

Andrea E. Weinberg

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Mary Lou Fulton Teachers College
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I. Education

Spring 2013	Ph.D., Education & Human Resource Studies Specialization: Research Methods, STEM Teacher Education Colorado State University, Fort Collins, CO
Summer 2006	M.Ed., Education & Human Resource Studies Specialization: Educational Leadership Colorado State University, Fort Collins, CO
Fall 1999	Teaching Certification Specialization: K-12 Special Education West Texas A&M University, Canyon, TX
Spring 1999	B.B.A., Accounting West Texas A&M University, Canyon, TX

II. Academic Appointments

2017 - present	Assistant Professor (Tenure Track) Mary Lou Fulton Teachers College, Arizona State University (ASU) Senior Scholar, Julie Ann Wrigley Global Futures Laboratory Affiliate Faculty, Institute of Social Science Research (ISSR)
2013 - 2017	Clinical Assistant Professor (Non-Tenure Track) School of Education, Colorado State University (CSU)
2008 - 2013	Research Associate I, II, Research Scientist School of Education, CSU
2006 - 2013	Instructor School of Education (SOE), CSU
2006 - 2008	Graduate Research Assistant SOE, Research & Development Center for Student Learning, CSU

III. K-12 Teaching Experience

2002 - 2006	Mathematics and Science Special Education Teacher Roosevelt High School, Johnstown, CO
2001 - 2002	Special Education Teacher & Department Chair El Rito Elementary, El Rito, NM
1999 - 2001	Special Education Teacher A. J. Moore Academy, Waco, TX

IV. PUBLICATIONS

Google Scholar Profile:

https://scholar.google.com/citations?hl=en&user=2h8PiNoAAAAJ&view_op=list_works&sortby=pubdate

As of 5/5/2023, total citations = 654, h-index = 14, and i10-index = 18

A. Refereed Journal Articles: Published

* Indicates graduate student status at time of submission ^Δ Indicates undergraduate student status at time of submission

23. Trott, C. D., **Weinberg, A. E.**, Frame, S. M., Peterson, J., & Even, T. (accepted). Exploring the developmental impacts of climate change education on youth in Jacmel, Haiti. *International Journal of Behavioral Development*. [doi forthcoming]
22. Merritt, E. M., **Weinberg, A. E.**, & Archambault, L. M. (2023). Exploring Energy Through the Lens of Equity: Funds of Knowledge Conveyed Through Video-Based Discussion. *International Journal of Science and Mathematics Education*. <https://doi.org/10.1007/s10763-023-10352-3>
21. *Audrain, R. L., *Ruiz, E. A., Wyatt, L. G., Nailor, N., **Weinberg, A. E.** (2023). Sustaining teachers through collaboration and autonomy: Outcomes of a professional development experience. *The New Educator*. <https://doi.org/10.1080/1547688X.2023.2203202>
20. *Cicchino, A., **Weinberg, A. E.**, Sample McMeeking, L. B., Balgopal, M. M. (2023). Critical pedagogy of place to enhance ecological engagement activities. *Conservation Biology*. <https://doi.org/10.1111/cobi.14023>
19. *Wright, D. D., Balgopal, M. B., **Weinberg, A. E.**, & Sample McMeeking, L. B. (2022). I will survive: Teachers reflect on motivations to remain in education amidst a global pandemic. *Journal of Research on Science Teaching*. <https://doi.org/10.1002/tea.21831>
18. Balgopal, M. M., **Weinberg, A. E.**, Sample McMeeking, L. B., *Lin Hunter, D. E., & *Wright, D. S. (2022). A sense of belonging: The role of higher education in retaining quality STEM teachers. *PLOS one*. <https://doi.org/10.1371/journal.pone.0272552>
17. *Wakefield, W., **Weinberg, A. E.**, *Pretti, E., Merritt, E. M., & Trott, C. D. (2022). "When I act consciously, I can see a brighter world around me": Preservice teacher readiness to support transformative sustainability learning for K-8 students. *Environmental Education Research*. <https://doi.org/10.1080/13504622.2022.2085246>
16. Boveda, M., & **Weinberg, A. E.** (2022). Centering racialized educators in collaborative teacher education: Developing intersectional consciousness to prepare a diverse special education teacher workforce. *Teacher Education and Special Education*, 45(1), 8-26. <https://doi.org/10.1177/08884064211062874>
15. **Weinberg, A. E.**, Balgopal, M., & Sample McMeeking, L.B. (2021). Professional growth and identity development of STEM teacher educators in a community of practice. *International Journal of Science and Mathematics Education*, 19, 99-120. <https://doi.org/10.1007/s10763-020-10148-9>
14. Boveda, M., & **Weinberg, A. E.** (2020). Facilitating intersectionally conscious collaborations in physics education. *The Physics Teacher*, 58, 480-483. <https://doi.org/10.1119/10.0002066>
13. Trott, C. D., & **Weinberg, A. E.** (2020). Science education for sustainability: Strengthening science engagement through climate change learning and action. *Sustainability*. 12(16), 6400. <https://doi.org/10.3390/su12166400>

12. **Weinberg, A. E.**, Trott, C. D., *Wakefield, W., Merritt, E. M., & Archambault, L. M. (2020). Looking inward, outward, and forward: Exploring the process of transformative learning in teacher education for a sustainable future. *Sustainability Science*. 15, 1767-1787. <https://doi.org/10.1007/s11625-020-00831-9>
11. **Weinberg, A. E.**, Sebald, A., Stevenson, C. A., & *Wakefield, W. (2020). Toward conceptual clarity: A scoping review of coteaching in teacher education. *The Teacher Educator*. 55(2), 190-213. <https://doi.org/10.1080/08878730.2019.1657214>
10. Trott, C. D., Sample McMeeking, L. B., & **Weinberg, A. E.** (2019). Participatory action research experiences for undergraduates: Forging critical connections through community engagement. *Studies in Higher Education*. 45(11), 2260-2273. <https://doi.org/10.1080/03075079.2019.1602759>
9. *Wright, D., Balgopal, M. M., Sample McMeeking, L. B., & **Weinberg, A. E.** (2019). Developing resilient K-12 teachers to broaden participation of students in STEM. *Advances in Developing Human Resources*. 21(1) 16-34. <https://doi.org/10.1177/152342231884483>
8. Trott, C. D., **Weinberg, A. E.**, & Sample McMeeking, L. B. (2018). Prefiguring sustainability through participatory action research experiences for undergraduates: Reflections and recommendations for student development. *Sustainability*. 10(9) 3332. <https://doi.org/10.3390/su10093332>
7. **Weinberg, A. E.**, Trott, C. D., & Sample McMeeking, L. B. (2018). Who produces knowledge? Transforming undergraduate students' views of science through participatory action research. *Science Education*. 102(6) 1155-1175. <https://doi.org/10.1002/sce.21453>
6. **Weinberg, A. E.** & Sample McMeeking, L. B. (2017). Toward meaningful interdisciplinary education: High school teachers' views of mathematics and science integration. *School Science and Mathematics*, 117(5), 204-213. <https://doi.org/10.1111/ssm.12224>
5. Sample McMeeking, L. B., **Weinberg, A. E.**, *Boyd, K. J., & Balgopal, M. M. (2016). Student perceptions of interest, learning, and engagement from an informal traveling science museum. *School Science and Mathematics*, 116(5), 253-264. <https://doi.org/10.1111/ssm.12176>
4. Rathburn, S. & **Weinberg, A. E.** (2011). Undergraduate student satisfaction and achievement at the GetWET observatory: A fluid learning experience at Colorado State University. *Journal of Geoscience Education*, 59(2), 47-55. <https://doi.org/10.5408/1.3543936a>
3. **Weinberg, A. E.**, Basile, C. B., & Albright, L. (2011). The effects of an experiential learning program on middle school students' mathematics and science motivation. *Research in Middle Level Education*, 35(3), 1-12. <https://doi.org/10.1080/19404476.2011.11462086>
2. **Fritz (Weinberg), A. E.**, Stevenson, C. A., & Cooner, D. D. (2009). Training new teachers to teach literacy: The university-public school partnership. *Reading Improvement*. 46(1).), 19-29. <https://link.gale.com/apps/doc/A196962248/AONE?u=anon~741ab2da&sid=googleScholar&xid=b754c452>
1. Stevenson, C. A., Cooner, D. D., & **Fritz (Weinberg), A. E.** (2008). Self-perceptions of standards acquisition during the principal internship. *The International Electronic Journal for Leadership in Learning*, 12(5). <https://files.eric.ed.gov/fulltext/EJ940557.pdf>

B. Refereed Journal Articles: In Review

4. *Diaz-Clark, E. D., *Otto, J. L., *Wright, D. D., Sample McMeeking, L. B., **Weinberg, A. E.**, & Balgopal, M. B. (in revision). STEM teacher agency during the pandemic: Navigating challenges

by accessing professional and personal capitals. *Science Education*.

3. Merritt, E. M., **Weinberg, A. E.**, & Archambault, L. M. (in review). Exploring energy through the lens of equity: Funds of knowledge conveyed through Flipgrid. *International Journal of Science and Mathematics Education*.
2. **Weinberg, A. E.**, Stevenson, C. A., & *Ruiz, E. A. (in revision). Third Space through collaboration, coteaching, and pedagogies of practice: Exploring outcomes and opportunities. *The Teacher Educator*.
1. *Audrain, R. L., *Ruiz, E. A., Wyatt, L. G., Nailor, N., **Weinberg, A. E.** (in revision). Sustaining teachers through collaboration and autonomy: Outcomes of a professional development experience. *The New Educator*.

C. Refereed Journal Articles: In Progress

* Indicates current graduate student status, ^Δ Indicates current undergraduate student status

Weinberg, A. E., & Boveda, M. (in progress). Intersectionally conscious collaboration in teacher education. *Journal of Teacher Education*.

Weinberg, A. E., *Jongewaard, R., & Jordan, M. (in progress). "Real work, real consequences": A framework for K-12 teachers' use of action-oriented pedagogies. *Sustainability*.

Weinberg, A. E., *Audrain, R. L., A. Wyatt, L., & Nailor, N. (in progress). Networked cohorts: Teacher collaboration and connection in nested communities of practice. *Studying Teacher Education*

Merritt, E. G., Rimm-Kaufman, S., **Weinberg, A. E.** (in progress) Energy Problem Solvers. *Journal of Research on Science Teaching*

Weinberg, A. E., *Ruiz, E., *Wakefield, W., Sebald, A., & Stevenson, C. A., (in progress). Coteaching during student teaching: A systematic review. *Teaching and Teacher Education*

Merritt, E. M., **Weinberg, A. E.**, *Pretti, E. D, & Wakefield, W. Future teachers' misunderstandings about sustainability science: A framework of misconceptions. *Science Education*

Weinberg, A. E., ^ΔOlakkengil, J. R., ^ΔRodriguez Portals, L., ^ΔValenzuela, E. C., *Ruiz, E. A., Balgopal, M. M., & Sample McMeeking, L. B. Sweet lemonade from sour lemons: STEM teachers leveraging critical hope in times of crises. *Action in Teacher Education*.

Southerland, S., **Weinberg, A. E.**, & Balgopal, M. B., et al. (in progress). Ambitious and rigorous STEM teaching in high-needs classrooms: Case studies. *Science Education*.

D. Peer-Reviewed Book Chapters

7. *LeSueur, B., *Pinkerton, T., & **Weinberg, A. E.** (in review). Action research to bridge the gap between coursework and field experiences. In S. Ewell, J. Giblin, and J. McNabb (Eds.), *Contemporary perspectives through action research across educational disciplines: Higher education*. Information Age.

6. *Audrain, R. L., **Weinberg, A. E.**, Bennett, A., O'Reilly, J, & Basile, C. G. (2022). Ambitious and sustainable post-pandemic workplace design for teachers: A portrait of the Arizona teacher workforce. In M. Reimers (Ed.), *Primary and secondary education during COVID-19* (pp. 353-381). Springer Nature. <https://doi.org/10.1007/978-3-030-81500-4>

5. Sebald, A., Frederiksen, H., Decker, D., Roth, J., Fothergill, W., Cooner, D., Searle, J. J., Drager,

- J., Castor, J., Stevenson, C., Lewis, A., & **Weinberg, A. E.** (2018). Preparing educators for sustainability: One center's journey. In T. E. Hodges, A. C. Baum, *Handbook of research on field-based teacher education* (pp. 1-31). IGI Global. <https://doi.org/10.4018/978-1-5225-6249-8>
4. **Weinberg, A. E.** & Albright, L. (2011). Integrating biology and mathematics in high school classrooms. In Roberts, F. (Ed), *BioMath in the schools* (pp. 212-245). American Mathematical Society. ISBN: 978-0-8218-4295-9
 3. **Fritz (Weinberg), A. E.**, & Morgan, G. A. (2010). Sampling. In N. J. Salkind (Ed.), *Encyclopedia of research design* (vol. 3, pp. 1302-1305). SAGE. <https://dx.doi.org/10.4135/9781412961288>
 2. **Fritz (Weinberg), A. E.** (2008). Instructor's manual to accompany SPSS for intermediate statistics: Use and interpretation (3rd ed.). Erlbaum/Taylor & Francis Group.
 1. **Fritz (Weinberg), A. E.** (2008). Appendix B: Review of basic Statistics. In N. L. Leech, K. C. Barrett, & G. A. Morgan, *SPSS for intermediate statistics: Use and interpretation* (3rd ed., pp. 242-253). Erlbaum/Taylor & Francis. ISBN-13: 978-0805862676

E. Non-Refereed Publications

* Indicates graduate student status at time of submission

4. **Weinberg, A. E.**, & Boveda, M. (2021). *Intersectionally Conscious Collaboration - educator preparation version* (Version 2). figshare. <https://doi.org/10.6084/m9.figshare.17288243.v2>
3. Wyatt, L., Nailor, N., Madden, B., *Audrain, R. L., & **Weinberg, A. E.** (accepted) *ASU's Networked Cohorts: Forging enduring virtual communities among teachers amidst the COVID-19 Pandemic*. In Best Practices Clearinghouse: Supporting the Reopening and Continuing Operation of Schools, Colleges and Universities, and Early Childhood Education Providers. <future URL> Department of Education.
2. Boveda, M., & **Weinberg, A. E.** (2020). *Intersectionally conscious collaboration (ICC) protocol: Teacher educators version1*.figshare. Online resource. <https://doi.org/10.6084/m9.figshare.13252085.v4>
1. Cobb, R. B., Lipscomb, S., Wolgemuth, J., Schulte, T., Veliquette, A., Alwell, M., Batchelder, K., Bernard, R., Hernandez, P., Holmquist-Johnson, H., Orsi, R., Sample McMeeking, L., Wang, J., & **Weinberg, A. E.** (2013). *Improving post-high school outcomes for transition-age students with disabilities: An evidence review* (NCEE 2013-4011). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S.

V. PRESENTATIONS

A. Refereed Presentations

* Indicates graduate student status at time of submission ^Δ Indicates undergraduate student status at time of submission

47. *Diaz-Clark, E., Balgopal, M., **Weinberg, A. E.**(in review). *Centering Social Justice in Place-Based PBE*. National Association of Research on Science Teaching (NARST) Annual Conference, Chicago, IL.

46. *Jongewaard, R., **Weinberg, A. E.**, & Jordan, M. (in review). *Preservice Teachers' Visions for Action-Oriented Pedagogies* [Paper presentation]. American Education Research Association Annual Meeting, Chicago, IL.
45. Balgopal, M., Cocchino, A., **Weinberg, A. E.**, & Sample McMeeking, L. B., (August 2022). *A Model for Critical Pedagogy of Place*. Ecological Society of America (ESA) & Canadian Society for Ecology and Evolution (CSEE) Joint Meeting, Montreal, CA. [withdrawn]
44. Sebald, A., **Weinberg, A. E.**, Wakefield, W., Stevenson, C. A. (April 2022). *Co-teaching during student teaching: the role of university coaches and mentor teachers*. National Field Experience Conference, Greeley, CO.
- 43.*Pretti, E. D, **Weinberg, A. E.**, Merritt, E. M., & Wakefield, W. (April 2022). *Future teachers' misunderstandings about sustainability science: from common sense to factual misconceptions* [Conference session]. Annual Conference of the Comparative and International Education Society (CIES), Minneapolis, MN.
42. **Weinberg, A. E.** [^]Olakkengil, J. R., [^]Rodriguez Portals, L., [^]Valenzuela, E. C., *Ruiz, E. A., Balgopal, M. M., & Sample McMeeking, L. B. (April 2022). *Sweet lemonade from sour lemons: STEM teachers leveraging critical hope in times of crises* [Conference session]. Annual Conference of the Comparative and International Education Society (CIES), Minneapolis, MN.
41. **Weinberg, A. E.**, Cocchino, A., Sample McMeeking, L. B., & Balgopal, M. (March 2022). *Critical pedagogy of place to enhance ecological engagement activities: Expanding "place" beyond the biophysical*. National Association of Research on Science Teaching (NARST) Annual Conference, Vancouver, BC, Canada.
40. Balgopal, M., Wright, D., **Weinberg, A. E.**, Sample McMeeking, L. B., & Diaz-Clark, E. (March 2022). *How some early-career STEM teachers achieved agency during the COVID-19 pandemic*. National Association of Research on Science Teaching (NARST) Annual Conference, Vancouver, BC, Canada.
39. **Weinberg, A. E.**, *Jongewaard, R., & Jordan, M. (October 2021). *Action-oriented pedagogies for sustainability education*. The Scholarly Consortium for Innovative Psychology in Education Annual Conference, Virtual Conference.
38. *Gibbs, N. P., *Piepgrass, N. A., **Weinberg, A. E.**, Oakes, W. P., & Nagashima, J. T. (October 2021). *Dispositions for Principled Innovation: A scoping review of research on values-centered dispositions in teacher preparation*. [Paper presentation]. From Values Education to Principled Innovation, Mohamed I University, Oujda, Morocco, Virtual Conference.
37. *Schmidt, A., & **Weinberg, A. E.** (October 2021). *Teachers' perceptions of using outdoor spaces for learning during a global pandemic*. North American Association of Environmental Education (NAAEE) Annual Conference, Virtual Conference.
36. *Wright, D., Balgopal, M., & **Weinberg, A. E.**, Sample McMeeking, L. B. (April 2021). *Using an ecological model to study novice STEM teacher professional resilience during the COVID-19 pandemic*. National Association of Research on Science Teaching (NARST) Annual Conference, Virtual Conference.
35. **Weinberg, A. E.**, & Boveda, M. (April 2021). *Intersectionally Conscious Collaboration: Validation*

- of a protocol in a university-based teacher education program.* American Educational Research Association (AERA) Annual Conference, Virtual Conference.
34. *Wright, D., Balgopal, M., **Weinberg, A. E.**, & Sample McMeeking, L. B. (October 2020) *Instilling a Sense of Place.* Hands-on workshop presented at the Life Science Discovery Conference, Virtual Conference.
 33. Sebald, A., **Weinberg, A. E.**, & *Wakefield, W. (October 2020). *Toward conceptual clarity: A summary of the co-teaching literature.* National Conference on Coteaching, Virtual Conference.
 32. **Weinberg, A. E.**, & *Schmidt, A. (October 2020). *VCAR: An empowerment- and action-oriented methodology for participant-driven research.* North American Association of Environmental Education. Virtual Conference.
 31. *Wakefield, W., **Weinberg, A. E.**, & Merritt, E. M. (October 2020). *Embracing complexity when teaching about pollution in marine ecosystems.* North American Association of Environmental Education (NAAEE). Virtual Conference.
 30. Zuiker, S., Riske, A., Merritt, E., Marston, S., Wakefield, W., **Weinberg, A. E.**, & Thompson, M. (October 2020). *Gardening by design: Understanding and enhancing garden-based teaching in schools.* North American Association of Environmental Education, Tuscon, AZ.
 29. Sebald, A., Stevenson, C. A. **Weinberg, A. E.**, & *Wakefield, W. (April 2020). *Co-teaching during student teaching: The role of university coaches and mentor teachers.* National Field Experience Conference, Greeley, CO. (Conference Canceled)
 28. **Weinberg, A. E.**, Trott, C. D., *Wakefield, W. W., & Merritt, E. M. (April 2020). *"It challenges my beliefs and my comfortability": Transformative learning in a sustainability science course for preservice elementary teachers.* American Educational Research Association (AERA) Annual Conference, San Francisco, CA. (Conference Canceled)
 27. **Weinberg, A. E.**, & Trott, C. D. (March 2020). *University-community partnerships for transdisciplinary learning and collaborative sustainability action: From instructing 'what is' to imagining 'what if?'.* Comparative and International Education Society (CIES) Annual Conference, Miami, FL. (Converted to Virtual Conference)
 26. **Weinberg, A. E.**, & Boveda, M. (December 2019). *Intersectionally Conscious Collaboration: Validation of a protocol in a university-based teacher education program.* Arizona Educational Research Organization (AERO) Annual Conference, Tempe, AZ.
 25. **Weinberg, A. E.**, Balgopal, M., Sample McMeeking, L. B., & *Wright, D. (July 2019). *Bridging preservice and inservice teaching through a structured mentoring program.* Annual National Science Foundation (NSF) Noyce Summit, Washington DC.
 24. Sebald, A., **Weinberg, A. E.**, Pike, E., & Stevenson, C.A. (October 2018). *Toward a unifying framework for research in co-teaching in teacher education.* National Conference on Co-Teaching. St. Cloud, MN.
 23. Sample McMeeking, L. B, **Weinberg, A. E.**, & Trott, C. D. (October 2018). *Interdisciplinary pedagogical content knowledge: Identifying teacher perceptions about efficacy and integrating.* School Science and Mathematics Convention. Little Rock, AR.

22. **Weinberg, A. E.**, Sample McMeeking, L. B., & Trott, C. D. (October 2018). *ICMI: A theoretical and practical framework for integrating STEM*. School Science and Mathematics Convention. Little Rock, AR.
21. Sample McMeeking, L. B., & Trott, C. D & **Weinberg, A. E.** (June 2018). *Participatory Action Research Experiences for Undergraduates: Exploring Challenges and Opportunities of a Coordinated Approach*. Network of STEM Education Centers Conference. Columbus, OH.
20. *Wright, D., **Weinberg, A. E.**, Balgopal, M., & Sample McMeeking, L. B. (March 2018). *An examination of persistence in becoming a rural teacher "insider"*. National Association of Research on Science Teaching (NARST) Annual Conference, Atlanta, GA.
19. Sample McMeeking, L. B., **Weinberg, A. E.**, & *Trott, C. D. (November 2017). *Interdisciplinary science and mathematics education: A systematic review*. School Science and Mathematics Convention, Lexington, KY.
18. *Pike, E., Stevenson, C. A., & **Weinberg, A. E.**, & Sebald, A. (October 2017). *Co-teaching in teacher preparation: A study of approaches and evidence*. Colorado Association for Teacher Educators Annual Conference, Greeley, CO.
17. Sebald, A., **Weinberg, A. E.**, & *Pike, E. (October 2017). *Coteaching in teacher preparation: A scoping review of existing scholarship and research*. Coteaching in Clinical Practice Conference, Bloomington, MN.
16. *Wright, D., Balgopal, M., **Weinberg, A. E.**, & Sample McMeeking, L. B. (July 2017). *Teacher professional resilience through place-based mentoring*. Annual NSF Noyce Summit, Washington DC.
15. **Weinberg, A. E.**, Sample McMeeking, L. B., *Trott, C. D., & *Howe, J. (April 2017). *Interdisciplinary science and mathematics education: A systematic review and meta-analysis*. American Educational Research Association (AERA) Annual Conference, San Antonio, TX.
14. **Weinberg, A. E.**, & Stevenson, C. (April 2017) *A quasi-experimental examination of an innovative professional development school model*. AERA Annual Conference, San Antonio, TX.
13. *Long, S. A., & **Weinberg, A. E.**, (January 2017). *Mentoring of novice STEM teachers in high-needs schools*. Conference on Academic Research in Education (CARE), Las Vegas, NV.
12. **Weinberg, A. E.**, & Sample McMeeking, L. B. (April 2016) *Mathematics and science curriculum integration: An exploratory study of use and skill transfer*. AERA Annual Conference, Washington, DC.
11. Stevenson, C. A., & **Weinberg, A. E.** (April 2016). *The influence of an innovative professional development school model for early childhood education teacher preparation*. AERA Annual Conference, Washington, DC.
10. Sample McMeeking, L. B., **Weinberg, A. E.**, & *Boyd, K. J. (April 2015). *Participatory action research experiences for undergraduates*. AERA Annual Conference, Chicago, IL.
9. Stevenson, C. A., & **Weinberg, A. E.** (April 2014). *Mutually beneficial partnerships for essential learning in early childhood and elementary settings*, National Field Experience Conference, Greeley, CO.

8. **Weinberg, A. E.**, & Sample McMeeking, L. B. (April 2014). *Computational thinking: An investigation of the existing scholarship and research*. AERA Annual Conference, Philadelphia, PA.
7. Sample McMeeking, L. B., & **Weinberg, A. E.** (December 2013). *Participatory action research experiences for undergraduates*. American Geophysical Union Annual Conference, San Francisco, CA.
6. **Weinberg, A. E.**, Wolgemuth, J., & Albright, L. (April 2011). *In the short-term: Measuring the impact of brief math and science interventions on student motivation*. AERA Annual Conference, New Orleans, LA.
5. **Weinberg, A. E.**, & Albright, L. (April 2010). The integration of biology and mathematics using BioMath modules: Longer-term effects on teachers and students. AERA Annual Conference, Denver, CO.
4. **Weinberg, A. E.**, Basile, C. G., & Albright, L. (April 2009). *The meaning of summer science and math camp for middle school youth: A statewide evaluation*. AERA Annual Conference, San Diego, CA.
3. **Fritz (Weinberg), A. E.**, Morgan, G. A., Philofsky, A., Hepburn, S., & Fidler, D. (May 2008). Comparisons of parental perceptions of mastery motivation in children with autism, down syndrome, and developmental disabilities with those who are typically developing. Developmental Psychology Research Group Retreat, Estes Park, CO.
2. Cooner, D. D., Stevenson, C. A., & **Fritz (Weinberg), A. E.** (July 2007). *Mapping the journey toward the principalship: A mixed methods design*. Mixed Methods Annual Conference, Cambridge, England.
1. Gloeckner, G. W., **Fritz (Weinberg), A. E.**, A. E., & Stevenson, C. A. (July 2007). *Aha moments in learning mixed methods research: Ph.D. students and professor share moments of clarity*. Mixed Methods Annual Conference, Cambridge, England.

B. Invited Presentations

10. **Weinberg, A. E.**, Audrain, R. L. (October 2021) *Next education workforce: Teacher practices and beliefs*. Mary Lou Fulton Teachers College Leadership Circle.
9. **Weinberg, A. E.** (December 2020) *Sustainability Education*. Invited guest expert speaker at the "Exploring a Potential Consensus Study on Education for Living in a Changing Climate". Sponsored by the National Academies of Sciences Education, and Medicine's Board on Science Education.
8. **Weinberg, A. E.**, Boveda, M., & Tesoriero, G. (November 2020). *Disrupting ableism, leveraging place-based learning and ecological caring, and centering racial justice*. Panel at the Advancing Coherent and Equitable Systems of Science Education (ACESSE) 50+ Virtual Network Meeting, University of Washington.
7. Boveda, M., & **Weinberg, A. E.** (November 2020). *Setting your trajectory*. Faculty Advancement Session. ASU, Tempe, AZ. [presenters listed alphabetically]
6. Gee, E., Harris, K., Mathur, S., & **Weinberg, A. E.** (October 2019) *Recruitment, advising, &*

mentoring doctoral students. Faculty Advancement Session. ASU, Tempe, AZ. [presenters listed alphabetically]

5. **Weinberg, A. E.** (September 2018) *A scoping review of coteaching in teacher education*. ASU MLFTC Faculty Research Spotlight.
4. Anderson, K., Kim, J., & **Fritz (Weinberg), A. E.**, (March 2018) *How'd they do that: Advice from early career colleagues with grant writing experience*. Junior Faculty Development Workshop. ASU, Tempe, AZ. [presenters listed alphabetically]
3. Cooner, D. D., Drager, J, Searle, J., & **Fritz (Weinberg), A. E.** (November 2014). *Developing highly effective teacher collaborators by means of innovative coteaching training and practice throughout teacher preparation at Colorado State University*. Colorado's Educator Preparation Faculty Summit, Denver, CO.
2. Stevenson, C. A. & **Fritz (Weinberg), A. E.** (April 2014). *Mutually beneficial partnerships for essential learning in early childhood and elementary settings*. National Field Experience Conference, Greeley, CO.
1. Balgopal, M., Butler, C., Stevenson, C. A., & **Fritz (Weinberg), A. E.** (December 2013). *K-12 STEM teacher education at Colorado State University*. University of Northern Colorado's Colorado STEM Teacher Symposium.

VI. SPONSORED PROJECTS

A. Pending (month and year indicates date of submission)

July 2022. Reading to Reason in Science (RtRiS): Teaching scientific processes through reading-to-learn in undergraduate biology lecture-based courses. Senior Personnel: **A. E. Weinberg**, PI: M. Balgopal, co-PI: P. Ode. National Science Foundation Solicitation 21-579: Improving Undergraduate STEM Education (IUSE). \$299,493 total requested. \$7,500 consultant fee for external evaluation.

B. Externally Funded Grants: Ongoing (month and year indicate start and end dates)

3. July 2020 – June 2022 (with no cost extension). *Supplemental Research: Studying novice teachers' adaptive capacity using the Panarchy model*. PI: **A. E. Weinberg**, Co-PI: M. Balgopal, L. Sample McMeeking, D. Wright, Colorado State University. National Science Foundation. \$158,000 total requested, \$18,009 ASU. 100% Allocation
2. October 2018 – September 2022. *Reimagining the Education Workforce for the 21st Century: Preparing Teachers through Personalized Learning Modules and Diversified Clinical Experiences (REW)*, PI: C. Basile; Co-PIs: B. Maddin; N. L. Thompson, **A. E. Weinberg**, T. Foulger. US Department of Education CFDA Number 84.336S, Teacher Quality Partnership Grant Program. \$4,979,769 awarded. 33% Allocation
1. January 2016 – December 2022 (with no cost extension). *CSU Noyce Phase II: Empowering Scholars and STEM Teachers*, PI: M. Balgopal, Department of Biology, CSU; Co-PIs: **A. E. Weinberg**, School of Education, CSU (at MLFTC, ASU since August 2017); P. Kennedy, Department of Mathematics, CSU (replaced by L. B. Sample-McMeeking in 2018); J. Nerger, College of Natural

Sciences, CSU; T. Siller, Department of Engineering, CSU. NSF Award: 1540794, \$799,487 total budget, ASU subaward \$0.

C. Externally Funded Grants: Concluded (month and year indicate start dates)

9. July 2015 – June 2019. *Mathematical and Computational Methods for Planning for a Sustainable Future (PS-Future)*, PI: M. Cozzens, DIMACS, Rutgers University, Co-PIs: T. Carpenter & R. Jordan, DIMACS, Rutgers University, Evaluation Research Team: L. B. Sample McMeeking, CSU, & **A. E. Weinberg**, ASU. NSF Solicitation 15-588: Discovery Research K-12 (DRK-12) Program. NSF Award: 1503414, \$1,469,396 total budget., ASU subaward \$33,099. 100% Allocation.
8. July 2017. *2nd Annual Workshop on PK-12 Education for the Planet Earth of Tomorrow (Theme: STEM Equity)*, PI/Organizer: **A. E. Weinberg**, School of Education, CSU; Co-Organizer: J. Howe, CSU School of Education & Poudre School District Administrator. Supported by the NSF-funded DIMACS Special Program: Mathematics of Planet Earth 2013+ at Rutgers University, \$12,000 total contract for direct participant support.
7. January 2011-December 2016. *Colorado State University Noyce Scholarship Program*. PI: **A. E. Weinberg**; Co-PIs: C. A. Stevenson, School of Education, CSU; P. Kennedy, Department of Mathematics, CSU; J. Nerger, College of Natural Sciences, CSU; T. Siller, Department of Engineering, CSU. NSF Solicitation: 10-514: Robert Noyce Teacher Scholarship Program. NSF Award: 1035298, \$1,200,000 total for 5 years.
6. January 2016. *Workshop on PK-12 Education for the Planet Earth of Tomorrow (Theme: Interdisciplinary Approaches to STEM Education)*, PI/Organizer: **A. E. Weinberg**, School of Education, CSU; Co-PI/Organizer: L. Sample McMeeking, CSU STEM Center. Supported by the NSF-funded DIMACS Special Program: Mathematics of Planet Earth 2013+ at Rutgers University, \$24,000 total contract for direct participant support.
5. February 2015. *Paradigm Shift: Revolutionizing our Understanding of Antimicrobial Resistance Ecology through Whole Genome Analysis of Microbial Communities*, PI: P. Morley, Clinical Sciences, CSU; Co-PIs: H. Yang, Animal Science, CSU; D. Woerner, Animal Science, CSU; D. C. Van Metre, Clinical Sciences, CSU; M. Thomas, Animal Science, CSU; J. Ruiz, Computer Science, CSU; S. J. Reynolds, Environmental and Occupational Health, University of Colorado Denver; C. S. McConnel, Clinical Sciences, CSU; R. J. Delmore, Animal Science, CSU; M. L. Bunning, Food Science & Human Nutrition, CSU; C. Boucher, Computer Science, CSU; K. Belk, Animal Science, CSU; **A. E. Weinberg**, School of Education, CSU; L. B. Sample McMeeking, STEM Center, CSU. USDA-NIFA GRANT: 119587, \$2,249,609 total budget.
4. October 2013. *Expanding Literacy Strategies for Teacher Effectiveness*, PI: C. A. Stevenson, School of Teacher Education & Principal Preparation (STEPP), CSU; Co-PIs: **A. E. Weinberg**, M. Balgopal, D. Cooner, School of Education, Colorado State University, Colorado Department of Higher Education CFDA Number: 84.367, Improving Teacher Quality Grant 2013-14, \$158,396 total budget.
3. September 2013. *Motivating First Year Calculus with Robotics*, PI: J. Cantrella, Mathematics Department, University of Georgia. Evaluation team: **A. E. Weinberg**; M. Cozzens, DIMACS, Rutgers University. NSF Solicitation: 12-527, Award # 124550, Transforming Undergraduate Education in Science, Technology, Engineering, and Mathematics (TUES) Program, \$10,000 total

contract.

2. June 2013. *Mathematics of Planet Earth (MPE 2013+)*, PI: F. Roberts, Center for Discrete Mathematics & Theoretical Computer Science (DIMACS), Rutgers University; Co-PI: E. Fiorini, DIMACS, Rutgers University. Evaluation Team: **A. E. Weinberg**; M. Cozzens, DIMACS, Rutgers University, \$15,000 total contract.
1. September 2012. *Mathematical and Computational Methods for Planning for a Sustainable Future (PS-Future)*, PI: M. Cozzens, DIMACS, Rutgers University, Co-PIs: T. Carpenter, DIMACS, Rutgers University, CSU Subaward recipient: **A. E. Weinberg**, NSF Solicitation 11-588: Discovery Research K-12 (DRK-12) Program, \$425,773 total budget.

D. Internally Funded Grants: Ongoing (month and year indicate start and end dates)

2. May 2022. *Education, Sustainability, and Global Futures*. PI: **A. E. Weinberg**, Co-PI: I. Silova, G. Fischman. ASU MLFTC Learning Futures Collaboratives Seed Grant Program. \$13,471 awarded.
1. March 2022. *Positioning K-8 Students for Transformative Sustainability Learning: Teachers' Action-Oriented Pedagogies*. Co-PI: **A. E. Weinberg**, Co-PI: M. E. Jordan. ASU Institute for Social Science Research Seed Grant Program. \$7,000 awarded.

E. Internally Funded Grants: Concluded (month and year indicate start and end dates)

9. August 2021. *Studying STEM Teacher Development Using the Panarchy model*. PI: **A. E. Weinberg**, CoPIs: *E. A. Ruiz, L. Rodriguez Portales, E. Valenzuela, J. Olakkengil. Office of Scholarship & Innovation 2019 Internal Research Grant Program, Mary Lou Fulton Teachers College. \$310 awarded.
8. November 2020. *Exploring Educators' Perceptions of Next Education Workforce Principles*. PI: **A. E. Weinberg**, CoPIs: *R. L. Audrain & *A. Schmidt. ASU. Office of Scholarship & Innovation 2019 Internal Research Grant Program, Mary Lou Fulton Teachers College. \$310 awarded.
7. March 2020. *Multiple Perspectives on Energy Sources: Student Voices on Flipgrid*, PIs: E. Merritt, L. Archambault, **A. E. Weinberg**, ASU; Office of Scholarship & Innovation 2019 Internal Research Grant Program, Mary Lou Fulton Teachers College. \$480 awarded.
6. September 2019. *Teacher Candidate Affordances and Perceptions of Efficacy in Collectively-Taught Elementary and Typical Student Teaching Settings*, PIs: **A. E. Weinberg**, M. Boveda, ASU. Office of Scholarship & Innovation 2019 Internal Research Grant Program, Mary Lou Fulton Teachers College. \$600 awarded.
5. June 2019. *Protocols for Coteaching and Collaborative Practices*. PIs: **A. E. Weinberg**, M. Boveda. Faculty Fund for Teaching Excellence and Student Success, Arizona State University, \$10,000 awarded.
4. June 2018 - May 2019. *Roles and Self-efficacy of Teachers and Education Professionals in Collectively-Taught Elementary Settings*, PI: **A. E. Weinberg**, ASU. ASU Institute for Social Science Research Seed Grant Program. \$7,920.50 awarded.
3. May 2018 - May 2019. *Teacher Candidate Affordances and Perceptions of Efficacy in Collectively Taught Elementary and Typical Student Teaching Settings*, PI: **A. E. Weinberg**, ASU; Co-PI: Brent Maddin, ASU. Office of Scholarship & Innovation 2017-18 Internal Research Grant Program, Mary

Lou Fulton Teachers College. \$6,080 awarded.

2. December 2016. *EPPI-Reviewer Software Subscription*. PI: **A. E. Weinberg**, School of Education, CSU. School of Education Mini-Grant Award. \$1,000 total.
1. December 2016. *A Long-Term Quasi-Experimental Study of Pedagogies of Practice within a Professional Development School Partnership*. PIs: **A. E. Weinberg** & C. A. Stevenson, School of Education, CSU. School of Education Mini-Grant Award. \$21,000 total.

F. Unfunded Grants

December 2021. *Intersectionally Conscious Collaboration for Educator Preparation*. ASU PI: **A. E. Weinberg**, Co-PI: Mildred Boveda, Pennsylvania State University. AERA Division K Anti-Racist Teaching and Teacher Education Seed Grant Program. \$14,858 total requested.

October 2020 *Teacher Professional Development for Embedding Computational Thinking in 3rd-8th Grade Classes (EPDCT)* PI: M. Cozzens, DIMACS, Rutgers University; Co-PIs **A. E. Weinberg**, ASU; Tamara Carpenter, DIMACS, Rutgers University. National Science Foundation 20-572, Discovery Research PreK-12. Total Requested \$2,258,882; ASU Subaward \$525,525.

August 2020 *Global Teachers Survey on Education for Sustainable Development (ESD) and Global Citizenship Education (GCED)*. PI: I. Silova; Co-PIs: G. Fischman; D. Schugurensky; **A. E. Weinberg**; A. Nielsen, ASU. UN: Education, Scientific, and Cultural Organization (UNESCO). Total requested: \$298,330.

July 2020. *Project InDUCTEd (Intersectionally Diverse Urban Collaborative Teacher Education)*. PI: Amber Benedict, ASU, Co-PI: **A. E. Weinberg**; M. Boveda, N. Thompson, V. Theison-Homer, School of Social Transformation; A. Kurz, T. Denny School for Social Dynamics. Department of Education. \$2,199,481 total requested.

March 2020. *Collaborative Research: RAPID: Crisis-driven remote learning*. PI: Margaret Cozzens, Rutgers University, Co-PI: **A. E. Weinberg**, National Science Foundation. \$195,000 total requested, \$45,795 ASU.

November 2019. *Intersectionally Conscious Collaboration in Education*. PI: **A. E. Weinberg**, Co-PI: M. Boveda, Gates (Bill and Melinda) Foundation. \$100,000 requested.

September 2019. *Curriculum Development and Pedagogical Practices: Establishing Evidence of Validity for the Intersectionally Conscious Collaboration Protocol*. Co-PIs: **A. E. Weinberg** & M. Boveda, ASU Institute for Social Science Research Seed Grant Program. \$7,947.63 requested.

December 2018. *Research and Discovery: Collaborative Teaching Teams*, PI: B. Maddin, MLFTC, ASU; Co-PI: **A. E. Weinberg**. Bill & Melinda Gates Foundation solicited proposal. \$153,524 total requested.

November 2018. *Ethical Collaboration for Enhancing the Intersectional Competence of Preservice Teachers*, PI: M. Boveda, MLFTC, ASU; Co-PI: **A. E. Weinberg**. University of Illinois-Chicago: The Center for Education & Ethics, Research Grants Program. \$40,000 total requested.

August 2018. *High School Interdisciplinary Citizen Science*, PI: M. Cozzens, Center for Discrete Mathematics & Theoretical Computer Science (DIMACS), Rutgers University; Co-PIs: T. Carpenter, H. Salzman & R. Jordan, DIMACS, Rutgers University. Lead Researcher: **A. E. Weinberg**, ASU. NSF

Solicitation Number: 17-565, Innovative Technology Experiences for Students and Teachers (ITEST) Program. \$847,000 total requested, \$76,506 for 3-year ASU subcontract.

August 2017. *Citizen Science in Schools*, PI: M. Cozzens, Center for Discrete Mathematics & Theoretical Computer Science (DIMACS), Rutgers University; Co-PI: E. Fiorini, DIMACS, Rutgers University. Evaluation Team: **A. E. Weinberg**, ASU. NSF Solicitation Number: 17-565, Innovative Technology Experiences for Students and Teachers (ITEST) Program. \$847,000 total requested, \$75,010 for 3-year ASU subcontract.

March 2017. *GeoSense for Geoscience*, Collaborative Proposal Submission. Primary PI: Teresa Eastburn, University Corporation for Atmospheric Research (UCAR); ASU PI: **A. E. Weinberg**, Mary Lou Fulton Teachers College, ASU, Co-PI: Keith Maull, UCAR; NSF Solicitation 17-535, DRL STEM + Computing (STEM +C). \$1,522,239 total requested. \$125,099 total 3-year ASU.

February 2017. *CS for All in Middle School Research Practitioner Partnership (CSMRPP)*, PI: M. Cozzens, Mathematics Education, Rutgers University; Co-PIs: **A. E. Weinberg**, ASU, P. Kehle, Mathematics Education, Hobart & William Smith Colleges. NSF Solicitation 17-525, Computer Science for All: RPP. \$997,927 total requested. \$194,999 total 3-year ASU.

August 2016. *Citizen Science in Schools*, PI: M. Cozzens, Center for Discrete Mathematics & Theoretical Computer Science (DIMACS), Rutgers University; Co-PI: E. Fiorini, DIMACS, Rutgers University. Evaluation Team: **A. E. Weinberg**, Colorado State University. NSF Solicitation Number: 16-599, Innovative Technology Experiences for Students and Teachers (ITEST) Program. \$75,000 total for 3-year subcontract.

July 2016. *Spatial and Computational Thinking in Atmospheric Science*, PI: T. Ellis, Mallison Institution for Science Education and the Department of Geography, Western Michigan University. Evaluators: **A. E. Weinberg**, School of Education, Colorado State University; L. B. Sample McMeeking, CSU STEM Center. NSF Solicitation 15-555, CAREER Program. \$6,000 total 3-year contract.

August 2016. *USDA Impact of Antimicrobial-Free Rearing on the Resistome and Microbiome of Animals & Broilers, Meat & Poultry Products, and Human Consumers*. Co-Lead Project Directors: P. S. Morley, Clinical Sciences, CSU; K. E. Belk, Animal Sciences, CSU; Co-PIs: **A. E. Weinberg**, School of Education; Z. Abdo, Microbiology, Immunology, and Pathology, CSU; C. Boucher, Computer Science, CSU; T. W. Campbell, Clinical Sciences, CSU; J. Martin, Animal Sciences, CSU, J. Metcalf, CSU; J. Ruiz, Computer Science, CSU; and D. Woerner, Animal Sciences, CSU. Proposal submitted to the USDA-NIFA (Program Area Priority Code - A4171: Effective Mitigation Strategies for Antimicrobial Resistance). \$1,200,000 total budget.

May 2015. *NRT-IGE: An Interdisciplinary Participatory Action Research Approach to Graduate Science Education*, PI: Dale Woerner, Department of Animal Science, Colorado State University; Co-PIs: **A. E. Weinberg**, School of Education, CSU; Laura Sample McMeeking, STEM Center, CSU; Kristina Peterson, Lowlander Center; NSF Proposal: 1545352, 2016-2029, \$495,542 total budget.

May 2015. *Determining Usage and Consumer Perception of Antibiotics in Animals: A Necessary Tool for Effective Mitigation of Antimicrobial Resistance*, PI: Jennifer Martin, Department of Animal Science, Colorado State University; Co-PIs: **A. E. Weinberg**, School of Education, CSU; Keith Belk, Department of Animal Science, CSU; Paul Morley, Clinical Sciences, CSU; Dale Woerner, Department of Animal Science, CSU; Hua Yang, Department of Animal Science, CSU; Lori Kogan, Clinical

Sciences, CSU; Craig McConnel, Clinical Sciences, CSU; USDA-NIFA: AFRI CFDA # 10.310, GRANT11906625, \$962,319 total budget.

May 2015. *Integration and Systems Approaches for Predictive Biology and Predictive Decision Making*. Co-PIs: Paul Morley, Keith Belk, Hua Yang, Jennifer Martin, Robert Delmore, Dale Woerner, Milton Thomas, M. Enns, S. Speidel, S. Coleman, Christina Boucher, Jamie Ruiz, Z. Abdo, Z. **A. E. Weinberg**, Laura Sample McMeeking. CSU-VPR Catalyst Funding: Emerging Innovations Facility. Proposal Number: EVI.VPR.2015. \$140,000 total budget.

December 2014. *Center for Antimicrobial Resistance & Microbial Ecology in Agriculture*. Co-PIs: Paul Morley, Clinical Sciences, CSU; Keith Belk, Animal Sciences, CSU; Key Personnel (among others): **A. E. Weinberg**. National Science Foundation/Science and Technology Center (STC): Integrative Partnerships. Proposal Number: 1522428, 2016-2020. \$24 million total budget.

December 2013. *Supporting Science Professional Development Through Online Communities*, PI: Laura Sample McMeeking, Co-PIs: **A. E. Weinberg**, M. Balgopal, School of Education, Colorado State University; Scott Denning, Department of Atmospheric Science, Colorado State University. NSF Solicitation 13-601: Discovery Research K-12 (DRK-12) Program. \$449,943 total budget.

March 2013. *An Observation Protocol for Assessing Children's Early Science Learning in Play-Based Settings*. PI: Cerissa Stevenson, Co-PI: **A. E. Weinberg**. Colorado State University's CHHS Mini-grant. \$18,728 total budget.

December 2012. *SEE-First*. PI: Meena Balgopal, School of Education, Colorado State University; Co-PI: **A. E. Weinberg**, L. Sample McMeeking, STEM Center, Colorado State University; S. Denning, Center for Multiscale Modeling of Atmospheric Processes (CMMAP), Colorado State University. NSF Solicitation 11-588: Discovery Research K-12 (DRK-12) Program.

VII. AWARDS & RECOGNITION

2021 Outstanding Faculty Mentor Award Nominee Nominated by graduate students for ASU's Graduate College's mentoring award for my dedication to the craft of mentoring and commitment to students.

2020 Excellence in Integrating Teaching and Scholarship. Awarded by ASU's Mary Lou Fulton Teachers College's leadership and faculty. Annually, MLFTC honors one faculty member for their commitment to student success and working together to change the world. Awardees must have demonstrated that they explicitly link theory with practice, conduct use-inspired research, maintains a sustained research agenda about teaching, engage in cutting-edge teaching practice, and must have a reputation for being a model teacher and mentor.

2019 Arizona Educational Research Organization (AERO) Early Career Research Award. Recognized as a promising early career researcher.

2019 ASU Catalyst Award. Andrea Weinberg & Mildred Boveda were nominated for this award, which recognizes outstanding contributions in fostering and promoting diversity and inclusion at ASU and beyond.

School Science and Mathematics Journal “Top Downloaded Article” Award (2017-2018). Weinberg & Sample McMeeking (2017) recognized as a top 20 most read paper in the *School Science and Mathematics* journal.

2018, 2019 William T. Grant Scholars Program Nominee. Nominated to submit a proposal by ASU’s Mary Lou Fulton Teachers College. Only one faculty member from each college is able to participate each year.

2017 Graduate Advising and Mentorship Award. Nominated for the CSU Graduate Student Council’s *Graduate Advising and Mentorship Award*.

2011-12 NSF CADRE Fellow. The competitive CADRE Fellows program is a capacity-building experience for early career researchers and developers. Fellows learn about DRK-12 research beyond their projects, network with researchers and developers from across the country, and gain insights into the NSF’s perspective on successful and effective research and development.

2009 National Center for Educational Statistics (NCES) International Databases Training Seminar. Awarded support from the NCES to attend a 3-day training program for International Student Assessment (PISA), the Trends in International Mathematics and Science Study (TIMSS), and the Progress in International Reading Literacy Study (PIRLS).

2009 Certified What Works Clearinghouse (WWC) Reviewer. Attended multi-day training, passed the WWC certification test, and have successfully published using WWC evidence standards and procedures.

VIII. UNIVERSITY TEACHING, COURSE DEVELOPMENT, & ADVISING

A. University Teaching

Note: *Courses Taught at Arizona State University (Ψ) & Colorado State University (◇)*

Course Title	Format (face-to-face, online, hybrid)	Credit Hours	# Semesters Taught (as of Sp22)
Graduate Courses (Ph.D.)			
Ψ DCI 691: Introduction to Teacher Education Research and Practice	f-t-f	3	2
Ψ EPA 752: Research Design	f-t-f	3	1
Ψ DCI 792: Research	f-t-f	3	2
Ψ TEL 706: Introduction to Doctoral Studies	H	3	1
◇ Introduction to Research Methods	o	3	3
◇ Program Evaluation	f-t-f	3	2
◇ Independent Study	f-t-f	3	1
Graduate Courses (M.Ed. & M.S.)			
Ψ LSE 599: Thesis	f-t-f	3	4
Ψ DCI 792: Research	f-t-f	3	2
◇ Action Research	f-t-f, o, h	3	6
◇ Curriculum Development	o	3	3

◇ Contexts of Schooling	f-t-f	3	1
◇ Teacher Preparation Practicum Supervision	f-t-f	3	3
◇ Practicum Seminar	f-t-f	1	4
◇ Student Teaching Supervision	f-t-f	variable	3
◇ Student Teaching Seminar	f-t-f	1	3
◇ Teacher Preparation Capstone Seminar	f-t-f	1	3
Undergraduate Courses			
Ψ MTE 280: Mathematics for Elementary Teachers	f-t-f	3	1
Ψ SPE 416: Quality Practices in Collaborative Classrooms	f-t-f	3	1
Ψ SCN 400: Sustainability Science for Elementary Teachers	h	3	5
Ψ BLE 408: SEI for Linguistically Diverse Students/ SPE 317: Special Education for Culturally and Linguistically Diverse Children and Youth	h	3	1
Ψ EDP 310: Educational Psychology (Learning in Context)	f-t-f	1	1
Ψ SOS 492: Honors Directed Study	f-t-f	3	1
◇ Literacy and The Learner	f-t-f	2	3
◇ Differentiated Instruction	f-t-f	3	1

B. Curriculum Development

2021	TEL 706: Introduction to Doctoral Studies - Modified an 11-week online course to a 7-week hybrid course.
2021	SCN400: <i>Sustainability Science for Elementary Teachers</i> - Updated course content
2020	SCN 202: <i>Sustainability Science Literacy for Engaged Global Citizens</i> - Designed a new course that introduces relevant science concepts and issues essential for sustainability literacy (e.g., water, energy, climate). Developed both hybrid and online versions of the course. Obtained SG (general science) designation for this course, to be offered beginning Fall 2022.
2019	EDP310: <i>Learning in Context</i> - Collaborated with Drs. Steve Zuiker and Michelle Jordan to design a service-learning course that utilizes place-based pedagogies within garden spaces and simultaneously support school and community gardens.
2019	BLE408: <i>SEI for Linguistically Diverse Students</i> - Collaborated with Dr. Boveda to Convert from face-to-face to hybrid course format. Six other instructors used the course.
2019	SCN400: <i>Sustainability Science for Elementary Teachers</i> - Redesigned to align with teacher education program aims and concurrent courses
2021	DCI691: <i>Teacher Education Research and Practice</i> : Independently developed curriculum and taught course

- 2012-2016 *Action Research* - Independently developed curriculum and created 3 versions course: face-to-face, hybrid, online. These courses are still in use at Colorado State University.
- 2010 *Program Evaluation* - Independently designed and taught face-to-face and online courses
- 2006-2007 *Literacy and the Learner* - Literacy course for content area secondary teachers (e.g., mathematics, science). Collaborated to design and implement a complex 3-part course: lecture, recitation, lab. The weekly lectures occurred on campus. The recitation and labs were field-based, embedded in 2 local schools, and co-taught by practicing teachers.

C. Student Advising and Committees

ASU Mary Lou Fulton Teachers College PhD Co-Chair

NOTE: Assistant professors in MLFTC in must co-chair with an associate or full professor

Wendy Wakefield (Graduated Spring 2021, Co-Chair with Dr. Michelle Jordan). Dissertation Title: *RESET-ting professional development: Fostering mid-career k-8 teachers' identities and actions as culturally responsive science and engineering educators*

Note: Dr. Wakefield began a tenure-track position in Fall 2021.

Elizabeth Ruiz (Anticipated Spring 2024, Co-Chair with Dr. Sarup Mathur). Dissertation Title: *TBD*

Grants Received: 2

022 AERA Division H (Research, Evaluation, & Assessment in Schools) *Graduate Student Research Award* (\$1,500)

Awards Received:

2022 *Division for Research Doctoral Student Scholars (DRDSS)*, Council for Exceptional Children

2021 *Knowledge Mobilization Spotlight Award*, ASU MLFTC

2021 *Robert B. Rutherford Scholarship Recipient*, Teacher Educators for Children with Behavior Disorders (TECBD)

2020 *Robert B. Rutherford Scholarship Recipient*, TECBD

Rebekah Jongewaard (Anticipated Spring 2025, Co-Chair with Dr. Michelle Jordan). Dissertation Title: *TBD*

ASU Mary Lou Fulton Teachers College PhD Committee Member

Esther DeLago Pretti (Graduated Spring 2022)

ASU Mary Lou Fulton Teachers College EdD Chair

Jeanette Calo (Fall 2022)

Emily Greene (Fall 2022)

Denise Kennedy (Anticipated Fall 2023)

Michael Little-Crow (Anticipated Spring 2023)

Jason Whetten (Fall 2022)

Awards Received: 2021 *Institute of Social Sciences Graduate Research* "Honorable Mention"
(\$800 awarded)

ASU Mary Lou Fulton Teachers College EdD Committee Member

Julie Case (Spring 2022)

Danica Hendrickson (Fall 2022)

ASU Mary Lou Fulton Teachers College Master's Chair

Sarah Suloff (Graduated Spring 2021). Thesis Title: *Nature journaling: A mediating activity for scientific practices*

ASU Mary Lou Fulton Teachers College Master's Committee Member

Isis Howard (Anticipated Spring 2023). Thesis Title: *Identity, community, and sustainability: A three-phase approach to integrating critical pedagogies and agency to foster holistic identity development*

ASU Barrett Honors College Honors Advisor

Eliana Valenzuela (Anticipated Spring 2023) *STEM teachers leveraging critical hope in times of crises* (with Joseph Olakkengil)

Joseph Olakkengil (Anticipated Spring 2023) *STEM teachers leveraging critical hope in times of crises* (with Eliana Valenzuela)

Ashley Dussault (Graduated Spring 2021). Honors Thesis Title: *integrating systems thinking concepts into an elementary school gardening program: Analyzing sustainability education*

Stephanie Bai (Graduated Spring 2020). Honors Project: *Urban Biodiversity and Schoolyard Habitats*

ASU Barrett Honors Fellows 2020-2021: Research Experience

Eliana Valenzuela (Biology)

Joseph Olakkengil (Computer Science)

Limary Rodriguez Portales (Biology)

ASU Barrett Honors College Second Reader

Katherine (Kate) Klebosky (Spring 2017). Thesis/Creative Project Title: *The relationship between flexible seating outcomes and Arizona teachers' attitudes towards flexible seating*

CSU School of Education Ph.D. Committee Member

Raynie Wood (Spring 2017). Dissertation Title: *Establishment of an internationally based offshore branch campus: An Australian case study.*

Neely Clapp (Spring 2017). Dissertation Title: *Teachers' and researchers' beliefs of learning and the use of learning progressions.*

CSU Educational Sciences M.Ed. Advisor or Committee Member

Spring 2017: Aimee Burnett, Macey Downey, Samantha (Sammy) Feliz, Mary Fowler, Taylor French, Rebecca (Becky) Fuller, Alexandra (Lexi) Pollock, Savannah Pullin, Alexandra (Alex) Schneider, Candice Silva, Rebecca Trehus

Spring 2016: Haley Fletcher, Jessica Guidotti, Kelsey Jenkins, Nicole Kiesel, Gabrielle (Gabby) Mallette, Amber Pennell, Alison Schnitzler, Jillian (Jill) Titcomb, Madison Zelias

Spring 2015: Alison Ambrogio, Alicia Bermudez, Rachel Bruggen, Katelyn (Katy) Cunneen, Morgan Dorsey, Nichole Fritzche, Deandra Gardner, Nichole Guidotti, Johannes Paraan, Michelle Vandewoestyne

Spring 2014: Bryannita (Bry) Aiken, Mary Butterfield, Rachel Chapin, Leah Hittesdorf, Alison Horsch, Millicent Lippert, Tiffany Pieper, Gabriella (Gabbi) Polen, Rachel Wilson

Dual Major, Biological Science & Sociology Undergraduate Honors Advisor

Spring 2014: Emily Hall

Social Work M.Ed. Outside Committee Member

Spring 2016: Christopher Barker, Evie (Evan) Decker, Sierra Weast

IX. SERVICE

A. International and National Leadership

Committee Membership

2022-2025	Co-chair, Division K (Teaching and Teacher Education) Section 3 (Teachers' Lives, Identities, and Journeys), American Educational Research Association
2020-2022	Finance Committee, School Science and Mathematics Association
2021-Present	<i>Disrupting ableism, leveraging place-based learning and ecological caring, and centering racial justice</i> committee of the Advancing Coherent and Equitable Systems of Science Education (ACESSE) 50+ Virtual Network Meeting, University of Washington.

Editorial Boards

2020 - Present	Editorial Review Board, <i>The Teacher Educator</i>
2019 - Present	Editorial Review Board, <i>Sustainability</i>

Additional Editorial Commitments

2022	Occasional Reviewer, <i>The Lancet Planetary Health</i>
2021 - Present	Occasional Reviewer, <i>Frontiers in Communication</i>
2020 - Present	Occasional Reviewer, <i>Journal of Environmental Education</i>
2020 - Present	Occasional Reviewer, <i>Teaching and Teacher Education</i>
2018 - Present	Occasional Reviewer, <i>Science Education</i>
2018	Reviewer, <i>Visual Impairment and Deafblind Education Quarterly</i>
2017 - Present	Occasional Reviewer, <i>Sustainability</i>
2016 - Present	Occasional Reviewer, <i>School Science and Mathematics</i>
2014 - 2015	Reviewer, <i>Networks: The Online Journal for Teacher Research</i>
2011	Occasional Reviewer, <i>The Journal of Geoscience Education</i>

Book Review

Corwin Press (2008) *Five steps in statistics: A consumer's guide to inferential decision making.*

B. Advisory Boards & Consultancies

Supporting Teacher Scholars through Education and Professional Development in Place-Based Education; National Science Foundation's Robert Noyce Teaching Scholarships, Track 1: Scholarships and Stipends program; NSF Award 1950290. Role: Advisory Board Leader, \$500 per year, \$1500 travel per year, 5 years

Noyce Scholar Retention in Racially and Culturally Non-dominant Communities: Studying the Relationship between Partnerships and Persistence in the Teaching Profession; National Science Foundation's Robert Noyce Teaching Scholarships, Track 4: Research; NSF Award 2050608. Role: Advisory Board Member.

C. Professional Development for Educators

2018 - present *Sense of Place* Professional Development Series for Secondary STEM Teachers. This series for preservice and inservice STEM teachers is co-designed with Drs. Balgopal and Sample-McMeeking at Colorado State University. The focus is integrating STEM education and social justice in secondary education STEM settings. Dates and topics are as follows:

March 12, 2020	<i>Climate Modeling & Impacts on Diverse Communities</i>
Nov. 13, 2019	<i>CRISPR & Bioethics</i>
Oct. 1, 2019	<i>Organizational Routines & Classroom Diversity</i>
April 22, 2019	<i>Pollinator Biology & Communicating Across Diverse Audiences</i>
Feb. 25, 2019	<i>Community Nutrition & Formal Learning Assessments</i>
Nov. 14, 2018	<i>Public Health & Student Accommodations</i>

- Oct. 4, 2018 *Graduate Studies for STEM Teachers*
- Oct. 2, 2018 *Engineering Design & Strengths-Based Models*
- April 17, 2018 *Watershed Science & Human Lives*
- Feb. 21, 2018 *Citizen Science & Relationships with Diverse Stakeholders*
- 2019 - present *Classroom, school, community, and beyond: Student-led action for change.*
Professional Development Series for Elementary teachers with the aim to integrate student-led action for lasting impact toward more sustainable classrooms, schools, and communities. This ongoing participatory PD series for eight inservice teachers occurred twice monthly in person from July 2019-March 2020, virtually March 2020-January 2022, and resumed in person February 2022.
- July 2017 *2nd Annual Workshop on PK-12 Education for the Planet Earth of Tomorrow (Theme: STEM Equity).* Attended by over 80 STEM teachers from across the Northern Colorado region. I was the PI and Organizer, Co-Organized with John Howe, CSU School of Education & Poudre School District Administrator. Supported by the NSF-funded DIMACS Special Program: Mathematics of Planet Earth 2013+ at Rutgers University
- July 2016 *Workshop on PK-12 Education for the Planet Earth of Tomorrow (Theme: Interdisciplinary Approaches to STEM Education).* Attended by 16 nationally recognized and/or award-winning teachers, who were identified based on their commitment to interdisciplinary approaches to STEM education. I was the PI and Organizer along with Co-PI/Organizer: L. Sample McMeeking, CSU STEM Center. Supported by the NSF-funded DIMACS Special Program: Mathematics of Planet Earth 2013+ at Rutgers University.
- Dec 2016 *Coteaching in student teaching.* Professional Development Workshop (134 attendees). Colorado State University, Fort Collins, CO. with Decker, D., Drager, J., Fothergill, W., Fredericksen, H., Sebald, A., Stevenson, C. A., & **Weinberg, A. E.** [organizers listed alphabetically]

D. Research Conference Service

Proposal Reviewer

- 2021 Comparative and International Education Society (CIES)
- 2021 American Educational Research Association Division L: *Educational Policies and Politics* and the *Socio-Political Issues in Mathematics and Science Education* Special Interest Group (SIG)
- 2021 North American Association for Environmental Education (NAAEE)
- 2020 North American Association for Environmental Education (NAAEE)
- 2019 Comparative and International Education Society (CIES)
- 2018 American Educational Research Association *Division K: Teaching and Teacher Education*

2014-15 American Educational Research Association *Division K: Teaching and Teacher Education*

Session Chair

2015 American Educational Research Association *Division K Section 8: Teacher Professional Development: Impact on Teacher Practices and Student Learning.*

C. University Level Service

2022-2024 ASU University Curriculum and Academic Programs Committee

D. College-Level Service

2022 Faculty Search Committee: MLFTC Division 1, Elementary Education, Social Studies, Tenure-Track

2021-2022 MLFTC EdD Admissions Review Committee

2020-2021 MLFTC Faculty Awards Committee

2020-Present Course Coordinator for SCN 400: *Sustainability Science for Elementary Teachers*. In addition to keeping the course materials and content up to date for the 10-12 sections of this course offered each year, I promote and support a community of practice among instructors through regular meetings (3-4 times per semester)

2019-Present MLFTC Curriculum Review Committee

2019-2022 ASU MLFTC Educational Policy and Evaluation Program Admissions Reviewer

2019-2022 ASU Learning, Literacies, and Technologies Program Admissions Reviewer

2018-Present MLFTC Teacher Education Program Redesign

2017-Present MLFTC Principled Innovation Steering Committee

E. Community Service

2021-Present Tempe Elementary ESSER III Advisory Committee - Parent Representative

2019-Present Tempe Elementary School Community Advisory Board/Site Council

2020-2021 Arizona Sustainability Alliance Liaison

2020-2021 Broadmor Learning Patch Remote Learning Sub-Committee

2019-Present Broadmor Learning Patch Board Member & Work Day Captain

2019-2020 KidZone "Urban Biodiversity and Schoolyard Habitats" Program

2018-Present Broadmor "Garden to Cafeteria" Program

