

JENNIFER (MCNEILL) BEKKI

ACADEMIC AFFILIATIONS

CURRENT AFFILIATION

Associate Professor (August 2015 – Present)
Associate Director (July 2020 – Present)
The Polytechnic School
Ira A. Fulton Schools of Engineering
Affiliate Faculty, Mary Lou Fulton Teachers College
Arizona State University

PREVIOUS AFFILIATIONS

- Graduate Program Chair, Engineering Education Systems and Design (EESD) PhD Program (October 2015 – July 2019)
The Polytechnic School
Ira A. Fulton Schools of Engineering
- Assistant Professor (August 2008 – August 2015)
Department of Engineering & Computing Systems / The Polytechnic School
College of Technology & Innovation / Ira A. Fulton Schools of Engineering
Arizona State University

PUBLICATIONS AND PRESENTATIONS

Summary

Journal Publications: 17
Invited Journal Publications: 3
Total Journal Publications (Published, In Press, and/or Accepted): 20
Journal Manuscripts Submitted / In Revision: 1
Invited Book Chapters Published: 1
Refereed Conference Papers: 33
Invited Presentations, External: 1
Invited Presentations, Internal: 5
Peer-reviewed Conference Presentations: 16
Non-refereed Conference Presentations: 11

JOURNAL PUBLICATIONS

LEGEND Corresponding Author (*); **Bold Font**: ASU Ph.D. Student for whom Dr. Bekki is/was an advisor/co-advisor or has/had significant mentoring responsibility; **Bold Italic Font**: Non-ASU Ph.D. Student for whom Dr. Bekki had significant mentoring responsibility as related to publication; Underline Font: ASU Master's Student is/was an advisor/co-advisor or has/had significant mentoring responsibility; ASU Postdoctoral Researcher (°).

1. **Kittur, J.***, Bekki, J.M., & Brunhaver, S. (in press). Development of a Student Engagement Score for Online Undergraduate Engineering Courses Using Learning Management System Interaction Data. *Computer Applications in Engineering Education*.

- Wilkins-Yel, K. G. *, Arnold, A.C., Bekki, J.M., Bernstein, B. L., **Natarajan, M. W.**, & Randall, A.K. (in press). "I can't push off my own mental health": Chilly STEM Climates and the Impact on Mental Health and Persistence among Graduate Women in STEM. *Sex Roles: A Journal of Research*.
2. Wilkins-Yel, K. G. *, Bekki, J.M., Arnold, A., Bernstein, B., Okwu, C., **Natarajan, M.**, & Randall, A. K. (2021). Understanding the impact of personal challenges and advisor support on stem persistence among graduate women of color. *Journal of Diversity in Higher Education*. Advance online publication. <https://doi.org/10.1037/dhe0000236>
 3. Brunhaver, S.* , Bekki, J.M., Carberry, A., London, J., & McKenna, A. (2018). Development of the engineering student entrepreneurial mindset assessment (ESEMA). [Special Issue] *Advances in Engineering Education*, 7(1), <https://advances.asee.org/wp-content/uploads/vol07/issue01/Papers/AEE-Mindset-10-Samantha.pdf>.
 4. London, J.* , Bekki, J.M, Brunhaver, S., Carberry, A., & McKenna, A. (2018). A framework for entrepreneurial mindsets and behaviors in undergraduate engineering students. [Special issue] *Advances in Engineering Education*, 7(1), <https://advances.asee.org/wp-content/uploads/vol07/issue01/Papers/AEE-Mindset-6-London.pdf>.
 5. Batur, D.* , Bekki, J.M, & Chen, X. (2018). Quantile regression-based metamodeling: Toward improved responsiveness to changing customer demand patterns in the high-tech electronics manufacturing industry. *European Journal of Operational Research*, 264(1), 212-224. DOI: 10.1016/j.ejor.2017.06.020.
 6. Bernstein, B.L., Bekki, J.M., **Wilkins, K.G.**, & Harrison, C.J.^x (2016). Analysis of instructional support elements for an online, educational simulation on active listening for women graduate students in engineering and the physical sciences. *Journal of Computing in Higher Education*, 28(2), 136-171.
 7. **Azarnoush, B.** *, Paynabar, K., Bekki, J.M., & Runger, G.C. (2016). Monitoring temporal homogeneity in network streams. *Journal of Quality Technology*, 48(1), 1 - 16.
 8. **Wilkins, K.** *, Bernstein, B., & Bekki, J.M. (2015). Measuring communication skills: Development of the STEM-interpersonal communication skills assessment battery. *Journal of Engineering Education*, 104(4), 433-453.
 9. **Primé, D.** *, Bernstein, B.L., **Wilkins, K.G.**, & Bekki, J.M. (2015). Measuring the advising alliance for female graduate students in science and engineering: An emerging structure. *Journal of Career Assessment*, 23 (1), 64-78.
 10. Bekki, J.M.* , Bernstein, B.L. **Fabert, N.S.**, **Gildar, N.J.**, & **Way, A.** (2014). Efficacy of an online resource for teaching interpersonal problem solving skills to women graduate students in engineering, *Advances in Engineering Education*, 4(2), 1 – 27.
 11. **Hildebrand, E.A.**, Bekki, J.M.* , Bernstein, B.L., & Harrison, C.J.^x (2013). Online learning environment design: A heuristic evaluation, *Computers in Education Journal*, 4(4), 27 – 37.
 12. **Azarnoush, B.**, Bekki, J.M.* , Runger, G.C., Bernstein, B.L., & Atkinson, R.K. (2013). Toward a framework for learner segmentation. *Journal of Educational Data Mining*, 5(2), 102-126, available online at: <http://www.educationaldatamining.org/JEDM/index.php/JEDM/article/view/45/>.
 13. Bekki, J.M.* , Smith, M.L., Bernstein, B.L., & Harrison, C.J.^x (2013). Effects of an online personal resilience training program for women in STEM doctoral programs. *Journal of Women and Minorities in Science and Engineering*, 19(1), 17 – 35.
 14. Bekki, J.M.* , Mackulak, G.T., Fowler, J.W., & Nelson, B.L. (2010). Indirect cycle time quantile estimation using the Cornish-Fisher expansion, *IIE Transactions*, 42, 31-44.

15. Bekki, J.M.* , Fowler, J.W., Mackulak, G.T., & Kulahci, M. (2009). Simulation-based cycle-time quantile estimation in manufacturing environments employing non-FIFO dispatching policies,” *Journal of Simulation*, 3, 69-83.
16. Mackulak, G.T., Fowler, J.W., Park, S.* , & McNeill, J. (2005). A three-phase simulation methodology for generating accurate and precise cycle time-throughput curves,” *International Journal of Simulation and Process Modelling*, 1(1/2), 35-48.

INVITED JOURNAL PUBLICATIONS

LEGEND Corresponding Author (*); **Bold Font**: ASU Ph.D. Student for whom Dr. Bekki is/was an advisor/co-advisor or has/had significant mentoring responsibility; **Bold Italic Font**: Non-ASU Ph.D. Student for whom Dr. Bekki had significant mentoring responsibility as related to publication; **Underline Font**: ASU Master’s Student is/was an advisor/co-advisor or has/had significant mentoring responsibility; ASU Postdoctoral Researcher (°).

1. Bekki, J.M.* , **Huerta, M.**, London, J.S., Melton, D., Vigeant, M., & Williams, J. (2018). OPINION: Why EM? An analysis of the impact of entrepreneurial mindset. [Special Issue] *Advances in Engineering Education*, 7(1): <https://advances.asee.org/wp-content/uploads/vol07/issue01/Papers/AEE-Mindset-2-Margot.pdf>
2. **Dawson, A.E.***, Bernstein, B.L., & Bekki, J.M. (2015). Providing the psychosocial benefits of mentoring to women in STEM: *CareerWISE* as an online solution. *New Directions in Higher Education*, 171, 53-62.
3. **Dawson, A.E.***, Bernstein, B.L., Bekki, J. M., & Wilkins, K. G. (2016). Teaching interpersonal communications skills: Comparing the fidelity of online simulations. *Prevention and Health Promotion: Research, Social Action, Practice and Training*, 9(1), 32-25.

JOURNAL MANUSCRIPTS SUBMITTED/ UNDER REVIEW

LEGEND Corresponding Author (*); **Bold Font**: ASU Ph.D. Student for whom Dr. Bekki is/was an advisor/co-advisor or has/had significant mentoring responsibility; **Bold Italic Font**: Non-ASU Ph.D. Student for whom Dr. Bekki had significant mentoring responsibility as related to publication; **Underline Font**: ASU Master’s Student is/was an advisor/co-advisor or has/had significant mentoring responsibility; ASU Postdoctoral Researcher (°).

1. **Ali, H***, Bekki, J.M., Roscoe, R., & McKenna, A. (Under Review) Context-Driven Adaptability of Engineering Faculty in Two Divergent Curricular Change Contexts.

INVITED BOOK CHAPTERS

Ankeman, B.E., Bekki, J.M., Fowler, J., Mackulak, G.T., Nelson, B.L., & Yang, F. (2011). Simulation in production planning: An overview with emphasis on recent developments in cycle time estimation. In K Kempf, P. Keskinocak, & R. Uzsoy (Eds.), *Planning Production and Inventories in the Extended Enterprise: A State of the Art Handbook, Volume 1* (565-592). New York: Springer Science + Business Media, LLC.

REFEREED CONFERENCE PAPERS

LEGEND Corresponding Author (*); **Bold Font**: ASU Ph.D. Student for whom Dr. Bekki is/was an advisor/co-advisor or has/had significant mentoring responsibility; **Bold Italic Font**: Non-ASU Ph.D. Student for whom Dr. Bekki had significant mentoring responsibility as related to publication; Underline Font: ASU Master's Student is/was an advisor/co-advisor or has/had significant mentoring responsibility; ASU Postdoctoral Researcher (*); (~) Presenting author.

1. **Kittur, J.**^{*,~}, Brunhaver, S., Bekki, J., Lee, E. (2021). Role of course and individual characteristics in the course-level persistence intentions of online undergraduate engineering students: A path analysis. In *Proceedings of the 2021 Research in Engineering Education Symposium (REES) & Australasian Association for Engineering Education (AEEE) Conference*.
2. **Grasty, K.**^{~,} **Sakri, S.**^{~,} Arnold, A.C., Bekki, J.M.^{*}, Wilkins-Yel, K.G., **Natarajan, M.**, Bernstein, B.L., & Randall, A.K. (2021). Benefits of utilizing counseling services among doctoral Women of Color in STEM. In *Proceedings of the 2021 American Society for Engineering Education Conference (Virtual)*, Paper ID # 32578.
3. Ali, H.^{*,~}, McKenna, A., Bekki, J.M., & Roscoe, R. (2021) Conceptualizing faculty adaptability in enacting curricular change. In *Proceedings of the 2021 American Society for Engineering Education Conference (Virtual)*, Paper ID # 34551.
4. **Kittur, J.**^{*,~}, Brunhaver, S.R., Bekki, J.M., & Lee, E. (2021). Examining the impact of interpersonal interactions on course-level persistence intentions among online undergraduate engineering students. In *Proceedings of the 2021 American Society for Engineering Education Conference (Virtual)*, Paper ID # 33888.
5. Schuyler, S.^{~,} Briseno, J.^{~,} **Natarajan, M.**, Sista, A., Wilkins-Yel, K.G., Arnold, A., Bekki, J.M.^{*}, Bernstein, B.L, and Randall, A. K. (2021) Lessons from diverse women in STEM: Acknowledging institutional challenges and empowering agency towards STEM persistence. In *Proceedings of the 2021 CoNECD (The Collaborative Network for Engineering and Computing Diversity) Conference (Virtual)*, Paper ID # 32200.
6. **Lee, E.**^{*,~}, Bekki, J.M., Carberry, A.C., & Kellam, N.K. (2021). Conceptualization and situating of sense of belonging among international engineering doctoral students: In light of the previous literature. In *Proceedings of the 2021 CoNECD (The Collaborative Network for Engineering and Computing Diversity) Conference (Virtual)*, Paper ID # 28431.
7. Arnold, A.C.^{~,} Wilkins-Yel, K.G., Bekki, J.M.^{*}, Bernstein, B.L., **Natarajan, M.**, Randall, A.K., Francies, R., & Owku, E.C. (2020). Examining the effects of STEM climate on the mental health of graduate women from diverse racial / ethnic backgrounds. In *Proceedings of the 2020 American Society for Engineering Education Conference (Virtual)*, Paper ID # 30830.
8. **Kittur, J.**^{*,~}, Bekki, J.M., & Brunhaver, S.R. (2020). Learner analytics in engineering education: A detailed account of practices used in the cleaning and manipulation of learning management system data from online undergraduate engineering courses. In *Proceedings of the 2020 American Society for Engineering Education Conference (Virtual)*, Paper ID # 29804.
9. **Lee, E.**^{*,~}, Brunhaver, S.R., & Bekki, J.M. (2020). Developing an instrument to measure online engineering undergraduate students' learning experiences and intentions to persist. In *Proceedings of the 2020 American Society for Engineering Education Conference (Virtual)*, Paper ID # 29815.

10. **Ali, H.**, **Abhyankar, R.**, Brunhaver, S.R., Bekki, J.M., Jordan, S.S., & Lande, M. (2020) An additive innovation-based faculty development program: Methods for case study research. In *Proceedings of the 2020 American Society for Engineering Education Conference (Virtual)*, Paper ID # 30696.
11. Wilkins-Yel, K., Bernstein, B.L., Bekki, J.M., & Reed, A.L. (2019). Intersectional perspectives: Interpersonal contributors to moments of doubt for graduate women of color in STEM. In *Proceedings of the 2019 CoNECD (The Collaborative Network for Engineering and Computing Diversity) Conference*, Paper ID# 24958.
12. **Lee, E.**, Bekki, J.M., Kellam, N., & Carberry, A. (2019). Understanding international engineering doctoral students' sense of belonging through their interactions with faculty and peers. In *Proceedings of the 2019 CoNECD (The Collaborative Network for Engineering and Computing Diversity) Conference*, Paper ID # 25001.
13. **Huerta, M.**, Aukes, D.M., Bekki, J.M., Brunhaver, S.R., Carberry, A.R., Holloway, J.L., Lichtenstein, G., & McKenna, A.F. (2019). The process of conceptualizing and creating the engineering faculty impact collaborative to support faculty development and mentorship. In *Proceedings of the 2019 American Society for Engineering Education (ASEE) Annual Conference*, Paper ID # 25169.
14. McKenna, A.F., Bekki, J.M., Herrmann, **M.**, **Huerta**, M.V., Pan, R., Zhu, H. (2019). WIP -- Master mentors: The process of developing a mentoring model at scale. In *Proceedings of the 2019 American Society for Engineering Education (ASEE) Annual Conference*, Paper ID #26472.
15. **Ali, H.**, Bekki, J.M., Brunhaver, S.R., Jordan, S.S., & Lande, M. (2019). Pedagogical ninjas: Using an additive innovation cycle for faculty development of teaching-focused faculty. In *Proceedings of the 2019 American Society for Engineering Education (ASEE) Annual Conference*, Paper ID # 25927.
16. Bekki, J.M., **Ayela-Uwangué, A.**, Brunhaver, S., Kellam, N., Lande, M., & McKenna, A. F. (2017). WIP: I want to try that too!: Guiding principles for interventions that encourage pedagogical risk-taking among faculty. In *Proceedings of the American Society for Engineering Education (ASEE) Annual Conference*, Paper ID# 18495.
17. McKenna, A.F., Kellam, N., Lande, M., Brunhaver, S., Jordan, S., Bekki, J., Carberry, A., & London, J. (2016) Instigating a revolution of additive innovation: An educational ecosystem of making and risk taking. In the *Proceedings of the 2016 American Society for Engineering Education (ASEE)*, Paper ID #15406.
18. **Dawson, A.**, Bernstein, B.L., Wilkins, K., & Bekki, J.M. (2015). Honing interpersonal communication skills for difficult situations: Evidence for the effectiveness of an online instructional resource. In *Proceedings of the 2015 American Society for Engineering Education (ASEE) Annual Conference*, Paper ID # 12638.
19. Bekki, J.M., Chen, X., & Batur, D. (2014). Steady-state quantile parameter estimation: Empirical comparison of stochastic kriging and quantile regression, In A. Tolk, S. D. Diallo, I. O. Ryzhov, L. Yilmaz, S. Buckley, & J. A. Miller (Eds.) *Proceedings of the 2014 Winter Simulation Conference*, pp 3880-3891.
20. **Azarnoush, B.**, Bekki, J.M., Bernstein, B.L., & Runger, G.C. (2013). An associative based approach to analyzing an online learning environment. In the *Proceedings of the 2013 American Society of Engineering Education (ASEE) Annual Conference*, Paper ID # 7142.
21. **Primé, D.**, Bernstein, B.L., **Way, A.**, **Hita, L.**, **Liddell, T.**, **Sarma, A.**, & Bekki, J.M. (2013). Development of an internet-delivered communication curriculum for graduate

- women in STEM. In *Proceedings of the 2013 American Society of Engineering Education (ASEE) Annual Conference*, Paper ID # 7544.
22. Hynes, M.*~, Carberry, A., Bekki, J.M., Lande, M., & McKenna, A. (2013). What do engineers need to know: On the economics of product design, supply chain, and manufacturing. In *Proceedings of the 2013 Research in Engineering Education Symposium (REES)*.
 23. Bekki, J.M.*~, Butler, C., & Dalrymple, O. (2012). A mastery-based learning approach for undergraduate engineering programs. In *Proceedings of the 2012 ASEE/IEEE Frontiers in Education Conference*, pp. 915 – 920.
 24. **Wilkins, K.G.~**, Bernstein, B.L., Bekki, J.M.*, Harrison, C.J., & Atkinson, R.K. (2012). Development of the science technology engineering and mathematics – active listening skills assessment (STEM-ALSA). In *Proceedings of the 2012 ASEE/IEEE Frontiers in Education Conference*, pp. 1218 – 1223.
 25. Bekki, J.M.*~, Nelson, B.L., & Fowler, J.W. (2010). Bootstrapping-based fixed-width confidence intervals for ranking and selection. In B. Johansson, S. Jain, J. Montoya-Torres, J. Hugan, & E. Yücesan (Eds.) In *Proceedings of the 2010 Winter Simulation Conference*, pp1024-1033.
 26. **Murguia, E.*~**, **Kube, E.**, Bekki, J.M., & Bernstein, B.L. (2010) *CareerWISE: An interdisciplinary experience for graduate students*. In *Proceedings of the 2010 ASEE Annual Conference and Exposition*, Paper ID AC 2010-2235).
 27. Doss, A.N.*~, Bekki, J.M., Henderson, M., Akhavan, O., & Tsang, J. (2010) Creating supply chains for new ventures in developing countries. In *Proceedings of the National Collegiate Inventors and Innovators Alliance 2010 Annual Conference*.
 28. **Rohlfing, J.~**, **Yabko, B.**, **Kube, E.**, **Murguia, E.**, Bekki., J.M.*, & Bernstein, B.L. (2009) Improving STEM doctoral students' relationships with their advisors: Web-based training in interpersonal problem solving. In *Proceedings of the 2009 ASEE Annual Conference and Exposition* , Paper ID AC 2009-2235.
 29. Bekki, J.M.*~, Bernstein, B.L., Ellison, K., Sridharan, A., Hita, L., Spadola, Q. (2008). Work in progress: Using case studies to increase the retention of female doctoral students in STEM fields. In *Proceedings of the 38th ASEE/IEEE Frontiers in Education Conference*, pp. T4F9-T4F10.
 30. Bekki, J.M.*~, Fowler, J.W., Mackulak, G.T., & Nelson, B.L. (2007). Using quantiles in ranking and selection procedures. In S. G. Henderson, B. Biller, M.-H. Hsieh, J. Shortle, J. D. Tew, & R. R. Barton (Eds.) *Proceedings of the 2007 Winter Simulation Conference*, pp. 1722-1728).
 31. Bekki, J.M.*~, Mackulak, G.T., & Fowler, J.W. (2006). Indirect cycle-time quantile estimation for non-FIFO dispatching policies. In L.F. Perrone, F.P. Wieland, J. Liu, B.G. Lawson, D.M. Nicol, & R.M. Fujimoto (Eds.) *Proceedings of the 2006 Winter Simulation Conference*, pp. 1829 – 1835.
 32. McNeill, J.*~, Nelson, B.L., Fowler, J.W., & Mackulak, G.T. (2005). Cycle-time quantile estimation in systems employing dispatching rules. In E. Kuhl, N. M. Steiger, F. B. Armstrong, & J. A. Joines (Eds.) *Proceedings of the 2005 Winter Simulation Conference*, pp.751-755.
 33. McNeill, J.*~, Mackulak, G.T., & Fowler, J.W. (2003). Indirect estimation of cycle time quantiles from discrete event simulation models using the Cornish-Fisher expansion. In S.

Chick, P. J. Sánchez, D. Ferrin, & D. J. Morrice (Eds.), *Proceedings of the 2003 Winter Simulation Conference*, pp. 1377 – 1382.

PEER-REVIEWED CONFERENCE PRESENTATIONS

LEGEND Corresponding Author (*); **Bold Font**: ASU Ph.D. Student for whom Dr. Bekki is/was an advisor/co-advisor or has/had significant mentoring responsibility; **Bold Italic Font**: Non-ASU Ph.D. Student for whom Dr. Bekki had significant mentoring responsibility as related to publication; **Underline Font**: ASU Master's Student is/was an advisor/co-advisor or has/had significant mentoring responsibility; ASU Postdoctoral Researcher (°); (˘) Presenting author.

1. Briseño, J.˘, Moseley, A., Schuyler, S., Hocker, L., Randall, A. K., Wilkins-Yel, K. G., Bekki, J., & Bernstein, B. (2021) *Challenges faced by Black and Latinx Graduate Women in STEM During COVID-19: A Content Analysis*. Annual American Psychological Association Convention (Virtual).
2. Hocker, L.˘, Moseley, A., Briseño, J., Schuyler, S., Randall, A. K., Wilkins-Yel, K. G., Bekki, J., & Bernstein, B. (2021) *The Impact of the COVID-19 and Racism Pandemics on Women of Color in STEM Caring for Children*. Annual American Psychological Association Convention (Virtual).
3. Wilkins-Yel, K.G.˘, Bernstein, B.L., Bekki, J.M., Arnold, A.C., **Natarajan, M.W.**, Francies, R.F., Coley, C.E., & Randall, A.K. (2020) *Understanding the Impact of STEM Climate on the Mental Health of Graduate Women from Diverse Racial / Ethnic Backgrounds*. American Psychological Association Convention (Virtual).
4. Arnold, A.˘, Francies, R.˘, Bernstein, B. L., Wilkins-Yel, K.G., Bekki, J.M., & Okwu, C.E. (2019). *Benefits of Counseling for Women Experiencing Challenges in STEM Doctoral Programs*. American Psychological Association Convention, Chicago, IL.
5. Wilkins-Yel, K.˘, Bernstein, B.L., Bekki, J.M., Zounlome, N. O.O & Reed, A. (2019). *Understanding Interpersonal Contributors to Moments of Doubt for Graduate Women of Color in STEM*. American Psychological Association Convention, Chicago, IL
6. **McBurnett, L.R.**˘, Bekki, J.M., Kellam, N. (2019). *Complex Systems Approach for Interpreting Educational System Dynamics*. American Educational Research Association (AERA) Annual Meeting, Toronto, Canada.
7. McKenna, A.F.˘, Kellam, N., Lande, M., Brunhaver, S., Jordan, S., Carberry, A., Bekki, J., & London, J. (2016). *Capturing the Ecosystem and Culture to Support Risk-Taking and Additive Innovation: Laying the Groundwork*. Envisioning the Future of Undergraduate STEM Education: Research and Practice Symposium, American Association for the Advancement of Science (AAAS) and the National Science Foundation's Division of Undergraduate Education, Washington, D.C.
8. **Dawson, A.E.**˘, Bernstein, B.L, Bekki, J.M, & **Wilkins, K.G.** (2015). *Teaching Interpersonal Communication Skills: Comparing the Fidelity of Online Simulations*. American Psychological Association Convention, Toronto, CA.
9. **Primé, D. R.**˘, Bernstein, B. L., **Wilkins, K. G.**, Bekki, J. M., & Yel, N. (2015). *A Model of Factors that Predict Women's Intention to Persist in STEM Programs and Careers*. American Psychological Association Convention, Toronto, CA.
10. **Wilkins, K. G.**˘, Bernstein, B. L., Bekki, J. M., & **Prime, D. R.** (2015). *Women Communicating in STEM: Effectiveness of Online Training via Text and Interactive Simulations*. American Psychological Association Convention, Toronto, CA.

11. **Dawson, A.E.**^{*~}, Bernstein, B.L., & Bekki, J.M. (2014). *Graduate Persistence and Psychosocial Mentoring for Women in STEM: An Online Approach for Addressing the Need*. Association for the Study of Higher Education (ASHE) Annual Conference, Washington, DC.
12. **Primé, D.**^{*~}, Bernstein, B.L., **Wilkins, K.G.**, Bekki, J.M., & **Dawson, A.E.** (2014). *An Examination of the Impact of Barriers for At-Risk Doctoral Women in Science and Engineering*, American Psychological Association Convention, Washington, DC.
13. **D. Primé**^{*~}, B.L. Bernstein, **K.G. Wilkins**, & J.M. Bekki. (2013). *Measuring the Advising Relationship: An Emerging Structure for Female Graduate Students in Science, Technology, Engineering, and Mathematics*, American Psychological Association Convention, Honolulu, HI.
14. **Dawson, A.E.**^{*~}, Bernstein, B.L., Harrison, C.J.^x, Bekki, J.M., & **Primé, D.** (2013). *Mentors for Women in STEM: Documenting and Filling the Void*, American Psychological Association Convention, Honolulu, HI.
15. **Wilkins, K.G.**^{*~}, Bernstein, B. L., Bekki, J.M., & **Primé, D.** (2013). *Measuring Interpersonal Communication Skills: Development of the STEM-Communication Skill Assessment Battery*, American Psychological Association Convention, Honolulu, HI.
16. Bernstein, B.L.^{*~}, Bekki, J.M., Smith, M.L., & Harrison, C.J.^x (2012). *Effectiveness of an Online Intervention for STEM Women*. American Psychological Association Convention, Orlando, FL.

NON-REFEREED CONFERENCE PRESENTATIONS

LEGEND Corresponding Author (*); **Bold Font**: ASU Ph.D. Student for whom Dr. Bekki is/was an advisor/co-advisor or has/had significant mentoring responsibility; **Bold Italic Font**: Non-ASU Ph.D. Student for whom Dr. Bekki had significant mentoring responsibility as related to publication; **Underline Font**: ASU Master's Student is/was an advisor/co-advisor or has/had significant mentoring responsibility; ASU Postdoctoral Researcher (*); (~) Presenting author.

1. Wilkins-Yel, K.^{*~}, Bekki, J.M.[~], and Bernstein, B.L.[~] (2021) *Sounding the Alarm: Addressing Racism, COVID-19, and Mental Health in Science*. American Association for the Advancement of Science (AAAS) Annual Meeting (Virtual).
2. **Demeritas, A.**^{*~}, Bekki, J.M., Gel, E., & Runger, G.C. (2015). *A Learner-Analytics Based Approach for Attenuating the Course-Level Dropout Rate*. Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting, Philadelphia, PA.
3. Bekki, J.M.[~] & Batur, D.^{*} (2014). *Building Metamodels for Cycle Time Quantiles in Manufacturing Systems*. Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting, San Francisco, CA.
4. Batur, D.^{*~} & Bekki, J.M. (2014). *Regression-Based Metamodeling in Estimation of Cycle Time Quantiles in the semiconductor manufacturing industry*. Production and Operations Management Society (POMS) Annual Meeting, Atlanta, GA.
5. Azarnoush, B., Bekki, J.M., & Runger, G.C. (2013). *Monitoring a Dynamic Network*. Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting, Minneapolis, MN.
6. Batur, D. & Bekki, J.M. (2013). *Estimating Cycle Time Quantiles Using Quantile-Regression Based Metamodels*. Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting, Minneapolis, MN.

7. **Azarnoush, B.*~**, Bekki, J.M., Runger, G.C., Bernstein, B.L., & Atkinson, R.K. (2012). *Towards the Personalization of an Online Learning Environment*. Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting, Phoenix, AZ.
8. McNeill, J., Mackulak, G.T., Fowler, J.W., & Nelson, B.L. (2005). *Estimating Quantiles in Manufacturing Systems*. Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting, San Francisco, CA.
9. McNeill, J.*~, Nelson, B.L., Fowler, J.W., & Mackulak, G.T. (2005). *Cycle Time Quantile Estimation in Systems Operating Under Non-FIFO Environments*. TechCon, San Diego, CA.
10. McNeill, J.*~, Mackulak, G.T., Fowler, J.W., & Nelson, B.L. (2004). *Indirect estimation of cycle time quantiles from discrete event simulation*. Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting, Denver, CO.
11. McNeill, J.*~, Fowler, J.W., & Mackulak, G.T. (2002). *Procedures for Efficient Cycle-Time Throughput Curve Generation*. Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting, San Jose, CA.

INVITED PRESENTATIONS – ASU INTERNAL

1. Bekki, J.M., Garcia, M., and Ward, Kristen W. (2021). *Promising Practices for Effective Student Mentorship: Learn, Practice, Lunch, Faculty Development Workshop*, Fulton Schools of Engineering, Arizona State University.
2. Wilkins-Yel, K.M. & Bekki, J.M. (2021) *Voices of Diverse Doctoral Women in STEM: Shedding Light on the Importance of Support and the Impact of the STEM Climate on Mental Health and Persistence*, Engineering Education Systems and Design (EESD) Program, Arizona State University
3. Artiles, M., and Bekki, J.M. (2020) *Toward Effective Support of Black Doctoral Students*, Faculty Development Workshop, Engineering Education Systems and Design (EESD) Program, Arizona State University.
4. Bernstein, B.L. & Bekki, J.M. (2018) *Perspectives & Findings on Graduate Student Mentorship*, Engineering Education Systems and Design (EESD) Program, Arizona State University.
5. Bekki, J.M. (2017). *Supporting Women Graduate Students in Engineering and the Physical Sciences*, Engineering Education Systems and Design (EESD) Program, Arizona State University.

INVITED PRESENTATIONS – EXTERNAL

1. Bekki, J.M. & Kellam, N. (2015). *Additive Innovation: An Educational Ecosystem of Making and Risk Taking*. University of New Mexico.

PROFESSIONAL ACTIVITIES AND SERVICE

PROGRAM / SCHOOL LEVEL LEADERSHIP

- Associate Director, The Polytechnic School, August 2020 - present
- (Inaugural) Graduate Program Chair, Engineering Education Systems and Design PhD Program, The Polytechnic School, October 2015 – July 2019

ASU SEARCH COMMITTEE PARTICIPATION

Role	Position Sought	Organizational Level/Unit	Time Period
Chair	Engineering Education T/TT	The Polytechnic School, Fulton Schools of Engineering	Fall 2021 - Present
Chair	Engineering Education T/TT	The Polytechnic School, Fulton Schools of Engineering	Fall 2019 – Spring 2020
Chair	Engineering Education T/TT	The Polytechnic School, Fulton Schools of Engineering	Fall 2016 – Spring 2017
Chair	Advanced Manufacturing T/TT	The Polytechnic School, Fulton Schools of Engineering	Fall 2015 – Spring 2016
Chair	Advanced Manufacturing T/TT	The Polytechnic School, Fulton Schools of Engineering	Fall 2014 – Spring 2015
Member	School Director	The Polytechnic School, Fulton Schools of Engineering	Fall 2021 - Present
Member	Engineering Education T/TT	The Polytechnic School, Fulton Schools of Engineering	Fall 2018 – Spring 2019
Member	Engineering Lecturer	The Polytechnic School, Fulton Schools of Engineering	Spring 2015 – Summer 2015
Member	Manufacturing Lecturer	The Polytechnic School, Fulton Schools of Engineering	Summer 2014
Member	Manufacturing Technology T/TT	College of Technology and Innovation	Fall 2011 – Spring 2012
Member	Engineering T/TT	Engineering Department, College of Technology and Innovation	Fall 2010 – Spring 2011

(NON-SEARCH-COMMITTEE) ASU COMMITTEE PARTICIPATION

Committee Name	Organizational Unit	Role	Time Period (AY = Academic Year)
Academic Program Review Committee	The Polytechnic School, Fulton Schools of Engineering	Chair	2020 – 2021 AY
Executive Committee	Engineering Education Systems and Design PhD Program, The Polytechnic School, Fulton Schools of Engineering	Chair	2015 – 2016 AY 2016 – 2017 AY 2017 – 2018 AY 2018 – 2019 AY
Manufacturing Engineering Curriculum Development Group	Department of Engineering, College of Technology and Innovation	Chair	2012 – 2013 AY
Personnel Committee	The Polytechnic School, Fulton Schools of Engineering	Chair	2017 – 2018 AY 2020- 2021 AY
Freshman Design Teaching Team	Engineering Program, The Polytechnic School,	Course Coordinator,	2014 – 2015 AY 2015 – 2016 AY

	Fulton Schools of Engineering	EGR 101 (Intro to Engineering Design)	Fall 2016
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Committee Name	Organizational Unit	Role	Time Period (AY = Academic Year)
Sophomore Design Teaching Team	Engineering Program, The Polytechnic School, Fulton Schools of Engineering	Course Coordinator, EGR 201 (Use Inspired Design Project)	Fall 2018
By-Law Development Committee	The Polytechnic School, Fulton Schools of Engineering	Member	Summer 2014
Curriculum Committee	Fulton Schools of Engineering	Member	2014 – 2015 AY
Executive Committee	Simulation Modeling and Application Cognitive Science PhD Program, College of Technology and Innovation	Member	2011 – 2012 AY 2012 – 2013 AY 2013 – 2014 AY 2014 – 2015 AY
Higher Learning Commission, Criterion 3 Committee	Arizona State University	Member	Fall 2021 - Present
Limited Submissions Proposal Review Committee	Fulton Schools of Engineering	Member	2018 – 2019 AY 2019 – 2020 AY 2020 – Present
Master (Faculty) Mentor for The Polytechnic School	Fulton Schools of Engineering	Member	2018 – 2019 AY 2019 – 2020 AY 2020 – 2021 AY
Outstanding Faculty Mentor Awards Reviewer	The Graduate College	Member	2020 – 2021 AY Award Cycle
Personnel Committee	The Polytechnic School, Fulton Schools of Engineering	Member	2015 – 2016 AY 2016 - 2017 AY 2018 – 2019 AY
Polytechnic School Transition Advisory Group (focus on Fulton Schools of Engineering restructuring)	Fulton Schools of Engineering	Member	Summer 2021
Recruitment and Retention Taskforce	College of Technology and Innovation	Member	2011 – 20212 AY
Scholarship Review Committee	College of Technology and Innovation	Member	2013 – 2014 AY
School of Manufacturing Systems and Networks Advisory Group (focus on Fulton Schools of Engineering restructuring)	Fulton Schools of Engineering	Member	Summer 2021

Strategic Plan Development Committee	Department of Engineering, College of Technology and Innovation	Member	Spring 2013
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Committee Name	Organizational Unit	Role	Time Period (AY = Academic Year)
The Polytechnic School Curriculum Committee	The Polytechnic School, Fulton Schools of Engineering	Member	2019 – 2020 AY
Undergraduate Curriculum Committee	The Polytechnic School, Fulton Schools of Engineering	Member	2014 – 2015 AY 2015 – 2016 AY

OUTREACH / ENGAGEMENT ACTIVITIES

- Faculty advisor for the Women in Science and Engineering (WiSE) student club, 2014 – 2015; 2015 – 2016; 2019 – 2020 AY
- Co-Faculty Advisor, Polytechnic Engineering Nerds (PEN) student club, 2008 – 2009; 2009 – 2010 AY

PROFESSIONAL ENGAGEMENT ACTIVITIES

- External evaluator (1 of 2 selected by the State of New York Board of Education) for new PhD + MS Degrees in Engineering Education at University of Buffalo, Spring 2020
- Co-chair, American Society for Engineering Education (ASEE) Educational Research & Methods Division Apprentice Faculty Grant Committee, October 2017 – July 2019
- Mentor, *Journal of Engineering Education* Mentored Reviewer Program, 2020
- Coach, *Journal of Engineering Education* Mentored Reviewer Program, 2021 – Present

REVIEW ACTIVITIES

- Reviewer for National Science Foundation panels: Directorate for Education and Human Resources
- Reviewer for the following conferences:
 - Winter Simulation Conference (2004; 2005; 2006; 2007; 2008; 2010)
 - American Society of Engineering Education (ASEE) Annual Conference (2013; 2015; 2016; 2017; 2018; 2019; 2020; 2021)
 - CoNECD (The Collaborative Network for Engineering and Computing Diversity): (2019; 2021; 2022)
- Reviewer for the following journals
 - *Advances in Engineering Education*
 - *Journal of Engineering Education*
 - *Journal of Women and Minorities in Science and Engineering*
 - *European Journal of Operational Research*
 - *Simulation Modelling Practice and Theory*
 - *Production Planning and Control*
 - *International Journal of Production Research*

- *SIMULATION: Transactions of the Society of Modelling and Simulation, Transactions on Modeling and Computer Simulation*

ADVISORY BOARD MEMBERSHIP

Project Name	Project PI(s)	Funding Agency	Time Period
Collaborative Research: Researching How You Teach Holistic Modeling (RHYTHM)	Kelsey Rodgers & Matthew Verleger, Enbry-Riddle; Jacqueline McNeill, University of Louisville; Farshid Marbouti, San Jose State University	National Science Foundation	2018 - 2021
CAREER: Ready, Set, Change! Investigating Career Adaptability in Early Career Engineers	Samantha Brunhaver, Arizona State University	National Science Foundation	2020 – 2025
CAREER: Framing and Reframing Agency in Making and Engineering (FRAME)	Vanessa Svihla, University of New Mexico	National Science Foundation	2018-2022
NSF Collaborative Research: Workshops to Develop a Community-Informed Framework Characterizing the Impact of Engineering Education	Jeremi London, Virginia Tech; Maura Borrego, UT Austin	National Science Foundation	2016-2019
CAREER: Advancing STEM Persistence among Graduate Women of Color through an Examination of Institutional Contributors and Deterrents to Mental Health	Kerrie Wilkins-Yel, University of Massachusetts Boston	National Science Foundation	2021-2026

RESEARCH SUPPORT

Summary

Total amount of all external awards in which Dr. Bekki is the PI or Co-PI: \$15,652,403

Dr. Bekki's share (recognition) in all external awards as PI or Co-PI: \$2,048,868

Total amount of all external awards in which Dr. Bekki is PI: \$726,739

Dr. Bekki's total research expenditures as of 10/7/2021: \$1,689,548

EXTERNALLY FUNDED PROJECTS

1. *Collaborative Research: What Black Doctoral Students in STEM Want and What Their Faculty are Giving: How the Differences Impact Students' Mental Health and Career Trajectory Decisions*. Role: Co-PI. [PI: Brooke Coley] Funding Agency: National Science Foundation. Total Award: \$744,986 (Bekki share/recognition 40%: \$297,986), 2021 – 2024.

2. *Collaborative Research. CW III: Intersectional Perspectives on Associations Between Perceived Supports & Underrepresented Minority Women's Persistence in STEM PhD Programs.* Role: PI. Funding Agency: National Science Foundation. Total Award: \$726,739 (Bekki share/recognition, 36%: \$261,626), 2018 – 2022.
3. *Research: Staying the Course: Understanding the Motivational Factors Contributing to Persistence Among Undergraduate Engineering Students in Online Courses.* Role: Co-PI [PI: Samantha Brunhaver] Funding Agency: National Science Foundation. Total Award: \$372,370 (Bekki share/recognition 50%: \$186,185), 2018-2022.
4. *Transforming Engineering Education through Student & Faculty Mindset Development – Phase III.* Role: Co-Investigator. [PI: James Collofello]. Funding Agency: Kern Family Foundation. Total Award: \$3,542,247 (Bekki share/recognition 5%: \$177,142), 2018 – 2021.
5. *Mentoring Engineering Faculty to Professional Impact.* Role: Co-Investigator [PI: Ann McKenna]. Funding Agency: Kern Family Foundation. Total Award: \$3,206,714 (Bekki share/recognition 10%: \$320,671), 2018 – 2021.
6. *IUSE/PFE RED: Instigating a Revolution of Additive Innovation: An Educational Ecosystem of Making and Risk Taking.* Role: Co-PI. [PI: Ann McKenna]. Funding Agency: National Science Foundation. Total Award: \$1,993,593 (Bekki share/recognition 9%: \$179,423), 2015 – 2021.
7. *Transforming Engineering Education through Student & Faculty Mindset Development: Establishing a National Engineering Faculty Training Collaborative and Model EM University.* Role: Co-Investigator. [PI: Ann McKenna]. Funding Agency: Kern Family Foundation. Total Award: \$2,860,039 (Bekki share/recognition 5%: \$143,000), 2015 – 2018.
8. *Large Empirical Emerging Topics: CareerWISE II: Enhanced Resilience Training for STEM Women in an Interactive, Multimodal Web-Based Environment.* Role Co-PI [PI: Bianca Bernstein]. Funding Agency: National Science Foundation. Total Award: \$1,999,164 (Bekki share/recognition 20%: \$399,833), 2009 – 2015.

INTERNALLY FUNDED PROJECTS

1. *FSE Equity Book Club*, Role: Co-PI [PI: Brooke Coley]. Internal funding agency: the Diversity and Inclusion Initiative (DII) @ FSE RAPID DII: Fostering Diversity and Inclusion in a Digital Environment. Total Award: \$7800 (Bekki share / recognition 50%: \$3900)

STUDENT SUPERVISION / MENTORING AND TEACHING

Summary of Student Mentorship

PhD students graduated as chair or co-chair: 3

PhD students current as chair or co-chair: 1

PhD students mentored + published refereed works with (see publications list): 22

PhD student committee membership: 10

MS thesis students graduated: 2

MS project students graduated: 3

Undergraduate projects supervised: 4

Doctoral Students Chaired or Co-Chaired:

Student Name	Degree Program	Dissertation Title	Graduation Date	Post-Graduation Job Placement
Bahareh Azarnoush	Industrial Engineering	Holistic Learning for Multi-Target and Network Monitoring Problems	December 2014	Netflix (Data Scientist)
Eunsil Lee	Engineering Education Systems and Design	Re-thinking Engineering Doctoral Students' Sense of Belonging: In Consideration of Diversity in Citizenship and Interpersonal Interactions	August 2020	Visiting Assistant Professor, Virginia Tech
Lauren Naufel	Systems Engineering	Complex Systems Approach for Simulation & Analysis of Socio-Technical Infrastructure Systems: An Empirical Demonstration	May 2020	Post Doctoral Scholar, Arizona State University
Javeed Kittur	Engineering Education Systems and Design	Understanding the Factors Influencing Students' Persistence Decisions in Undergraduate Online Engineering Courses	August 2022	TBD

Doctoral Student Committee Membership

Student Name	Degree Program	Graduation Date
Hadi Ali	Engineering Education Systems and Design	Expected December 2021
Rohini Abhyankar	Engineering Education Systems and Design	Expected May 2022
Michael Sheppard	Engineering Education Systems and Design	December 2020
Aysegul Deremitas	Industrial Engineering	May 2018
Sandra Hinski	Simulation, Modeling, and Applied Cognitive Science	December 2017
Mustafa Demir	Simulation, Modeling, and	May 2017

	Applied Cognitive Science	
Chia-Yuan Chuang	Simulation, Modeling, and Applied Cognitive Science	August 2015
Qing Liu	Simulation, Modeling, and Applied Cognitive Science	August 2015
Emily Hildebrand	Simulation Modeling, and Applied Cognitive Science	August 2014
Natalie Fabert	Counseling Psychology	August 2014

MS Students Chaired or Co-Chaired

Student Name	Degree Program	Thesis/Project	Title	Graduation Date
Clinton Michael	Engineering	Applied Project	Capacity Analysis Using a Discrete Event Simulation and Empirical Model	May 2016
Rishikesh Nimma	Engineering	Thesis	Examining the Impact of experimental Design Strategies on the Predictive Accuracy of Quantile Regression Metamodels for Computer Simulations of Manufacturing Systems	August 2016
Tanushree Salvi	Mechanical Engineering	Thesis	Analyzing Controllable Factors Influencing Cycle Time Distribution in Semiconductor Industries	May 2017
Roshan Rosario Hilary Verghees	Engineering	Project	Determining the Factors Affecting Cycle Time and Maximum Lateness Using DES Through Design of Experiments	May 2017
Arjun Ramachandran	Engineering	Project	Report on Simulation Modeling and Analysis	August 2017

UNDERGRADUATE STUDENT PROJECT MENTORING

- Sponsored Captstone Project: Shared Hosting Customer Experience Monitoring System. Sponsored by Go-Daddy (Company Mentor: Brian Curcio), funded at \$25,000, 2010 – 2011.
- Sponsored Captstone Project: Shared Hosting Customer Experience Monitoring System (cont'd). Sponsored by Go-Daddy (Company Mentor: Brian Curcio), funded at \$25,000, 2011 – 2012.
- Honors contract advisor, EGR 280: Engineering Statistics. Application of Experimental Design to Optimize Robot Design. Fall 2012, seven students completed the project.
- Sponsored Captstone Project: Smoker Characterization and Optimization. Sponsored by Joe's Real BBQ (Company Mentors: Joe Johnston & Tad Peelen), funded at \$10,000, 2013 – 2014.

COURSES TAUGHT

- ASU 101: The ASU Experience
- EGR 101: Introduction to Engineering Design
- EGR 102: Introduction to Engineering Design II
- EGR 201: Use-Inspired Design Project I
- EGR 202: Spring Multidisciplinary Design Project
- EGR 227: Manufacturing Processes I
- EGR 239: Engineering Economics
- EGR 280: Engineering Statistics
- EGR 294: Design of Experiments
- EGR 318: Manufacturing Systems Project II
- EGR 382: Modeling Manufacturing Systems
- EGR 572: Quantitative Methods for Engineering Education Research
- EGR 581: Simulating Manufacturing Systems
- EGR 598: Topic: Simulating Manufacturing Systems
- EGR 608: Advanced Simulation
- EGR 673: Applications of Quantitative Methods for Engineering Education Research
- MET 415/515: Manufacturing Simulation
- MFG 382: Modeling Manufacturing Systems
- SMC 521: Methods / Tools Simulation Modeling
- SMC 541: Foundations / Simulation Modeling

OTHER PROFESSIONAL ACTIVITY

EDUCATION

- **PhD**, Industrial Engineering, Arizona State University, 2008
- **MSE**, Industrial Engineering, Arizona State University, 2006
- **BSE**, Bioengineering, Arizona State University, 1998

PROFESSIONAL DEVELOPMENT ACTIVITIES

- ASU peerLA (peer Leadership Academy), Arizona State University, Nominated, Selected, and Participated in the 2019 –2020 cohort

- Frontiers of Engineering Education (FOEE) Symposium, National Academy of Engineering, Nominated, Selected, and Participated in the 2013 Cohort

PROFESSIONAL MEMBERSHIPS

- American Society for Engineering Education (ASEE)
- Omega Rho (Operations Research and Management Science Honor Society)

HONORS AND AWARDS

- DII@FSE Diversity and Inclusion Award (Fulton Schools of Engineering level award), Nominated, 2021
- Top 5% Teaching Faculty, 2019, Fulton Schools of Engineering, Arizona State University, Awarded, 2019
- Teaching Recognition Award, Department of Engineering, Arizona State University, Awarded, 2013
- Excellence in Diversity Award, College of Technology and Innovation, Arizona State University, Awarded, 2012
- Distinguished Doctoral Student Achievement Award, Faculty Women's Association, Arizona State University, Awarded, 2007
- Intel/Semiconductor Research Corporation Doctoral Fellowship, Awarded, 2003 – 2008

INDUSTRIAL EXPERIENCE

- Discrete Event Simulation Modeling Consultant, January 2008 – May 2008
 - Microchip Technology, Inc (Chandler, AZ) January 2008 – May 2008
- Manufacturing Modeling Engineer, (January 2001 – August 2001)
 - Operational Decision Support Technology Group at Intel – Chandler, AZ