Lydia L. Ross, PhD

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Education

2019	Ph.D. Educational Policy & Evaluation Arizona State University Dissertation Title: Examining Undergraduate Engineering Students' Knowledge, Beliefs, and Attitudes Regarding Affirmative Action Admissions Policies: A Hierarchical Regression Analysis
2015	M.P.S. Leadership & Organizations University of Denver
2012	B.A. History University of Colorado – Denver

Research Interests

Higher education; post-secondary access & pathways; student well-being and success; professional development; STEM education; quantitative research; critical quantitative methods; research design

Relevant Professional Experience

2023 – Present	Assistant Professor Mary Lou Fulton College for Teaching & Learning Innovation, Arizona State University (ASU)
2019 – 2023	Clinical Assistant Professor Mary Lou Fulton College, Arizona State University
2019 – 2023	Executive Director Association for Education Finance & Policy
Summer 2019	Management Research Analyst University Office of Evaluation and Educational Effectiveness, Arizona State University
	Postdoctoral Research Fellow Ira A. Fulton Schools of Engineering, ASU
2015 – 2019	Graduate Research Assistant Mary Lou Fulton College, ASU Ira A. Fulton Schools of Engineering, ASU

Decision Center, ASU Arizona Minority Education Policy Analysis Center

Publications

≈indicates equal authorship, *indicates student/former student co-author

Peer-Reviewed Journal Articles

- **Ross, L.** (forthcoming). Affirmative action in engineering: A multiple methods examination of undergraduate students' attitudes and perceptions. *Journal of Women and Minorities in Science and Engineering*.
- **Ross**, L. (forthcoming). A systematic review of gender identity representation in STEM education research. *Discover Education*.
- Mehrabi, D., Schneider, V., Grau, D., Ariaratnam, St. T., & Ross, L. (**forthcoming**). Enhancing graduate engineering education through international research experiences: A comprehensive analysis of competency development. *Journal of Civil Engineering Education*.
- Thurber, D.*, Markos, A., **Ross, L.**, Conley, Q, & Wendt, J. (forthcoming). Examining the use and usability of course "fact sheets" as an innovative approach to faculty development. *Journal of Faculty Development*, 39(2), 41-48.
- **Ross, L.**, Krause, S. J., Judson, E., Hjelmstad, K. J., Middleton, J. M., Hjelmstad, K. (2024). A multi-year professional development program for active learning practices in higher education. *Advances in Engineering Education*, *12*(1), 45-73. DOI: 10.18260/3-1-1153-36056
- Ikegwuonu, E., & **Ross**, L. (2024). Do students' academic capital, knowledge, and attitudes towards mandatory fees, and university knowledge predict their payment methods? *Journal of Student Financial Aid*, *53*(2). https://doi.org/10.55504/0884-9153.1791
- Thurber, D.*, Markos, A., **Ross, L.**, Conley, Q., & Wendt, J. (2024). Improving implementation of a large-scale curriculum redesign: Balancing fidelity and agency. *Innovative Higher Education*. https://doi.org/10.1007/s10755-024-09736-2
- **Ross, L.,** Chapman, K. P., Dorn, S. J., & Casanova, C. (2023). Opting out of standardized tests at the secondary level A geographic analysis of Colorado. *AERA Open*. https://doi.org/10.1177/23328584231169735
- **Ross, L.**, Dalal, M., & Carberry, A. C. (2023). Expanding access to STEM pathways: Professional learning for high school counselors. *School Science and Mathematics Journal*. https://doi.org/10.1111/ssm.12576
- Middleton, J. A., Krause, S. J., Judson, E., **Ross, L.**, Culbertson, R., Hjelmstad, K. J., Hjelmstad, K. A., Chen, Y.C. (2022). A social network analysis of engineering faculty connections:

- Their impact of faculty student-centered attitudes and practices. *Education Sciences*, 12(2), 108. https://doi.org/10.3390/educsci12020108
- Judson, E., & Ross, L. (2021). Effects of gender and underrepresented minority status on faculty workload recommendations. *Journal of Women and Minorities in Science and Engineering*, 27(5), 49-82. https://doi.org/10.1615/JWomenMinorScienEng.2021034858
- Hoyt, S., **Ross**, L., Judson, E., Krause, S., & Mayled, L. (2020). Analyzing student achievement to measure the effectiveness of professional development for active learning strategies in the engineering classroom. *Journal of Higher Education Theory & Practice*, 20(11), 123–136. https://doi.org/10.33423/jhetp.v20i11.3769
- Chapman, K., Ross, L., & Dorn, S. (2020). Opting out in the empire state: A geographic analysis of opting out in New York, spring 2015 & 2016. *Teachers College Record*, 122(2). https://doi.org/10.1177/016146812012200206
- Judson, E., **Ross**, L., & Glassmeyer, K. (2019). How research, teaching, and leadership roles are recommended to male and female engineering faculty differently. *Research in Higher Education*, 60(7), 1025–1047. https://doi.org/10.1007/s11162-018-09542-8
- Ramirez, P. C., & Ross, L. (2019). Secondary dual language learners and emerging pedagogies: The intersectionality of language, culture, and community. *Theory into Practice*, 58(2), 176-184. http://dx.doi.org/10.1080/00405841.2019.1569399
- Ross, L., & Judson, E. (2018). Gender-based differences in faculty members' view and use of student-centered learning strategies. *International Journal of Gender, Science, and Technology*, 9(3), 204-220. https://genderandset.open.ac.uk/index.php/genderandset/article/view/513
- Judson, E., **Ross**, L., Middleton, J. A., & Krause, S. J. (2017). Measuring engineering faculty views about benefits and costs of using student-centered strategies. *International Journal of Engineering Pedagogy*, 7(2), 65-78. https://doi.org/10.3991/ijep.v7i2.6808
- Ramirez, P. C., Vickery, A. E., Salinas, C. C., & **Ross**, L. (2016). Advocating for language rights: Critical Latina teachers creating bilingual space in Arizona. *Bilingual Research Journal*, 39(3-4), 296-308. https://doi.org/10.1080/15235882.2016.1238856
- Ramirez, P. C., **Ross**, L., & Jimenez-Silva, M. (2016). The intersectionality of border pedagogy and Latino/a youth: Enacting border pedagogy in multiple spaces. *High School Journal*, 99(4), 302-321. https://doi.org/10.1353/hsj.2016.0011

Book Chapters

- *Dalal, M., & *Ross, L. (forthcoming). Building Belonging in Engineering Education: Active Learning, Inclusive Teaching, and Structural Change in Engineering Faculty Practice. In Castagno, A. C., & Brown, M. (Eds.) *Diversity, Equity, and Inclusion in STEM Higher Education: An Anthology of Practice* (forthcoming).
- Ross, L., Krause, S., Judson, E., Hjelmstad, K., Middleton, J., Mayled, L., , S., & Hjelmstad, K. (2022). Best Practices in Program Structure & Participant Engagement in

STEM Faculty Development Programs. In Linder, S., Lee, C., & High, K. (Eds). *Handbook of STEM Faculty Development* (2022). ISBN: 979-8-88730-047-4

Manuscripts in Review

- **Ross, L.,** Wang, J.*, & Terpkosh, T.* (in review). Sense of belonging in engineering: A multigroup analysis of undergraduate engineering students. *Journal for Engineering Education*.
- **Ross, L.,** & Wang, J.* (in review). Belonging, self-efficacy, and the value of diversity: A multigroup gender structural equation modeling approach. *International Journal for Gender, Science, & Technology*.
- Powers, J. M., & **Ross**, L. (revise & resubmit). The durable inequality of redlining: The lingering association between HOLC neighborhood ratings and school segregation in Oakland. *Urban Education*.
- Thurber, D.*, Markos, A., & **Ross**, L. (in review). Standardization vs. autonomy: Exploring tensions in faculty perceptions of agency in a redesigned curriculum. *Further and Higher Education*.

Editorial Articles

- **Ross, L.**, & Krause, S. (2024, February). *Getting active: Professional development may help faculty implement active learning.* PRISM.
- Ross, L., Casanova, C., Chapman, K., & Dorn, S. (2023, November). 1 in 4 Colorado 11th-graders skipped their state's standardized test geography and income help explain why. The Conversation. Available at https://theconversation.com/1-in-4-colorado-11th-graders-skipped-their-states-standardized-test-geography-and-income-help-explain-why-205244

Policy Reports & Briefs

Vagi, R., Ross, L., & Somani, Z. (2018). Arizona minority student progress report 2018: When the minority becomes the majority. Arizona Minority Education Policy Analysis Center.

Book Reviews (Editorially Reviewed)

- Ross, L., & Powers, J. M. (2018, December 12). Review of *The color of law: The forgotten history of how our government segregated America*, by R. Rothstein. *Education Review*, 25 (2018). http://dx.doi.org/10.14507/er.v25.2440
- Ross, L. (2018, January 16). Book Review: Quintero, E. & Hargreaves, A. (Eds.) (2017). *Teaching in context: The social side of education reform*. Cambridge, MA: Harvard Education Press. *Teachers College Record*. https://journals.sagepub.com/page/tcz/collections/bookreviews 2022

Grants

National Grants	
Developing Professional Learning Experiences in Engineering for High School Counselors Funder: National Science Foundation, DRK-12 Program Role: Co-Principal Investigator Amount: \$793,453 PI: Dr. Medha Dalal	2024 - Present
Collaborative Research: GP-IN: Transforming geoscience fieldwork into integrated, virtual education experiences Funder: National Science Foundation, IUSE Program Role: External Evaluator PI: Dr. Deeksha Seth, Villanova University	2023 - Present
JTFD: Scaling a Cyber-Enabled, Just-in-Time-Teaching with Two-Way Formative Feedback Pedagogy to the Multiple Disciplinary Program Funder: National Science Foundation, IUSE Program Role: Research Assistant Amount: \$1,500,000 PI: Dr. Stephen Krause	2015 – 2019
Research Grants	
Navigating Anti-"CRT" Movements: Educators' Well-Being, Teaching Practices, and Support Needs Funder: Institute for Social Sciences Research Seed Grant Program at ASU Amount: \$5,083 Role: Principal Investigator	2024 – 2025
Arizona Minority Education Policy Analysis Center Learning Futures Collaborative at ASU Funder: Mary Lou Fulton College Learning Futures Collaborative Amount: \$10,000 Role: Co-Principal Investigator	2024 – 2025
Exploring the Effect of Interdisciplinary Learning Experiences on Academic Achievement in Engineering Education via Natural Language Processing Funder: Mary Lou Fulton College Internal Grants Amount: \$9,885 Role: Principal Investigator	2024 – 2025
Do Attitudes Towards and Knowledge of Mandatory Fees Predict College Student Engagement in Fee Supported Services? Funder: St. Cloud State University Amount: \$7,355 Role: Co-Principal Investigator	2021 – 2022
Evaluating the Efficacy of an Engineering Education Professional Development for High School Guidance Counselors Funder: Mary Lou Fulton Teachers College Internal Grants	2020 – 2021

March 2022

Amount: \$13,325

Role: Principal Investigator

Small GrantsDate AwardedASU MLFTC Mini-Grant – competitive (\$500)September 2024ASU MLFTC Mini-Grant – competitive (\$600)May 2024

Unfunded Grants
Exploring how educators & youth navigate restrictive educational policies

Date Submitted
June 2025

& effects on well-being

Funder: Spencer Foundation Large Grant Program

Amount: \$475,992

Role: Co-PI/Research Staff

Predictive modeling of employability pathways in East African higher March 2024

education: A machine learning study

Funder: Spencer Foundation Vision Grant Program

Amount: \$70,000 Role: Co-PI

Engineering professional learning for school counselors: Advancing october 2022 engineering career development practices toward broadening participation

Funder: National Science Foundation, DRK-12 Program

Amount: \$638,278 Role: Co-PI

Evaluating an informal learning STEM program for targeted capacity

building in low-resourced communities Funder: Brady Education Foundation

Amount: \$88,000 Role: Co-PI

The shifting landscape of higher education in a post-COVID era: Connecting research, policy, & practice on factors that influence student equity and access

Funder: American Educational Research Association

Amount: \$33,181

Role: Principal Investigator

Academic Grants & Scholarships Received

ASU EPE Program Grant – competitive	2018
ASU GPSA Graduate Research Support Grant – competitive	2018
ASU GPSA Group Travel Grant – competitive	2018
ASU GPSA Travel Grant – competitive	2018
ASU EPE Program Grant – competitive	2017
ASU GPSA Travel Grant – competitive	2017
ASU University Graduate School Fellowship	2016
ASU Educational Policy Studies Alumni Fellowship	2016
ASU University Graduate School Fellowship	2015
ASU MLFTC University Grant	2015

Honors, Awards, & Fellowships

Honors

2024 Outstanding Service Award, Association for Education Finance and Policy

Best Paper Awards

- Mayled, L., Ross, L., Ankeny, C. J., & Oswald, J. (2019, June). *Effects of alternative course design and instructional methods in the engineering classroom*. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE) conference, Tampa, FL.
 - Best Paper, Mechanical Engineering Division, 2019
- Ross, L., Judson, E., Ankeny, C. J., Krause, S. J., Culbertson, R. J., Hjelmstad, K. D., Mayled, L. H., Glassmeyer, K., Middleton, J. A., & Hjelmstad, K. L. (2018, June). *Is there a connection between classroom practices and attitudes towards student-centered learning in engineering?* Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Salt Lake City, UT.
 - Best Paper, Professional Interest Council V, 2018
 - Best Paper, Continuing Professional Development Division, 2018
- Judson, E., **Ross**, L., Hjelmstad, K. L., Krause, S. J., Culbertson, R. J., Hjelmstad, K. J., Mayled, L. H., & Middleton, J. A. (2018, June). *The effects of professional development and coaching on teaching practices*. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Salt Lake City, UT.
 - 2nd Place Best Paper Award, First-Year Program Divisions, 2018
- Middleton, J. A., Krause, S. J., Judson, E., Culbertson, R. J., **Ross, L.**, Hjelmstad, K. D., . . . Smith, B. B. (2016, June). *Connections among university faculty engaged in the first two years of engineering, and their impact on faculty attitudes and practice*. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), New Orleans, LA.
 - Best Paper Award, First-Year Program Divisions, 2016

Fellowships

Law, Policy, and Governance in Higher Education Mentoring Roundtables Fellow, 2025 *Penn State University*

National Science Foundation Quantitative Research Methods in STEM Education, 2024 – 2025 *University of Maryland*

STEM Equity-Oriented, Anti-Racist Faculty Academy, 2024 *Northern Arizona University*, funded by Genentech

Presentations

Invited Presentations & Other Invited Roles

Ross, L. (2025, Discussant). *Measuring what matters: Quantitative approaches to student well-being and equity.* Annual meeting of the Association for the Study of Higher Education (ASHE), Denver, CO.

- **Ross, L.** (2025, Chair). The meaning of place: Student and alumni understandings of campus spaces and places. Annual meeting of the Association for the Study of Higher Education (ASHE), Denver, CO.
- Dalal, M., & Ross, L. (2025, Presenter & Facilitator). *Developing professional learning experiences for high school counselors*. Annual DRK-12 PI Meeting for the National Science Foundation (NSF), Arlington, VA.
- **Ross, L.** (2025, Presenter). Exploring latent constructs and relationships in e4usa data. e4usa Board Meeting.
- Ross, L. (2025, Presenter). Exploring e4usa data. e4usa Research Team Meeting.
- **Ross, L.** (2023, Discussant). A new college admissions in the face of cultural and policy changes. Annual meeting of the Association for the Study of Higher Education (ASHE), Minneapolis, MN.
- **Ross, L.** (2023, Chair). *Work in progress session*. Annual meeting of the Association for the Study of Higher Education (ASHE), Minneapolis, MN.
- **Ross, L.** (2023, Chair). *Take the money and learn: Financial aid barriers and breakthroughs.* Annual meeting for the Association of the Study of Higher Education (ASHE), Minneapolis, MN.
- Ross, L. (2023, Panelist). *Distinguishing the dissertation in practice*. Annual meeting of the Carnegie Project for the Education Doctorate (CPED), Pensacola, FL.

Peer-Reviewed – National Conferences

- *Indicates work with doctoral student(s), **Indicates best paper award
- **Ross, L.**, & Wang, J.* (2025, November). Belonging, self-efficacy, and the value of diversity: A structural equation modeling approach. Paper presented at the annual conference of the Association for the Study of Higher Education (ASHE), Denver, CO.
- **Ross, L.**, & Dorn, S. (2025, November). *Mapping FAFSA completion: A spatial and multi-method analysis of Michigan secondary schools*. Paper presented at the annual conference of the Association for the Study of Higher Education (ASHE), Denver, CO.
- Wang, J.*, Ross, L., & Hu, Y. (2025, November). Lens of belonging: Understanding STEM undergraduate international students' campus experiences through photovoice. Work-in-progress paper presented at the annual conference of the Association for the Study of Higher Education (ASHE), Denver, CO.
- **Ross, L.,** Carmichael, J.*, & Casanova, C. (2025, March). *Navigating anti-"CRT" movements: Educators' well-being, teaching practices, and support needs*. Paper presented at the annual conference of the Association for Education Finance and Policy (AEFP) conference, Washington, DC.

- **Ross, L.** (2024, November). *Geography of opportunity: Mapping higher education institution locations through HOLC redlining maps.* Work-in-progress paper presented at the annual meeting of the Association for the Study of Higher Education (ASHE) conference, Minneapolis, MN.
- Hailu, M. F., & Ross, L. (2024, November). *Predictive modeling of employability pathways in East African higher education: A machine learning study.* Paper presented at the annual meeting of the Association for the Study of Higher Education (ASHE) conference, Minneapolis, MN.
- **Ross,** L. (2024, November). Exploring gender diversity in STEM: A systematic review of the literature. Poster presented at the annual meeting of the Association for the Study of Higher Education (ASHE) conference, Minneapolis, MN.
- Markos, A., DeMartino, L., & Ross, L. (2024, October). Embracing transformation: A huliau-inspired program re/design. Presented at CPED Annual Convening in Honolulu, HI.
- Markos, A., Ross, L. & Smith, S. (2024, October). Fostering social presence in online EdD programs: Promoting students' sense of community, engagement, and belonging. Presented at CPED Annual Convening in Honolulu, HI.
- **Ross, L.**, & Seth, D. (2024, June). *Beyond exhibits: Exploring bio-inspired education robots in museums for STEM enrichment*. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE) conference, Portland, OR.
- Thurber, D., Markos, A. M., Wendt, J., **Ross, L.,** & Conley, Q. (2024, April). *Improving implementation of a constructively-aligned program: Balancing fidelity and agency.*Paper presented at the annual meeting of the American Educational Research Association (AERA) conference, Philadelphia, PA.
- **Ross, L.** (2024, March). A mixed methods exploration of students' attitudes regarding affirmative action admissions policies. Paper presented at the annual meeting of the Association for Education Finance & Policy (AEFP) conference, Baltimore, MD.
- **Ross,** L. (2023, November). A mixed methods analysis of attitudes towards affirmative action amongst undergraduate students. Paper presented at the annual meeting of the Association for the Study of Higher Education (ASHE), Minneapolis, MN.
- Seth, D., & Ross, L. (2023, November). The use of a bio-inspired educational robot to enhance integrated STEM education. Poster presented at the annual meeting of the American Association of Colleges and Universities (AAC&U) conference, Arlington, VA.
- Ikegwuonu, E., & Ross, L. (2022, April). Do students' academic capital, knowledge and attitudes of mandatory fees predict their payment methods? Paper presented at the annual meeting of the American Educational Research Association (AERA) conference, San Diego, CA.

- Dalal, M., Ross, L., & Roarty, J.* (2022, April). Whistling Vivaldi: Examining stereotypes and implicit biases in the context of engineering career counseling. Paper presented at the annual meeting of the American Educational Research Association (AERA) conference, San Diego, CA.
- Roarty, J.*, Dalal, M. D., **Ross, L.,** & Carberrry, A. C. (2021, October). *Examining the influence of a professional development program on high school counselors' practices regarding engineering.* Paper presented at the annual meeting of the Frontiers in Education (FIE) conference.
- **Ross, L.,** Dalal, M. D., Carberry, A. C., & Roarty, J.* (2021, June). *Professional development program for high school counselors on the engineering design process.* Paper presented at the annual meeting of the American Society for Engineering Education (ASEE).
- Ikegwuonu, E., & Ross, L. (2021). Do attitudes towards and knowledge of mandatory fees predict college student engagement in fee supported services? Paper presented at the annual meeting of the Association for Education Finance & Policy (AEFP).
- Judson, E., & **Ross, L.** (2021). How biology and physics faculty guide female and URM faculty toward leadership, research, and teaching. Paper presented at the annual meeting of the National Association of Research in Science Teaching (NARST).
- **Ross, L.,** Krause, S. J., Hjelmstad, K. D., Judson, E., Mayled, L. H., ... & Glassmeyer, K. (2020, June). *Review and assessment of an evidence-based professional development program to promote active learning pedagogical practices in the classroom.* Paper presented at the annual meeting of the American Society for Engineering Education (ASEE) conference.
- Judson, E., **Ross, L.**, Krause, S. J., Hjelmstad, K. D., & Mayled, L. H. (2020, June). *How a STEM faculty member's gender affects career guidance from others: Comparing engineering to biology and physics*. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE) conference.
- Glassmeyer, K., Ross, L., Judson, E., Krause, S. J., & Mayled, L. H. (2020, June). Exploratory factor analysis of approaches to teaching inventory (ATI): Use in an evidence-based faculty development program for promoting active learning pedagogical strategies. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE) conference.
- Hoyt, S. Mayled, L. H., Krause, S. J., Hjelmstad, K. D., Hjelmstad, K. L., ... Liu, K. (2020, June). *Extending faculty development through a sustainable community of practice*. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE) conference.
- Hoyt, S., Mayled, L. H., Judson, E., Krause, S.J., Hjelmstad, K. L.,, Liu, K. (2020, June). Analyzing student achievement to measure the effectiveness of active learning strategies in the engineering classroom. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE) conference.

- **Ross, L.,** Judson, E., & Glassmeyer, K. (2020, April). *Faculty workload recommendations in STEM: The role of gender and ethnicity.* Paper accepted for presentation at the annual meeting of the American Educational Research Association (AERA) conference, San Francisco, CA (note: conference canceled due to COVID-19).
- Lopez, J. D., Dorn, S., & Ross, L. (2020, April). Finding home: Clusters of Native American college graduates national patterns and three case studies. Paper presented for presentation at the annual meeting of the American Educational Research Association (AERA) conference, San Francisco, CA (note: conference canceled due to COVID-19).
- Judson, E., & Ross, L. (2020, April). Are gender and ethnicity considerations part of faculty workload recommendations? Paper presented for presentation at the annual meeting of the American Educational Research Association (AERA) conference, San Francisco, CA (note: conference canceled due to COVID-19).
- **Ross, L.,** Powers, J. M. (2020, March). *Documenting durable inequality: The association between redlining and contemporary patterns of school segregation in Denver, CO.* Paper presented at the annual meeting of the Association for Education Finance and Policy (AEFP) conference.
- **Ross, L.** (2019, November). *Students' knowledge of affirmative action admissions policies in higher education*. Paper presented at the annual meeting of the Association for the Study of Higher Education (ASHE) conference, Portland, OR.
- Ross, L., Glassmeyer, K., Honeycutt, C. F., Judson, E., Krause, S. J., Middleton, J. A., Hjelmstad, K. D., Hjelmstad, K. A., Mayled, L., & Culbertson, R. J. (2019, June). *Examining effects of an evidence-based professional development program on student achievement.* Paper presented at the annual meeting of the American Society for Engineering Education (ASEE) conference, Tampa, FL.
- Ross, L., Mayled, L., Krause, S. J., Judson, E., Hjelmstad, K. D., Middleton, J. A., Culbertson, R. J., Ankeny, C. J., Chen, Y. C., Hjelmstad, K. L., Glassmeyer, K., & Hoyt, S. (2019, June). Scaling and assessment of an evidence-based faculty development program for promoting active learning pedagogical strategies. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE) conference, Tampa, FL.
- **Mayled, L., Ross, L., Ankeny, C. J., & Oswald, J. (2019, June). Effects of alternative course design and instructional methods in the engineering classroom. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE) conference, Tampa, FL. (Best Paper Award, Mechanical Engineering Division, 2019).
- Mayled, L., Ross, L., Krause, S. J., Hjelmstad, K. D., Judson, E., Middleton, J. A., Culbertson, R. J., Hjelmstad, K. L., & Glassmeyer, K. (2019, June). *Impact of evidence-based active learning faculty development on low-SES engineering students' achievement.* Paper presented at the annual meeting of the American Society for Engineering Education (ASEE) conference, Tampa, FL.

- Mayled, L., Ross, L., Collofello, J., Krause, S. J., Hjelmstad, K. D., Sebold, B. J., & Hoyt, S. (2019, June). Coaching and feedback in a faculty professional development program that integrates the entrepreneurial mindset and pedagogical best practices into capstone design courses. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE) conference, Tampa, FL.
- **Ross, L.** (2019, April). Examining undergraduate student attitudes toward affirmative action. Paper presented at the annual meeting of the American Educational Research Association (AERA) conference, Toronto, ON.
- Powers, J. P., & Ross, L. (2019, April). The durable inequality of redlining: The lingering association between HOLC neighborhood ratings and school segregation. Paper presented at the annual meeting of the American Educational Research Association (AERA) conference, Toronto, ON.
- **Ross, L.**, Ambroso, E., Chapman, K. P., & Sweet, J. D. (2019, April). *Examining the proximity effect between school shootings and academic achievement in Florida secondary schools.*Paper presented at the annual meeting of the American Educational Research Association (AERA) conference, Toronto, ON.
- **Ross, L.** (2019, March). Examining undergraduate students' knowledge and attitudes regarding affirmative action admissions policies. Paper presented at the annual meeting of the Association for Education Finance & Policy Conference (AEFP), Kansas City, MO.
- Ross, L., Judson, E., Krause, S., Culbertson, R. Hjelmstad, K., & Middleton, J. (2018, November). *Examining shifting faculty beliefs and practices through an active learning professional development program*. Paper presented at the annual meeting of the Association for the Study of Higher Education conference (ASHE), Tampa, FL.
- **Ross, L., Judson, E., Ankeny, C. J., Krause, S. J., Culbertson, R. J., Hjelmstad, K. D., Mayled, L. H., Glassmeyer, K., Middleton, J. A., & Hjelmstad, K. L. (2018, June). *Is there a connection between classroom practices and attitudes towards student-centered learning in engineering?* Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Salt Lake City, UT. (2 awards: Best Paper Award, Continuing Professional Development Division, 2018; Best Paper Award, Professional Interest Council V, 2018).
- **Judson, E., **Ross, L.**, Hjelmstad, K. L., Krause, S. J., Culbertson, R. J., Hjelmstad, K. J., Mayled, L. H., & Middleton, J. A. (2018, June). *The effects of professional development and coaching on teaching practices*. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Salt Lake City, UT. (2nd Place Best Paper Award, First-Year Program Divisions, 2018).
- Ankeny, C. A., Mayled, L. H., **Ross, L.**, Hjelmstad, K. D., Krause, S. J., Middleton, J. A., & Culbertson, R. J. (2018, June). *Creating and scaling an evidence-based faculty*

- development program. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Salt Lake City, UT.
- Middleton, J. A., Judson, E., Krause, S. J., Culbertson, R. J., Hjelmstad, K. D., Mayled, L. H., Ross, L., Hjelmstad, K. L., & Chen, Y. C. (2018, June). *Social network analysis of faculty connections in a multi-year professional development program.* Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Salt Lake City, UT.
- Hjelmstad, K. L., Hjelmstad, K. D., Krause, S. J., Mayled, L. H., Judson, E., **Ross, L.**, Culbertson, R. J., Middleton, J. A., Ankeny, C. J., & Chen, Y. C. (2018, June). Facilitating change in instructional practice in a professional development program through classroom observations and formative feedback coaching. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Salt Lake City, UT.
- Krause, S. J., Hjelmstad, K. D., Judson, E., Middleton, J. A., Culbertson, R. J., Ankeny, C. J., Chen, Y. C., **Ross, L.**, Mayled, L. H., & Hjelmstad, K. L. (2018, June). *Assessing faculty and organizational change in a professional development program with workshops and disciplinary communities of practice*. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Salt Lake City, UT.
- Krause, S. J., Judson, E., Hjelmstad, K. D., Middleton, J. A., Culbertson, R. J., Ankeny, C. J., Chen, Y. C., **Ross, L.,** Mayled, L. H., Hjelmstad, K. L. (2018, June). *A multidisciplinary professional development program that shifts faculty attitudes and practices towards evidence-based instructional strategies (EBIS) for teaching and learning*. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Salt Lake City, UT.
- Chapman, K. P., **Ross, L.**, & Dorn, S. J. (2018, April). *The 999 code: A geographic analysis of opting-out behavior in New York.* Paper presented at the annual meeting of the American Educational Research Association (AERA) conference, New York, NY.
- Ross, L., Chapman, K. P., & Dorn, S. J. (2018, March). A geographic analysis of opting-out behavior in Colorado. Paper presented at the annual meeting of the Association for Education Finance & Policy Conference (AEFP), Portland, OR.
- **Ross, L.** (2017, November). *Literature review: CRT & affirmative action research*. Paper presented at the annual meeting of the Association for the Study of Higher Education Conference (ASHE), Houston, TX.
- Ross, L., Judson, E., Hjelmstad, K., Krause, S., Ankeny, C., Culbertson, R., & Middleton, J. (2017, November). *Gender & implicit bias in assigning faculty tasks*. Paper presented at the annual meeting of the Association for the Study of Higher Education Conference (ASHE), Houston, TX.

- Ross, L., Judson, E., Krause, S., Ankeny, C., Culbertson, R., & Hjelmstad, K. (2017, November). *Assessing relationships between faculty beliefs and instruction practices in the classroom*. Paper presented at the annual meeting of the Association for the Study of Higher Education Conference (ASHE), Houston, TX.
- Ross, L., Krause, S., Hjelmstad, K., Middleton, J., Judson, E., Culbertson, R., Ankeny, C., ...Lopez, E. (2017, November). Scaling a faculty professional development program to multiple disciplines to promote active learning strategies in classroom instruction. Paper presented at the annual meeting of the Association for the Study of Higher Education Conference (ASHE), Houston, TX.
- Judson, E., Ross, L., Hjelmstad, K. D., Krause, S. J., Ankeny, C. J., Culbertson, R. J., & Middleton, J. A. (2017, June). *Examination of implicit gender biases among engineering faculty when assigning leadership, research, and service roles*. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Columbus, OH.
- **Ross, L.**, Judson, E., Krause, S. J., Ankeny, C. J., Culbertson, R. J., & Hjelmstad, K. D. (2017, June). *Relationships between engineering faculty beliefs & classroom practices*. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Columbus, OH.
- Judson, E., Ross, L., Krause, S. J., Middleton, J. A., Ankeny, C. J., Culbertson, R. J., & Hjelmstad, K. D. (2017, June). *An expectancy theory-based instrument assessing relationships between faculty dispositions and use of student-centered strategies*. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Columbus, OH.
- Krause, S. J., Middleton, J. A., Hjelmstad, K. D., Judson, E., Culbertson, R. J., Ankeny, C. J., Chen, Y. C., **Ross, L.**, Mayled, L. H., Lopez, E., Park, Y. S., Smith, & B. B. (2017, June). *Scaling a faculty professional development program to multiple disciplines through disciplinary communities of practice evolving from evidence-based workshops.* Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Columbus, OH.
- Lopez, E., Park, Y. S., Smith, B. B., Middleton, J. A., Hjelmstad, K. D., Judson, E., Culbertson, R. J., Chen, Y. C., **Ross, L.**, Mayled, L. H., Krause, S. J, & Ankeny, C. J. (2017 June). Work in in progress: The impact of faculty development workshops on shifting faculty teaching beliefs and classroom practice toward student-centeredness. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Columbus, OH.
- **Ross, L.** (2017, April). *Critical discourse analysis of Fisher anti-affirmative action rhetoric*. Paper presented at the annual meeting of the American Educational Research Association (AERA) conference, San Antonio, TX.

- Judson, E., & Ross, L. (2017, April). Advanced placement science teachers pivoting to regular and honors courses: how approaches change and persist. Poster presented at the annual meeting of the American Educational Research Association (AERA) conference, San Antonio, TX.
- Judson, E., & Ross, L. (2017, April). How sentiments and approaches change from AP to regular and to honors science courses. Paper presented at the annual meeting of the National Association of Research in Science Teaching (NARST), San Antonio, TX.
- Judson, E., & Ross, L. (2017, April). How feelings about student-centered strategies affect actual implementation. Paper presented at the annual meeting of the National Association of Research in Science Teaching (NARST), San Antonio, TX.
- Judson, E., & Ross, L. (2017, April). Advanced placement science teachers pivoting to regular and honors courses: How approaches change and persist. Paper presented at the annual meeting of the National Association of Research in Science Teaching (NARST), San Antonio, TX.
- Krause, S., Middleton, J., Hjelmstad, K., Ankeny, C., Culbertson, R., Judson, E., Chen, Y. C., Ross, L., Mayled, L., Hjelmstad K. Smith, B., & Park, Y. S. (2017, April). *Creating faculty disciplinary communities of practice through professional development workshops*. Paper presented at the American Society of Engineering Education (ASEE) Pacific Southwest Section conference, Tempe, AZ.
- **Ross, L.**, Chapman, K., & Dorn, S. (2017, March). *A geographic analysis of opting-out behavior in New York from 2014-2016*. Paper presented at the annual meeting of the Association for Education Finance and Policy (AEFP), Washington, DC.
- Cirell, A. M., Chapman, K., **Ross, L**., & Ambroso, E. (2017, March). *Geographically correlating school shootings, school violence, and student performance in Florida, 2006-2009.* Paper presented at the annual meeting of the Association for Education Finance and Policy (AEFP), Washington, DC.
- Ross, L., Judson, E., Krause, S. J., Middleton, J. A., Ankeny, C. J., Culbertson, R. J., ... Smith, B. B. (2016, June). *How do male and female faculty members view and use classroom strategies?* Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), New Orleans, LA.
- Judson, E., Ross, L., Middleton, J. A., Krause, S. J., Ankeny, C. J., Chen, Y. C., ... Park, Y. S. (2016, June). Work in progress: Measuring dispositions toward teaching strategies and their reported use. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), New Orleans, LA.
- **Middleton, J. A., Krause, S. J., Judson, E., Culbertson, R. J., **Ross, L.**, Hjelmstad, K. D., . . . Smith, B. B. (2016, June). Connections among university faculty engaged in the first two years of engineering, and their impact on faculty attitudes and practice. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), New Orleans, LA. (Best Paper Award, First-Year Program Divisions, 2016)

- Smith, B. B., Park, Y. S., **Ross, L.**, Krause, S. J., Chen, Y. C., Middleton, J. A., . . . Yan, C. Y. (2016, June). Faculty characteristics that influence student performance in the first two years of engineering. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), New Orleans, LA.
- Smith, B. B., Park, Y. S., **Ross, L.**, Krause, S. J., Chen, Y. C., Middleton, J. A., . . . Yan, C. Y. (2016, June). *Pathways of student stayers, movers, and leavers in the first two years of undergraduate engineering*. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), New Orleans, LA.

Local Conferences

- Ross, L. (2018, December). Examining undergraduate engineering students' attitudes towards affirmative action admissions policies in higher education. Presentation at the Arizona Educational Research Association Conference, Tempe, AZ.
- **Ross, L.** (2018, September). *Examining undergraduate engineering students' attitudes towards affirmative action: A hierarchical regression analysis*. Presentation at the 7th Annual Arizona Multicultural Education Conference, Mesa, AZ.
- **Ross, L.** (2018, January). *Exploring student attitudes towards admissions policies in STEM*. Presentation at the 4th Annual Teachers College Doctoral Council (TCDC) Research Conference, Tempe, AZ.
- **Ross, L.** (2017, February). *Discourse analysis of anti-affirmative action rhetoric in Fisher v. UT Austin.* Poster presentation at Teachers College Doctoral Prospective Student Visit, Tempe, AZ.
- **Ross, L.** (2017, January). *Anti-affirmative action rhetoric: discourse analysis in Fisher v. UT Austin*. Presentation at the 3rd Annual Teachers College Doctoral Council (TCDC) Research Conference, Tempe, AZ.
- Ambroso, E., **Ross, L.**, Chapman, K., & Montana, A. (2017, January). *Tools of modern terror* and the 48-hour wait: Geopolitical implications of school shootings on student performance and school violence in Florida. Presentation accepted for the 3rd Annual Teachers College Doctoral Council (TCDC) Research Conference, Tempe, AZ.
- **Ross, L.** (2016, December). *Critical analysis of anti-affirmative action Fisher discourse*. Presentation at the Mary Lou Fulton Teachers College Doctoral Research Forum. Tempe, AZ.
- **Ross, L.** (2016, February). Gender-based differences in engineering faculty members' dispositions towards classroom strategies and actual use. Poster presentation at Teachers College Doctoral Prospective Student Visit, Tempe, AZ.
- **Ross, L.** (2016, January). *History of race-based admissions: Review of UT Austin's admissions policies*. Presentation accepted at the 2nd Annual Teachers College Doctoral Council (TCDC) Research Conference, Tempe, AZ.

Teaching Experience

Assistant Professor (inc. Clinical Assistant Professor Fall 2019 – Spring 2023)

Mary Lou Fulton Teachers College, Arizona State University

- TEL 701*+: Advanced Quantitative Methods (Spring 2020, Fall 2020, Spring 2021, Fall 2021, Spring 2022, Fall 2022, Spring 2023, Fall 2023, Fall 2024)
- TEL 704: Leadership for Organizational Change (Summer 2024)
- TEL 799⁺: Dissertation (Fall 2023, Spring 2024)
- TEL 792⁺: Research (Fall 2022, Spring 2023)
- TEL 712⁺: Mixed Methods Inquiry (Spring 2020, Spring 2021)
- TEL 707⁺: Reading the Research (Summer 2020, 2021 2022)
- TEL 708: Collaborative Approaches in Data-Informed Decision-Making (Summer 2022)
- COE 502⁺: Introduction to Data Analysis (Fall 2019, Fall 2020)
- COE 501: Introduction to Research & Evaluation in Education (Fall 2019, Summer 2021, Summer 2022)
- EPA 752⁺: Research Design (Fall 2024)
- EPA 792⁺: Research (Spring 2020)
 - *course coordinator
 - +designed course

Teaching Assistantships & Internships

- Research Design (EPA 691)
- Race, Class, Gender (EPA 691)
- Multiple Regression (EDP 552)
 - *Nominated for the Teaching Excellence Award through GPSA

Advisement & Doctoral Committees

Advisor for PhD Students

- Travis Terpkosh, Educational Policy and Evaluation (expected Spring 2030)
- Junzhao Wang, Educational Policy and Evaluation (expected Spring 2028)
- Enrique Gutiérrez Carreras, Educational Policy and Evaluation (expected Spring 2028)

Chair or Co-Chair for Ed.D. Students

- Catherine A. Deinhardt, expected Fall 2026
- Brandon Douglas, expected Fall 2026
- Anthony Hayes, expected Fall 2026
- Jose Ibarra, expected Fall 2026
- Sonia Leticia Velez, expected Fall 2026
- Karen Vigilant-Young, expected Fall 2026
- Rachna Mathur, 2025
- Rebekah West-Keur, 2025
- Robert McGehee, 2024
- Ryan Cordia, 2024
- Amy Gleiser, 2024
- Brooke Schneider, 2024
- Brian Welch, 2024
- Cody Singer, 2023 (co-chair)

Committee Member for Ph.D. Students

Yaxin (Crystal) Wang, Ph.D., expected Fall 2025

Committee Member for Ed.D. Students

- Amy Nettles, expected Fall 2026
- Patti Valella, expected Fall 2026
- Tera Geyer, expected Spring 2026
- Drew Koch, expected Fall 2025
- Cecilia Ortiz, expected Fall 2025
- Christopher Oka, expected Fall 2025
- Petra Santos, expected Fall 2025
- Katelyn Armbruster, 2025
- Lauren Lee, 2025
- Monique Sarius, 2025
- Valeria Rizo, 2024
- Erica Wager, 2024
- Joshua Sealey, 2024
- Nadine El-Awar, 2023
- Stefany Shaibi, 2023
- Heather Raithel, 2023
- Julieanne Candio-Sekel, 2023
- Aletha Connelly, 2023
- Shanomae Rose, 2023
- Michele Stiehl, 2023
- Hector Edwards, 2023
- Diana Gobin, 2023
- Simone Bernard, 2023
- Derek Thurber, 2023
- Michele Stiehl, 2023
- Jenna Lowder, 2022
- Nicole Mason, 2022
- Corinne Corte, 2022
- Wendy Lowery, 2022
- Alene Terzian-Zeitounian, Ed.D, 2022
- Raquel Alvara, 2022
- Brittany Schroeder (Barnes), 2020

External Committees

• Ivy Colòn-Alverio, St. Cloud State University, Spring 2025

Master's Committees

• Katherine Raymond, M. A. Music Therapy, Spring 2025

Barrett Honors College Thesis (Undergraduate Students)

• Nisha Reddy, Fall 2024

Service

Institutional Service

Mary Lou Fulton College, Arizona State University

- Governance and Policy Committee (Fall 2024 Present)
- Inclusive Excellence Council (Spring 2024 Present)
- Educational Policy & Evaluation PhD Admissions Committee (Fall 2023 Present)
- Quantitative Methods Courses Committee (Fall 2023 Present)
- Mixed Methods Courses Committee (Fall 2023 Present)
- Leadership & Innovation Program Committee (Fall 2023 Present)
- Leadership & Innovation Admissions Executive Committee (Fall 2023 Present)
- Doctoral Advisory Committee (Fall 2023 Spring 2025)
- Leadership & Innovation Admissions Committee (Fall 2020 Present)
- Chair, Search Committee for Instructor of Educational Leadership (Fall 2022)
- Evaluation Committee for Master's in Education Faculty Associate Pool (Fall 2022)

Institutional Service

Arizona State University

• Reviewer, Graduate College Dissertation Completion Fellowship (2020 –2023)

Professional Service

- Association for Education Finance and Policy, Program Committee (2025 2026)
- Association for the Study of Higher Education, Program Committee, Policy, Finance & Economics Section Co-Chair (2024 2025)
- Association for Education Finance and Policy, Program Committee (2024 2025)
- Association for the Study of Higher Education, Program Committee, Undergraduate Student Access Section Co-Chair (2023 2024)
- Association for Education Finance and Policy, Program Committee (2023 2024)
- Association for the Study of Higher Education, Bobby Wright Dissertation of the Year, Committee Member (2022 2025)
- Association for the Study of Higher Education, Program Committee, Undergraduate Student Access Section Co-Chair (2022 2023)
- School of Science & Mathematics Journal, Reviewer
- Review of Higher Education Journal, Reviewer
- Educational Researcher, Reviewer
- Journal for Engineering Education, Reviewer
- Journal of Educational Psychology, Reviewer
- Association for the Study of Higher Education conference, Reviewer
- American Society for Engineering Education conference, Reviewer

Community Service

• Data analysis for the e4usa project

• Two guest lectures each year on best practices in data analysis in education research for doctoral students at St. Cloud State University (2020 – Present)