie, S. C. (2021). Gifted education in Arkansas: A longitudinal study of gifted status and academic growth. *Office for Education Policy, University of Arkansas, Arkansas Education Report, 18*(9), 1-46.

P3 Tran, B., **Wai, J.**, McKenzie, S., Mills, J. N., & Seaton, D. (2020). What can we learn about improving gifted identification by studying how accurate the process is in Arkansas? *Office for Education Policy, University of Arkansas, Arkansas Education Report, 18*(2), 1-31.

P2 **Wai, J.**, & Uttal, D. (2018). Why spatial reasoning matters for education policy. American Enterprise Institute (AEI) Education Policy Paper. http://www.aei.org/events/why-spatial-reasoning-matters-for-education-policy-remarks-from-professors-jonathan-wai-and-david-uttal/

P1 **Wai, J.**, & Worrell, F. C. (2017). Fully developing the potential of academically advanced students: Helping them will help society. American Enterprise Institute (AEI) Education Policy Paper. https://www.aei.org/research-products/report/fully-developing-the-potential-of-academically-advanced-students-helping-them-will-help-society/

OTHER: WORKING PAPERS, ENCYCLOPEDIA ENTRIES

O10 Morris, S. R., Parra-Martinez, A., **Wai, J.**, & Maranto, R. (2024). The notorious SBG: Administrators' perceptions of standards-based grading practices. *Brown University EdWorkingPaper*.

O9 Hooven, C. K., **Wai, J.**, Kievit, R., Ellison, P. T., Kosslyn, S. M., & Chabris, C. F. (2023). The sex difference in mental rotation test scores may not reflect a difference in mental rotation ability. *PsyArXiv.* https://psyarxiv.com/u39bw/

O8 Chabris, C. F., Jerde, T., Woolley, A. W., Gerbasi, M. E., Schuldt, J. P., **Wai, J.**, Bennett, S. L., Hackman, R., & Kosslyn, S. M. (2023). Spatial and object visualization cognitive styles: Validation studies in 3839 individuals. *PsyArXiv*. https://psyarxiv.com/98hw3/

O7 "Generalizability tests forecasting collaboration" contributor for the paper by Delios, et al. (2022). Examining the context sensitivity of research findings from archival data. *Proceedings of the National Academy of Sciences*.

O6 Volden, **Wai, J.**, & Wiseman, A. E. (2020). Elite education and legislative behavior in the U.S. Congress. *Center for Effective Lawmaking, University of Virginia and Vanderbilt University, Working Paper*. https://thelawmakers.org/wp-content/uploads/2020/05/Working-Paper-CEL-Elite-Education-and-Legislative-Effectiveness-1.pdf

O5 "Hiring decisions forecasting collaboration" contributor for the paper by Tierney et al. (2020). Creative destruction in science. *Organizational Behavior and Human Decisions Processes, 161,* 291-309. https://doi.org/10.1016/j.obhdp.2020.07.002

O4 **Wai, J.**, & Kell, H. J. (2019). Giftedness. In B. B. Frey (Ed.), *The SAGE Encyclopedia of Educational Research, Measurement and Evaluation* (pp. 734-735). Sage Publications.

O3 Kell, H. J. & **Wai, J.** (2019). Terman Longitudinal Study of Gifted Children. In B. B. Frey (Ed.), *The SAGE Encyclopedia of Educational Research, Measurement and Evaluation* (pp. 1665-1667). Sage Publications.

O2 **Wai, J.**, & Allen, J. (2018). Examining predictors of academic growth in secondary school among academically advanced youth across 21 years. *ACT Working Paper.*

O1 **Wai, J.**, & Lubinski, D. (2008). Intelligence. In F. T. L. Leong (Editor-in-Chief), E. M. Altmaier (Senior Editor) & B. D. Johnson's (Associate Editor) *Encyclopedia of Counseling, Volume 1: Changes and Challenges for Counseling in the 21st Century* (pp. 651-657). Sage Publications.

SELECTED PUBLIC SCHOLARSHIP

P53 **Wai, J.** (2023, September). Fads and fallacies of education reform: Why education policy and practice have become research-free zones. *Skeptic, 28*(3), 50-56.

P52 **Wai, J.** (2023, August 31). Seeing our policy choices clearly. *Forbes*.

P51 **Wai, J.** (2023, August 16). Finding the next Steve Wozniak. *Forbes*.

P50 **Wai, J.** (2023, July 24). Inspiring the next generation of makers through watchmaking. *Forbes*.

P49 **Wai, J.** (2023, May 23). Taking the turtle approach to public policy change. *Psychology Today*.

P48 **Wai, J.**, & Lee, M. H. (2023, March 30). GPT retook the GRE and improved: Could you? *Forbes*.

P47 Tran, B.**, Wai, J.**, & McKenzie, S. C. (2022, July 11). Gifted-student screenings often miss poor students who should qualify. *The Conversation, Fordham Institute*.

P46 **Wai, J.** (2022, March 15). How can we encourage more adults to engage in lifelong learning? *Forbes*.

P45 **Wai, J.** (2022, January 4). In what ways can open science best be promoted? *Forbes*.

P44 **Wai, J.** (2021, August 30). How can we improve evidence-based policymaking? *Forbes*.

P43 **Wai, J.** (2021, April 12). Understanding education policy failures is key to improving future policies and research. *Forbes*.

P42 **Wai, J.**, & Lakin, J. M. (2020, November 6). Using spatial ability tests to find 'missing Einsteins.' *Times Educational Supplement.* (print magazine)

P41 **Wai, J.**, & Makel, M. C. (2020, November 2). Why graduates of elite universities dominate the Time 100 – and what it means for the rest of us. *The Conversation*.

P40 **Wai, J.** (2020, October 21). What the research says on tests and test-optional policies in college admissions. *Forbes*.

P39 **Wai, J.** (2020, October 8). The undergraduate institutions with the most Nobel prize winners. *Forbes*.

P38 **Wai, J.** (2020, October 6). How research can help find the missing Einsteins. *Forbes*.

P37 **Wai, J.**, & Farmer, A. (2020, September 21). Many colleges have gone test-optional—here's how that could change the way students are admitted. *The Conversation*.

P36 Lakin, J. M., & **Wai, J.** (2020, July 28). Many students with the potential to excel in STEM fields struggle in school. *The Conversation, Fordham Institute*.

P35 **Wai, J.** (2019, December 13). Why we must get on board with RCTs if we want evidence-informed teaching. From "Nine research studies from 2019 you need to read," *Times Educational Supplement*. (print magazine)

P34 **Wai, J.**, & Zhang, D. (2019, October 16). The most revealing screen: Standardized tests have their problems, but they remain the best way of assessing students' academic merits. *City Journal, Fordham Institute*.

P33 **Wai, J.**, & Worrell, F. C. (2019, September 9). How to increase access to gifted programs for low-income students and black and Latino children. *The Conversation*.

P32 **Wai, J.** (2019, August 21). College rankings might as well be student rankings. *The Conversation, Salon, Business Insider*.

P31 **Wai, J.**, Brown, M. I., & Chabris, C. F. (2019, March 24). No one likes the SAT. It's still the fairest thing about admissions. *The Washington Post*. (Sunday print section)

P30 **Wai, J.** (2019, February 17). Book review: Making kids cleverer: A manifesto for closing the advantage gap. *Times Educational Supplement.* (print magazine)

P29 **Wai, J.** (2018, September 12). What college rankings really measure. *The Conversation, CNBC, Salon*

P28 **Wai, J.**, Nisen, M., Goudreau, J., Stanger, M., Jackson, A., Morrell, A., & Premack, R. (2013, 2014, 2015, 2016, 2018). U.S. colleges ranked by student brainpower. *Business Insider* (over 10 million reads)

P27 **Wai, J.**, & Worrell, F. C. (2017, September 22). The true path to social mobility. *Times Educational Supplement.* (print magazine feature)

P26 **Wai, J.**, & Rindermann, H. R. (2017, April 19). The myth of the college dropout. *The Conversation, U.S. News & World Report, Newsweek, CBS News, Time, World Economic Forum, Quartz* (700k+ views, widely shared as a key discussion point in the debate over higher education)

P25 **Wai, J.**, Hsu, S., & Clynes, T. (2016, October 7). Where Nobel winners get their start. *Nature News & Comment* (covered by *Quartz, LeMonde, Le Figaro, Sciences et Avenir*)

P24 **Wai, J.**, & Worrell, F. C. (2016, March 21). A nation at risk – how gifted, low-income kids are left behind. *The Conversation, The Huffington Post, National Review, Business Insider, Quartz, AlterNet*

P23 **Wai, J.** (2015, December 8). Having smart neighbors could mean a higher income for you. *Quartz, World Economic Forum* (named "best of the year" by The World Economic Forum)

P22 **Wai, J.**, & Miller, D. I. (2015, December 1). Here's why academics should write for the public. *The Conversation, The Huffington Post, Quartz, Northwestern University* (cited by the American Sociological Association)

P21 **Wai, J.**, & Worrell, F. C. (2015, October 20). Why are we supporting everyone except our most talented students? *Medium: Bright, National Review, Quartz*

P20 Hsu, S., & **Wai, J.** (2015, September 10). These 25 schools are responsible for the greatest advances in science. *Quartz* (covered by *The Wall Street Journal, Science, U.S. News, Harvard University*)

P19 **Wai, J.** & Makel, M. C. (2015, September 4). How do academic prodigies spend their time and why does that matter? *The Conversation, Quartz, World Economic Forum*

P18 **Wai, J.** (2015, July 8). By neglecting spatial intelligence, how many Elon Musks have we missed? *Quartz*

P17 **Wai, J.** (2015, March 22). Frank Bruni is wrong about Ivy League schools. *Quartz* (cited by *The Atlantic*)

P16 **Wai, J.** (2015, March 10). We should be paying attention to the 1% of brainiacs, not billionaires. *Quartz*

P15 **Wai, J.** (2015, February 3). The stubborn pattern of academic aptitude by college major: 1946 to 2014. *Quartz, World Economic Forum* (named "best of the year" by The World Economic Forum; among the most widely shared articles on *Quartz* of all time)

P14 **Wai, J.** (2014, September 9). Decades of Facebook likes will explain how you became yourself. *Quartz* (recognized by The Aspen Institute for "best ideas")

P13 **Wai, J.** (2014, August 28). Should the SAT be optional? *Quartz* (recognized by the American Enterprise Institute for "best ideas")

P12 **Wai, J.** (2014, August 5). The case for starting statistics education in kindergarten. *Quartz* (cited by *Bloomberg*)

P11 **Wai, J.** (2014, July 28). If you want to be rich and powerful, majoring in STEM is a good place to start. *Quartz* (cited by *The New York Times*)

P10 **Wai, J.** (2014, June 28). A shocking number of successful people went to elite schools. *Business Insider, Inc. Magazine*

P9 **Wai, J.** (2014, March 27). One size does not fit all: The need for variety in learning. *National Public Radio: Mindshift*

P8 Chabris, C. F., & **Wai, J.** (2014, March 9). Hire like Google? For most companies, that's a bad idea. *Los Angeles Times* (Sunday print section)

P7 **Wai, J.** (2014, January 3). Even as a child, Jeff Bezos was a data-obsessed, workaholic genius. *Quartz*

P6 **Wai, J.** & Nisen, M. (2013, October 23). The 25 countries with the most brainpower. *Business Insider, Yahoo!* (cited by *The Washington Post*)

P5 **Wai, J.** (2013, July 31). Why we need to value students' spatial creativity. *National Public Radio: Mindshift, Quartz*

P4 **Wai, J.**, & DiGioia, L. (2013, February 15). Why we need the math police. *Education Week*

P3 **Wai, J.** (2012, November 11). The U.S. needs to focus its educational efforts on talented Americans. *TechCrunch*

P2 **Wai, J.** (2012, July 24). The SAT needs to be harder. *Education Week* (response from VP of ETS)

P1 **Wai, J.** (2012, July/August). The brainiac-billionaire connection. *Psychology Today*. Pages 78-85, 92. (discussed and cited by Fareed Zakaria)

SELECTED INVITED TALKS

Wai, J. (2024, February). *Talk on gifted education*. Third Thursday think tank, Arkansas Department of Education. (virtual talk).

Wai, J. (2024, February). *Policy symposium panel*. 2024 Gifted Education Policy Symposium and Conference, Daniel L. Ritchie Endowed Chair in Gifted Education, University of Denver, Denver, CO. (virtual talk).

Wai, J. (2023, October). *Talk with the Council of State Directors of Programs for the Gifted*. Keynote address, CSDPG 2023 annual meeting. (virtual talk).

Wai, J. (2023, August). *How can we support more Arkansas talent? Linking research, policy, communication, and practice*. Rogers schools gifted coordinators, Rogers, AR.

Wai, J. (2023, July). *Supporting gifted and talented students in Arkansas and beyond*. Northwest Arkansas gifted coordinators at NWAESC, Farmington, AR.

Wai, J. (2023, July). *Historical, global, multidisciplinary, current, and future perspectives on giftedness and talent*. ISIR special symposium on giftedness, Berkeley, CA.

Parra-Martinez, F. A., & **Wai, J.** (2023, July). *Talent identification research: Building bridges across disciplines*. ISIR special symposium on giftedness, Berkeley, CA.

Schilling, J., & **Wai, J.** (2023, July). *Talent search 2.0: The landscape and coming future of new talent initiatives*. ISIR special symposium on giftedness, Berkeley, CA.

Wai, J. (2023, May). *Field notes from "adventures" in G/T research and policy*. Northwest Arkansas gifted coordinators at NWAESC, Farmington, AR.

Wai, J. (2023, March). *Psychology and education research, method plurality, science communication, and evidence-based policy*. Invited presentation to the Dept. of Educational Neuroscience/Educational Psychology, University of Alabama, Tuscaloosa, AL (virtual talk).

Wai, J. (2022, December). *National and global policy, public communications, research Q&A, and practice: Finding a middle ground.* Northwest Arkansas gifted coordinators at NWAESC, Farmington, AR.

Wai, J. (2022, September). *Scientific communication, quantitative methods, and evidence-based policy*. Department of Quantitative Methods and Evaluation, Vanderbilt University, Nashville, TN (virtual talk).

Worrell, F. C., Rothstein, J., Oswald, F., Zwick, R. J., **Wai, J.** et al. (2022, July). *When can psychological science be useful in educational policy and practice? The case of COVID-19 and college admissions processes*. Association for Psychological Science Global Collaboration on COVID-19 virtual panel.

Tran, B., McKenzie, S., & **Wai, J.** (2022, July). *Local norms in gifted identification: A step-by-step guide*. Northwest Arkansas gifted coordinators at NWAESC, Farmington, AR.

Williams, J., **Wai, J.**, & Howell, J. (2022, June). *New findings on the pandemic's impact on enrollment and college performance*. Impact session at the Association for Institutional Research Forum, Phoenix, AZ.

Wai J. (2022, March). *Why spatial learning is schools' missing metric*. Headliner panel at the *World Education Summit.*

Wai, J. (2021, November). *Scientific communication and evidence-based policy in the age of metascience*. Association for Interdisciplinary Meta-research and Open Science (AIMOS) (virtual conference).

Wai, J. (2021, October). *Psychological science and public communications: Debates and next steps*. American Psychological Association Essential Science Conversations (virtual panel).

Wai, J. (2021, April). *Multidisciplinary perspectives, heterodox questions, and gifted education*. 3rd European-American Summit on Talent Development, Berkeley, CA.

McKenzie, S., Seaton, D., **Wai, J.**, & Tran, B. (2020, November through 2021, March). *10+ presentations on gifted and talented research in Arkansas to various districts and coordinators*. Locations across the state of Arkansas.

Wai, J. (2020, July). *Importance of triaging evidence using the Every Student Succeeds Act as a frame*. NAGC Leadership and Advocacy Conference, Washington, D.C.

Wai, J. (2020, January). *Lessons learned from studying and communicating individual differences research*. Keynote address, 2nd Biennial Heterodoxy in Psychology Conference, Chapman University, Orange, CA.

Wai, J. (2018, November). *Why spatial reasoning matters for education*. University of Arkansas College of Education and Health Professions CLASS session, Fayetteville, AR.

Wai, J., Uttal, D., & Streeter, R. (2018, October). American Enterprise Institute (AEI) event on *why spatial reasoning matters for education policy*. Washington, DC.

Wai, J. (2018, May). *Why should society care about gifted kids? What are effective ways to help them?* Keynote address, Third International Conference of Giftedness. Mexico City, Mexico.

Wai, J. (2017, November). *Understanding elite occupational achievement: Abilities, education, training, and expertise.* Illinois Institute of Technology Department of Psychology, Chicago, IL.

Wai, J. (2017, October). *Lessons learned about gifted advocacy through writing and journalism*. Ohio Association for Gifted Children Fall Conference, Columbus, OH.

Wai, J. (2017, June). *What explains outcomes? The roles of education and talents.* American Enterprise Institute Education Policy Group, Washington, DC.

Wai, J. (2016, October). *Learning from the science and science communication interface. How can that improve psychological science?* Case Western Reserve University department of psychology, Cleveland, OH.

Wai, J. (2016, April). *What goes into high achievement of academically talented students?: Education, brains, hard work, networks, and other factors.* Inaugural Invitational Summit on European/American Talent Development, Washington, D.C.

Wai, J. (2015, September). *Spatial reasoning and STEM: Identification, learning, and achievement.* Integrating Cognitive Science with Innovative Teaching in STEM Disciplines: Modeling and Spatial Learning in STEM conference, Northwestern University, Evanston, IL.

Wai, J. (2014, March). *Experts are born, then made: Combining prospective and retrospective longitudinal data shows that cognitive ability matters in the U.S. and the world.* Wallace Research & Policy Symposium on Talent Development, Arlington, VA.

Wai, J. (2013, July). *The importance of STEM educational dose and spatial ability for female STEM achievement.* STEM Think Tank and Conference, Nashville, TN.

Wai, J., & Putallaz, M. (2012, July). *Why are so many more gifted students being identified?* 12th Asia-Pacific Conference on Giftedness, Dubai, United Arab Emirates.

Wai, J. (2012, April). *Science outreach*. 15th annual NIEHS Biomedical Career Fair, EPA Campus, Research Triangle Park, NC.

Wai, J. (2011, November). *The concept of "educational dose" and program evaluation for the intellectually talented*. Purdue University College of Education, West Lafayette, IN.

Wai, J., Lubinski, D., & Benbow, C. P. (2009, November). *Spatial ability for STEM arenas: Combining over a half-century of cumulative psychological knowledge solidifies its importance.* Keynote address, New Voices in Creativity and Intelligence Symposium, Lawrence, KS.

RECENT SELECTED CONFERENCE TALKS

Djita, R. R., Helal, A. M., Parra-Martinez, A., **Wai, J.**, & McKenzie, S. C. (forthcoming, 2024, April). *College selectivity and postsecondary outcomes among gifted and talented (G/T) students: Longitudinal study from Arkansas.* Paper to be presented at the American Educational Research Association (AERA) annual conference, Philadelphia, PA.

Morris, S., Parra-Martinez, A., **Wai, J.**, & Maranto. R. A. (forthcoming, 2024, April). *Teachers' and administrators' grading perceptions*. Poster to be presented at the annual meeting of the National Council on Measurement in Education (NCME), Philadelphia, PA.

Djita, R. R., Helal, A. M., Parra-Martinez, A., **Wai, J.**, & McKenzie, S. C. (2024, March). *The role of Advanced Placement (AP) and concurrent credit (CE) courses on student postsecondary outcomes.* Paper presented at the 49th annual meeting of the Association for Education Finance & Policy, Baltimore, MD.

Wai, J., McKenzie, S., C., Seaton, D., Tran, B. T. N., Parra-Martinez, A., Helal, A. M., & Djita, R. (2024, February). *Gifted and talented research in Arkansas: Identification, programming, and college outcomes*. Arkansans for Gifted and Talented Education (AGATE) Conference. Hot Springs, AR.

Helal, A. M., **Wai, J.**, McKenzie, S. C., & Parra-Martinez, F. A. (2023, November). *A comparative study of the CogAT and ACT Aspire tests for identifying gifted learners in Arkansas*. Poster presented at the MSERA Annual Meeting, Pensacola Beach, FL.

Vernon, M., Parra-Martinez, F. A., **Wai, J.**, & Helal, A. M. (2023, November). *The asset-burden paradox across fields and the lifespan: A systematic review*. Paper presented at the NAGC convention, Orlando, FL.

Nallathambi, A., Parra-Martinez, F. A., & **Wai, J.** (2023, November). *"Don't say gay": The impact of anti-LGBTQ legislation on public opinion and gifted learners*. Paper presented at the NAGC convention, Orlando, FL.

Parra-Martinez, F. A., & **Wai, J.** (2023, July). *Evolution of intelligence research: First decade of the Journal of Intelligence.* Poster presented at the ISIR conference, Berkeley, CA.

Goldstein, J., Coady, E., & **Wai, J.** (2022, March). *Looking into the black box: Conceptualizing open science practices in education policy*. Paper presented at the 47th Annual Conference of the Association for Education Finance and Policy (AEFP).

Tran, B. T. N., **Wai, J.**, Mills, J. N., McKenzie, S. C., & Seaton, D. (2021, July-August). *What can we learn about improving gifted identification by studying how accurate the process is in Arkansas?* Paper presented at the 2021 WCGTC Biennial World Conference, virtual conference.

Tran, B. T. N., **Wai, J.**, & McKenzie, S. C. (2021, July-August). *Gifted education in Arkansas: A look into gifted education and achievement in a rural state*. Paper presented at the 2021 WCGTC Biennial World Conference, virtual conference.

Seaton, D., **Wai, J.**, Tran, B. T. N., McKenzie, S. C., & Mills, J. N. (2020, November). *Using research to defend universal screening: A research-practice partnership in gifted education*. Paper presented at the 67th annual convention of the National Association for Gifted Children, virtual conference.

McKenzie, S. C., Tran, B. T. N., **Wai, J.**, Mills, J. N., & Seaton, D. (2020, October). *How state assessments can improve equity in gifted education*. Paper presented at the Mid-South Educational Research Association (MSERA), virtual conference.

Tran, B. T. N., **Wai, J.**, Mills, J. N., McKenzie, S. C., & Seaton, D. (2020, April). *Gifted and talented education in Arkansas: Accuracy of identification and efficacy of programming*. Poster presented at the annual meeting of the American Educational Research Association, San Francisco, CA. (conference cancelled)

Lakin, J. M., & **Wai, J.** (2020, April). *Spatially gifted, academically inconvenienced: Associations of spatial talents with lower academic engagement and more behavioral issues*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA. (conference cancelled)

Wai, J., Anderson, S., Perina, K., Worrell, F. C., & Chabris, C. F. (2020, April). *Academic giftedness and high performance: A study of 26,000 top achievers in 30 fields*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA. (conference cancelled)

Brown, M. I., **Wai, J.**, & Chabris, C. F. (2020, April). *Can you ever be too smart to be successful? Linear and nonlinear effects of GMA*. Poster presented at the 35th meeting for the Society for Industrial and Organizational Psychology, Austin, TX. (conference cancelled)

Seaton, D., **Wai, J.**, Tran, B. T. N., McKenzie, S. C., & Mills, J. N. (2020, February). *Universal screening implementation in Northwest Arkansas*. Paper presented at the Arkansans for Gifted & Talented Education (AGATE) State Conference, Hot Springs, AR.

Wai, J., & Allen, J. (2019, November). *What boosts talent development? Examining predictors of academic growth among gifted youth*. Paper presented at the 66th annual convention of the National Association for Gifted Children, Albuquerque, NM.

Lakin, J. M., & **Wai, J.** (2019, November). *Spatially talented students: Academic struggles for underserved talent*. Paper presented at the 66th annual convention of the National Association for Gifted Children, Albuquerque, NM.

Lakin, J. M., & **Wai, J.** (2019, July). *Finding the missing Einsteins: Searching for exceptional ability in talent searches, K-12, and higher education*. Paper presented at the International Society for Intelligence Research Conference, Minneapolis, MN.

Lakin, J. M., & **Wai, J.** (2019, April). *Spatial reasoning: The third pillar of human intelligence and key to proportional G/T identification?* Paper presented at the American Educational Research Association, Toronto, Canada.

Wai, J., & Lakin, J. M. (2018, November). *Which cognitive and noncognitive measures can help identify disadvantaged talent?* Panel paper presented at the Association for Public Policy Analysis & Management, Washington, D. C.

Lakin, J. M., & **Wai, J.** (2018, November). *Nontraditional measures of talent to address underrepresentation: New evidence from old data.* Paper presented at the 65th annual convention of the National Association for Gifted Children, Minneapolis, MN.

Hodges, J., Makel, M. C., & **Wai, J.** (2018, May). *Sex differences in ability tilt in the right tail of cognitive abilities: A 35-year examination*. Paper presented at the Wallace Research Symposium, Iowa City, IA.

Miller, D. I., **Wai, J.**, & Uttal, D. (2018, April). *Gender differences in joining STEM during college*. American Educational Research Association 2018 presentation for Committee on Scholars and Advocates for Gender Equity in Education.

Wai, J., Kanaya, T., & Worrell, F. C. (2017, November). *An historical test score trend may be reversing which could negatively impact already underrepresented gifted kids*. Paper presented at the 64th annual convention of the National Association for Gifted Children, Charlotte, NC.

Lakin, J. M., **Wai, J.**, & Coxon, S. (2017, November). *Spatial talents and STEM programs: Identification and curricular innovations*. Paper presented at the 64th annual convention of the National Association for Gifted Children, Charlotte, NC.

Wai, **J.**, & Makel, M. C. (2016, November). *Do "brain training" programs work? The research behind the games and how to evaluate them*. Paper presented at the 63rd annual convention of the National Association for Gifted Children, Orlando, FL.

Wai, J. & Worrell, F. C. (2016, November). *Helping financially disadvantaged and spatially talented students: An empirically based strategy to help level the playing field*. Paper presented at the 63rd annual convention of the National Association for Gifted Children, Orlando, FL.

Volden, C., Wiseman, A. E., & **Wai, J.** (2016, November). *Elite education, liberalism, and effective lawmaking in the U.S. Congress*. Conference paper presented at the Association for Public Policy Analysis & Management, Washington, D. C.

Makel, M. C., **Wai, J.**, Peairs, K., & Putallaz, M. (2016, April). *Sex differences in the right tail of cognitive abilities: An update and cross cultural extension*. Paper presented at the annual meeting of the American Educational Research Association, Washington, D. C.

Miller, D. I., **Wai, J.**, & Uttal, D. H. (2014, September). *How spatial skills relate to movement into and out of STEM*. Poster presented at the 2014 Spatial Cognition conference in Bremen, Germany.

Wai, J., & Putallaz, M. (2012, November). *Why are so many more gifted students being identified?* Paper presented at the 59th annual convention of the National Association for Gifted Children, Denver, CO.

Wai, J., Cacchio, M., Putallaz, M., & Makel, M. C. (2010, December). *An examination of sex differences in the top 5% of cognitive abilities: 1981-2010.* Paper presented at the eleventh annual meeting of the International Society for Intelligence Research, Alexandria, VA.

Wai, J., Makel, M. C., Putallaz, M., & Cacchio, M. (2010, November). *Summer academic programs and longitudinal educational and occupational outcomes among the exceptionally talented*. Paper presented at the 57th annual convention of the National Association for Gifted Children, Atlanta, GA.

Wai, J., Lubinski, D., Benbow, C. P., & Steiger, J. H. (2010, May). *Accomplishment in science, technology, engineering, and mathematics (STEM) and its relation to STEM educational dose: A 25-year longitudinal study*. Paper presented at the tenth biennial Wallace National Research Symposium on Talent Development, Iowa City, IA.

TEACHING AND MENTORING

University Teaching

Instructor

Psychology of Education (graduate), University of Arkansas, 2018-present
Measurement of Educational Outcomes (graduate), University of Arkansas, 2018-present
Special Problems (graduate), University of Arkansas, 2018-present
Doctoral Dissertation (graduate), University of Arkansas, 2018-present
Research Seminar in education policy (graduate), University of Arkansas, 2022-present
Research Methods (graduate), John Carroll University, Spring 2018
Psychometric Methods (undergraduate), Vanderbilt University, Spring and Fall, 2008; Spring, 2009
Introduction to Statistical Analysis (undergraduate), Vanderbilt University, Spring and Fall, 2007

Guest Lecturer

COEHP Writing Retreat (faculty, graduate students), editing and writing, University of Arkansas
Understanding Genius (undergraduate), measurement of intelligence, Duke University

Psychological Measurement (graduate), factor analysis, Vanderbilt University
Psychometric Methods (undergraduate), regression, Vanderbilt University

Teaching Assistant
Statistical Inference (graduate), Vanderbilt University
Quantitative Methods and Experimental Design (graduate), Vanderbilt University
Introduction to Statistical Analysis (undergraduate), Vanderbilt University
Psychometric Methods (undergraduate), Vanderbilt University

K-12 Teaching
K-12 substitute teaching license, general education, Ohio, 2017-2018

Mentoring

Postdoctoral fellow and other student supervision, University of Arkansas
Andy Parra-Martinez (postdoc), 2022-present
Miranda Vernon (research associate), 2022-present

Doctoral student supervision, University of Arkansas
Al Mansor Helal, 2022-present
Bich Tran, 2018-2022
Marc Boswell, 2020-2021

Doctoral dissertation committees, University of Arkansas
Sarah Morris, member
Kate Barnes, member
Jessica Goldstein Holmes, member
Cassidy Syftestad, member
Rian R. Djita, member (defended 2024)
Bich Tran, chair (defended 2022)
Martha Bradley Dorsey, member (defended 2021)
Lina Anaya Beltran, member (defended 2021)

Doctoral dissertation committee, University of Alabama
Jacob Feiler, member (defended 2023)

Doctoral dissertation outside reader, University of Connecticut
Kevin M. Agnello

Written and oral field examinations, University of Arkansas
2024: Alison Heape Johnson
2023: Mattie Harris, Sarah Morris, Kate Barnes
2021: James Paul, Jessica Goldstein Holmes, Bich Tran
2020: Lina Anaya Beltran, Martha Bradley Dorsey
2019: Matthew H. Lee

Method qualifying examinations, University of Arkansas, 2022-present

Undergraduate honors thesis committee, University of Arkansas
Juliana Sweet, member (defended 2023)

I am currently mentoring and collaborating with doctoral students at the University of Arkansas. I also mentored graduate students with their research projects in the department of psychology at Case Western Reserve University as part of my role as a visiting researcher.

I have mentored undergraduate students at Vanderbilt University and Duke University who have gone on to attend graduate programs at institutions such as Columbia University, UNC-Chapel Hill, Vanderbilt University, and Washington University in St. Louis.

SERVICE

University

University of Arkansas
University Wide Distinguished Doctoral Fellows Review and Selection Committee (2023-present)
College of Education and Health Professions, College Course and Program Committee (2019-present); Chair, 2023-2024
College of Education and Health Professions, Impactful Research Committee (2023-present)
College of Education and Health Professions, College Wide Scholarship Committee (2021-present)
College of Education and Health Professions, International Affairs Committee (2022-present)
College of Education and Health Professions, Strategic Planning Committee (2023)
Education Reform, Strategic Planning Committee (2022)
Education Reform, Personnel and Tenured Professors Committee (2023-present)
Education Reform, Dept. Head and Endowed Chair in Education Policy Search Committee (2022-present)
Education Reform, Endowed Chair in Education Accountability Search Committee (2023-present)
Education Reform, Fellowships and Study Abroad Committee (2023-present)

Profession

Leadership
Advisory Board, Virtual Center for Advanced Potential (VCAP), Schmidt Futures (2022-present)
Chair, Education Working Group, APS Global Collaboration on COVID-19 (2021-present)
Advanced Education Working Group, Thomas B. Fordham Institute (2022-present)
Research Advisory Board, College Board Admission Research Consortium (2021-present)

Member at Large, Chair, Awards committee, AERA Giftedness, Creativity, and Talent SIG (2020-2022)
Board of Directors, Chair, Presidential and board member search committee, Chair, Holden award committee, International Society for Intelligence Research (2020-2022)

Associate Editor/Editorial Board
Humanities & Social Sciences Communications (2023-present)

Editorial Board
Intelligence (2016-present)
Journal of Expertise (2017-present)
Gifted Child Quarterly (2018-present)
Journal for the Education of the Gifted (2019-present)
Journal of Intelligence (2021-present)

Journal Referee
AERA Open, American Psychologist, Annals of the New York Academy of Sciences, Applied Developmental Science, Applied Economics Letters, Archives of Scientific Psychology, Assessment, Biological Rhythm Research, Cognitive Science, Cognition, Cultures of Science, Current Directions in Psychological Science, Developmental Psychology, Developmental Review, Education Economics, Educational Evaluation and Policy Analysis, Educational Policy, Educational Psychology Review, Educational Researcher, Equity & Excellence in Education, European Journal of Psychology of Education, Frontiers in Cognition, Frontiers: Developmental Psychology, Frontiers: Movement Science and Sport Psychology, Gifted & Talented International, Heliyon, High Ability Studies, IEEE:

Transactions on Learning Technologies, Infant Behavior and Development, International Journal of Behavioral Development, International Journal of Education in Mathematics, Science and Technology, International Journal of Science Education, International Journal of STEM Education, Journal of Advanced Academics, Journal of Educational Psychology, Journal of Engineering Education, Journal of Experimental Psychology: General, Journal of Experimental Psychology: Learning, Memory, and Cognition, Journal of Motor Learning and Development, Journal of Open Innovation: Technology, Market, and Complexity, Journal of Open Psychology Data, Journal of Research in Personality, Journal of School Choice, Journal of Women and Minorities in Science and Engineering, Learning and Individual Differences, Learning and Instruction, PeerJ, PLOS One, Psychological Bulletin, Psychological Reports, Psychological Science, Psychonomic Bulletin & Review, Psych, Review of General Psychology, Roeper Review, Royal Society Open Science, SAGE Open, Science Education, SN Social Sciences, South African Journal of Education, Spatial Cognition and Computation: An Interdisciplinary Journal, Sustainability, The Asia-Pacific Education Researcher, The European Journal of Health Economics, The Leadership Quarterly, TopiCS: Topics in Cognitive Science

Book Publisher Referee

Cambridge University Press, Elsevier, Macmillan Learning, Oxford University Press, Red Globe Press

Grant Reviews

Swiss National Science Foundation, 2023-present
National Endowment of the Arts, 2023-present
Schmidt Futures, 2022-present
Ministry of Education, United Arab Emirates, 2022-present
University of Arkansas, COEHP, WE CARE initiative, 2022-present
University of Arkansas, COEHP, Study abroad applications, 2023-present
Mensa Foundation, 2022-present
American Psychological Foundation, 2021-present
National Science Foundation, 2013, 2015
Jacob K. Javits Gifted and Talented Program, 2014-2016

External Tenure and Promotion Reviews

University of Georgia
University of North Texas

Academic Reputation Reviews

QS World University Rankings
Times Higher Education World University Rankings
US News Best Global Universities Rankings

Committee and Other Service

Chair, Awards committee, AERA SIG-Research on Giftedness, Creativity and Talent, 2020-2022
Chair, Presidential and board member search committee, International Society for Intelligence Research, 2020-2022
Chair, Holden award committee, International Society for Intelligence Research, 2019-2022
Member, Mensa Foundation Education and Gifted Youth Committee, 2022-present
Member, Holden award committee, International Society for Intelligence Research, 2012-present
Member, *Gifted Child Quarterly* paper of the year panel, 2022
Research Advisory Group, Study of Mathematically Precocious Youth, 2022-2023
Mentorship Program, AERA SIG-Research on Giftedness, Creativity, and Talent, 2022-present

Member, Legislative and Advocacy Committee, National Association for Gifted Children, 2016-2019
Proposal Reviewer, AERA SIG-Research on Giftedness, Creativity and Talent, 2017-present
Proposal Reviewer, AERA Division L, Section 5: Testing, Accountability, and Data Use, 2020-present
Proposal Reviewer, AERA Division G, Section 1: Education and Place, Space, Time, 2022-present
Proposal Reviewer, APA Division 15, Educational Psychology, 2022-present
Proposal Reviewer, National Association for Gifted Children, 2015-present
Proposal Reviewer, International Society for Intelligence Research, 2010-present
Duke Talent Identification Program Research Committee, 2016-2017
Website Committee, International Society for Intelligence Research, 2012-2013
Consultant, Duke Talent Identification Program, Admissions, Educational Programs, International Programs, Marketing, the Next Generation Venture Fund, and Talent Search, 2009-2017
Duke Talent Identification Program Staff Advisory Committee, Alternate, 2009-2010
Visual Historian, International Society for Intelligence Research, 2003-2008
Graduate Student Council for Psychology and Human Development, 2003-2004

SELECTED DISCUSSION AND IMPACT OF WORK

Columnist for *Forbes Science*.
Columnist for *Psychology Today*: "Finding the Next Einstein: Why Smart is Relative."
Contributor to *Science* (print magazine), *Psychology Today* (print magazine), *Times Educational Supplement* (print magazine), *The Conversation, Quartz, Business Insider*, etc.

My research and writing has reached millions of people, has been discussed by thought leaders ranging from Fareed Zakaria to Andrew Sullivan, and has started discussions in countries ranging from Australia to Vietnam. Recognition from The Aspen Institute and The American Enterprise Institute for "best ideas."

Discussion in: *Science, Nature, The New York Times, The Economist, The Wall Street Journal, Scientific American, CNBC, Financial Times, Bloomberg, Le Monde, Le Figaro, Inc. Magazine, MIT Technology Review, Discover, Fast Company, American Scientist, Education Week, Wired, Forbes, Psychology Today, Quartz, Business Insider, The Chicago Tribune, The Daily Beast, Christian Science Monitor, Reuters, Inside Higher Ed, The Chronicle of Higher Education, Chalkbeat, Times Education Supplement, The New Republic, Reason, The Week, National Review, The Daily Mail, The Guardian, The Huffington Post, Yahoo!* and newspapers worldwide.

My work has also been discussed by the U.S. Supreme Court, U.S. Court of Appeals, United Nations, World Bank, OECD, National Academy of Sciences, National Academy of Engineering, Institute of Medicine, National Science Board, and multiple academic textbooks and mainstream books, including Fareed Zakaria's *In defense of a liberal education*, Tyler Cowen's *Average is over*, Tom Clynes's *The boy who played with fusion*, Jeffrey Selingo's *Who gets in and why*, and Ron Lieber's *The price you pay for college*.