LOIS CALIAN TRAUTVETTER

OFFICE

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EDUCATION

1991 <u>Doctor of Philosophy (Ph.D.)</u>

Higher Education Administration

University of Michigan Ann Ann Arbor, Michigan

Dissertation: Gender Differences Predicting Faculty Publication Output in

the Natural Sciences

- Rackham Dissertation Fellowship (1990-91)
- Aaron Burke Hinsdale Award for School of Education (1989-90)
- School of Education, Dean's Fellowship (1988)
- School of Education, HACE Merit Award (1987)

1986 Master of Science in Chemical Engineering (M.S.)

Carnegie Mellon University Pittsburgh, Pennsylvania Chemical Engineering: Colloids, Polymers, and Surfaces

1982 Bachelor of Arts (B.A.)

College of Wooster Wooster, Ohio

Chemistry Honors

Senior Thesis: Water Content and Elemental Analysis of Cataractous and Normal Lenses by DSC Microcalorimetry and ICP Emission Spectrometry

- Galpin Outstanding Senior Award (Scholastic/Extracurricular (1982)
- Iota Sigma Pi National Chemistry Honor Society (1982)
- President of Outstanding Chapter, American Chemical Society (1980 81)
- Francis Twinem Scholarship (1981 82)
- Presbyterian Scholar (1978 82)
- Freshman Scholar of the College of Wooster (1978 79)

PROFESSIONAL EMPLOYMENT AND EXPERIENCE

1992-present Northwestern University

Evanston, Illinois

- Professor, School of Education and Social Policy (2017 present)
- Director, MS in Higher Education Administration and Policy (2011-present)
- Associate Professor, School of Education and Social Policy (2011-17)
- Assistant Professor, School of Education and Social Policy (2006-2011)
- Associate Director, Higher Education Administration and Policy (2006-2011)
- Lecturer, School of Education and Social Policy and Coordinator, Higher Education Administration and Policy Program (2003-2006)
- Academic Advisor/Instructor/Consultant (1996-2003, part-time)

Direct the Master of Science in Higher Education Administration and Policy Program in Northwestern University's School of Education and Social Policy. Teach graduate courses in administration of higher education, student services administration, current issues in higher education and student affairs, college student development, and research methodology and action research. These courses include College Student, Research and Analysis I, II, and III (culminates in a master's thesis project for both higher education and teacher education students), Navigating the Organization and Your Career (class with internship), and Higher Education Administration Seminar. Direct the Higher Education Administration and Policy program through advising, marketing and recruitment, and assessment. Responsibilities include handling student issues, coordinating and being a liaison with the Higher Education Advisory group and to adjunct faculty members by responding to academic and curricular issues, and marketing the program. The Higher Education Administration program enrollment has grown by over 1000% under my leadership and the redesign of the program's curriculum starting in 2003; including certificates in blended learning and online noncredit bearing certificate(s).

Research:

Currently co-investigator on John Templeton Foundation and LSST, Inc. grant titled "Contribution to the Implementation and Study of the LSST" (Total award was approximately \$9M). NUFinancials Award and Project Number: SP0076892, 60063972. Sponsor Award Number: 2022-62192-4-Trautvetter Project Period End date: 05/31/2023. Jennifer Solokoski is PI (Columbia University and LSST, Inc.).

We will share best practices for mentoring the science fellows who began in October 2022, and contribute to their professional development in year 1 of the program. We will also coordinate to determine the application and selection processes for recruiting the first cohort of social science fellows in January 2023. Here is a link that was shared on Northwestern News and featured on the homepage for a while in August 2021:

https://news.northwestern.edu/stories/2021/08/astrophysicis ts-social-scientists-to-probe-the-universes-deepestmysteries-vera-rubin-observatory

Received a supplement to above grant of \$249,390 of a larger Templeton and LSST, Inc., as an additional supplement for senior social scientists for \$1.2M in total. The supplement is for my research, mentorship, and work on the Catalyst Steering Committee activities for the next 4 years is titled: "Establishing a Templeton LSST Early-Career Research Fellowship" from July 15, 2022-July 14, 2026). The research involves a research agenda encompassing three core themes: 1) Diversity and community impact; 2) The democratization of astronomical data; 3) Collaborative teams. The research I hope to conduct falls under mostly the 1 and 3 themes from above: diversity and community impact and collaborative teams. Both the LSST community and the Catalyst Fellowship present new models of mentoring, teamwork, and collaboration that may transform the field. The LSST community is unique in its multi-disciplinary composition (including not only astrophysicists but also high energy physicists, computer scientists, and engineers), methodological and technical breadth, and modes of collaboration (e.g., huge numbers of collaborators working with one 'dataset'). The Catalyst Fellowship is unique in its reliance on mentoring committees, comprising members from both astrophysics and the social sciences. Thus, the professional relationships that form through and around the Catalyst Fellowship may very well challenge our understanding of scientific teams, which is drawn largely from studies of smaller and more homogenous teams in the burgeoning area of Science of Team Science (SciTS). The LSSTC Catalyst Fellowship is distinctive among prestigious astronomy fellowships in its deliberate embrace of diversity and community impact throughout recruitment, selection, support, mentoring, interdisciplinary and international collaboration, and fellowship activities. Given this historical moment of heightened awareness to justice, equity, and inclusion as well as repeated studies showing how science benefits from diverse teams, I have studied undergraduates, graduate students, and faculty in STEM and am eager to understand the individuals who co-developed and participate in this unique

community. What sets them apart? How is their scientific work synergistic with and enhanced by their commitments to DEIJ? We hope to do this by content-analyzing fellows' application materials, and interviewing and surveying both the postdoctoral fellows and the LSST community members and mentors. By broaching topics like mentoring, collegiality, work expectations and feedback, timeuse, professional and personal stressors, community impact expectations, career development and aspirations, and perceived career success, we aim to answer the following research questions: 1) What practices and opportunities are most successful in buttressing postdoctoral fellows' careers and/or in broadening the diversity of the field? 2) How are Catalyst fellows socialized and integrated into the LSST network? 3) What are the greatest barriers and challenges (e.g., career advancement, well-being, work-life balance, productivity) faced by members of the LSST community? 4) To what extent do Catalyst Fellows, researchers, and other community members develop collaborative relationships and shared frames of reference, concepts, and practices? And 5) How is a culture that is amenable to convergent approaches (e.g., shared communication, research knowledge and practices) developed? By studying the Catalyst Fellows, the LSST community, and the environmental and cultural context, we will be able to identify factors that promote successful and satisfying careers, and develop new models of how to build and support diverse and stimulating scientific communities.

Co-PI of NSF NRT_DSE grant: The National Science Foundation awarded a grant of \$2,966,598 to Northwestern University for support of the project. This project, entitled "NRT-DESE: Training in Data-Driven Discovery - From the Earth and the Universe to the Successful Careers of the Future," is under the direction of Vassiliki Kalogera, Diego Klabjan, Suzan van der Lee, Lois C. Trautvetter, Aggelos K. Katsaggelos. This award ends August 31, 2021.

Worked as a co-principal investigator in a NSF funded project, "Prototyping the Engineer of 2020: A 360-Degree Study of Effective Education." The study provided guidance for engineering education by accomplishing two goals: 1) identifying case studies from engineering schools and programs that are currently producing graduates who closely resemble the engineer of 2020, and 2) identifying and analyzing in detail the curricular, pedagogical, cultural, and organizational features of those programs that support high-quality and innovative engineering education that is well-aligned with the goals of the Engineer of

2020. The study investigated the development of three attributes of the Engineer of 2020: design and problem-solving skills, interdisciplinary competence and contextual competence. Case study reports were distributed for Howard University and MIT.

Also conducted research on faculty development, student development, organizational change, and teaching and learning in postsecondary institutions. Specifically, worked on a Lilly Foundation and John Templeton Foundation funded project titled: "Promoting Student Development Through Faculty Development." This involved an examination of how church-related colleges foster holistic student development in and out of the classroom, and included data from a survey of Chief Academic Officers from over 250 institutions and in depth case studies of faculty, administrators, and students from ten church-related colleges. The results were presented in a book titled, Putting students first: How colleges develop students purposefully (Jossey Bass, 2006), designed to provide conceptual grounding and practical advice for campuses (especially faculty) that want to approach the task of student development in holistic way.

• Post Doctoral Fellow and Research Associate (1992-1996)

Contracted by the National Center on Postsecondary teaching, learning, and Assessment (NCTLA) to research newly hired faculty in a longitudinal analysis for three years. The project also involved research on enhancing teaching and faculty assessment use. Primary responsibilities included data management and analysis and interviewing at one of the six case sites. Other responsibilities included supervising three graduate students, writing quarterly reports and papers, and presenting at conferences and workshops.

1991-92 National-Louis University Evanston, Illinois

• Adjunct Faculty, School of Education

Taught a core course, Introduction to Graduate Research. The course included information about educational research, construction of problem statements and hypotheses, methodology of educational research (e.g., Experimental/quasi-experimental research designs, relational studies, descriptive research, issues in research design, data collection, reliability, validity, use of library resources, and APA writing guidelines.

Ann Arbor, Michigan

• Research Assistant

NCRIPTAL (National Center for Research to Improve Postsecondary Teaching and Learning) and University of Michigan's Center for the Study of Postsecondary Education. The project areas involved work on faculty motivation and productivity. Responsibilities included quantitative analysis of sequential national faculty surveys and an administrator survey. Multivariate analysis techniques were employed, using SPSS. The projects were interdisciplinary, involving paradigms from sociology and psychology.

• Intern, Office of the Vice President for Research

Responsibilities included handling research and program development assignments. Assisted in coordinating a diversity symposium for faculty, including follow-up feedback and evaluation. Coordinated the review process for the university's Presidential Initiatives Fund Competition (sponsored by the Kellogg Foundation). Assisted with preparations for the Presidential Initiatives Fund Symposium, Martin Luther King Celebration, Minority High School Apprenticeship Grant, and other miscellaneous projects.

1982-87 PPG Industries Allison Park and Springdale, Pennsylvania

• Research & Product Development Chemist (Chemist I & II)

Coatings and Resins Group Research Center:

Responsible for paint formulation, problem solving on customer production lines, and new product development for the truck, agricultural and heavy construction equipment markets. Last project included coordinating the research segment and facilitating interaction between two other groups in different locations to produce a team effort to achieve goals. Supervisory skills attained in research laboratory.

Exploratory Research in Coatings and Resins Group Research Center: Responsible for long-term research in the market areas of fire retardants and biosupports. Patents filed in the architectural, fire retardant, and biosupport areas.

Product development in the Springdale Coatings and Resins Plant: Responsible for paint formulation, problem solving on customer production lines, technical sales, presentations, and new product development for the aluminum extrusions market.

PUBLICATIONS

Books

Braskamp, L., Trautvetter, L., & Ward, K. (2006). Putting students first: How colleges develop students purposefully. San Francisco, CA: Jossey Bass.

Book Chapters

Trautvetter, L.C. (2019). Institutional practices and policies for recruiting and supporting undergraduate women in engineering across four-year institutions. In Advancing higher education research on undergraduate women in STEM, *New Directions for Institutional Research*, 179, San Francisco, CA: Jossey-Bass Wiley.

Trautvetter, L. C., Braskamp, L. A., & Ward, K.C. (2009). Reducing stress for new faculty at church-related colleges and universities in D. R. Buckholdt and G.E. Miller (Eds.), Faculty stress. Routledge.

Trautvetter, L. C. (2008). Undergraduate perspectives about religion in higher education. In M. R. Diamond (Ed.), Encountering faith in the classroom: Turning difficult discussions into constructive engagement. Sterling, VA: Stylus Publishing.

Trautvetter, L. C. (2007). Developing students searching for meaning and purpose. In G. Kramer (Ed.), Fostering student success in the campus community, San Francisco, CA: Jossey-Bass.

Trautvetter, L. C. (1999). Experiences of women, experiences of men. In Faculty in new jobs: A guide to settling in, becoming established, and building institutional support, edited by Robert J. Menges and Associates. San Francisco: Jossey-Bass.

Peer-Reviewed Journals

Thurber, D., & Trautvetter, L. (2020). Examining Student Reported Interaction and Satisfaction in Higher Education Administration Graduate Seminar-Style Blended Courses. *Online Learning*, 24(3). doi:http://dx.doi.org/10.24059/olj.v24i3.2102

Knight, D. B., Trautvetter, L. C., & Novoselich, B.J., (2014). Expanding women in undergraduate engineering: A mixed methods analysis of recruitment cultures, practices, and policies. Madrid, Spain: Proceedings 44th ASEE/IEEE Frontiers in Education.

*Trautvetter, L. C., Marra, R. M., Lattuca, L.R., Piacentini, K.L., & Knight, D. B., (June 2011). Programs and Practices Making a Difference: A Cross-Case Analysis Identifying Programs and Factors that Influence Recruitment and Retention of Women Engineering Students. Vancouver, B.C.: Proceedings 118th American Society for Engineering Education (ASEE).

*Received the 2011 Denice D. Denton Best Paper Award for the Women Engineering Division

Lattuca, L.R., Trautvetter L.C., Codd, S. L., Knight, D.B., Cortes, C.M. (June, 2011). Working as a team: Enhancing interdisciplinarity for the engineer of 2020. Vancouver, B.C.: Proceedings 118th American Society for Engineering Education (ASEE).

Lattuca, L.R., Plumb, C., Terenzini, P.T., & Trautvetter, L.C. (2010). Solving Engineering Problems in Context: Preliminary Results from Case Studies of Six Exemplary Engineering Programs. Washington D.C.: Proceedings 40th ASEE/IEEE Frontiers in Education.

Trautvetter, L.C., McKenna A., & Saddler, T. N. (2009). Prototyping the Engineer of 2020: A curricular examination of two exemplary institutions preparing undergraduate engineers. San Antonio, TX: Proceedings 39th ASEE/IEEE Frontiers in Education.

Trautvetter, L. C., Braskamp, L.A., & Ward, K. (2008). Reducing stress for new faculty at church-related colleges and universities. <u>Journal of Human Behavior in the Social Environment</u>, <u>17</u> (1/2).

Braskamp, L., Trautvetter, L., & Ward, K. (March/April 2008). Putting students first: Promoting lives of purpose and meaning. <u>About Campus</u>, 13:1

Ward, K., Trautvetter, L. C., & Braskamp, L. A. (November, 2005) Investing in students for faith development. <u>Journal of College and Character</u>, Florida State University

Blackburn, R., Bieber, J., Lawrence, J., & Trautvetter, L. (1991). Faculty at work: Focus on research, scholarship, and service. Research in Higher Education, 32 (4), 385-413.

Blackburn, R., Lawrence, J., Bieber, J., & Trautvetter, L. (1991). Faculty at work: Focus on teaching. Research in Higher Education, 32 (4), 363-383.

Other Publications

AAUW (pending). Solving the Equation: The variables for women's success in engineering and computing. Advisor and contributor from conference attended October 8-10, 2015). AAUW and NSF working conference: A Research Agenda on Gender Equity in Engineering and Computing. Washington D.C.

McKenna, A. & Trautvetter, L. C. (2014). Prototyping the Engineer 2020: Case Study of Massachusetts Institute of Technology. Washington D.C.: National Science Foundation.

Trautvetter, L. C. & McKenna A. (2012). Prototyping the Engineer 2020: Case Study of Howard University. Washington D.C.: National Science Foundation.

Trautvetter, L.C. Book Review of <u>Debating moral education</u>: <u>Rethinking the role of the modern university</u>. Elizabeth Kiss and J. Peter Euben, Editors. Durham and London: Duke University Press. <u>The Review of Higher Education</u>, Winter, 2011.

Trautvetter, L. C., Book Review of Old Main: Small colleges in twenty-first century America by Samuel Schuman. Baltimore: John Hopkins University Press. The Review of Higher Education, Summer 2006: 542-544.

Braskamp, L. A., Trautvetter, L. C. & Ward, K. (July, 2005). How college fosters faith development of students. <u>Spirituality in Higher Education Newsletter</u> 2 (3), www. Spirituality.ucla.edu/newsletter/4.html.

Wenzel, S. & Trautvetter, L.C. (September, 2004). Evaluation Report: CMSI/CUSP University-based_Teacher Professional Development Courses. A report to the Chicago Public Schools, Office of Mathematics and Science CMSI Evaluation Project. Chicago: University of Illinois.

Wenzel, S. & Trautvetter, L.C. (September, 2003). Evaluation Report: CMSI/CUSP University-based teacher professional development courses. A report to the Chicago Public Schools, Office of Mathematics and Science CMSI Evaluation Project. Chicago: University of Illinois.

Trautvetter, L. (1991). Gender differences in predicting faculty publication output in the natural sciences. Ph.D. dissertation. Ann Arbor, MI: University of Michigan.

Blackburn, R., Lawrence, J., Hart, K., Dickmann, E., Bieber, J., Bentley, R., Brazzell, J., Gaither, S., Herzberg, G., Linder, V., Luedy, B., Mackie, C., Trautvetter, L., & Zhou, W. (1990). Same institution, different perceptions: Faculty and administrators report on the work environment. Ann Arbor, MI: National Center for Research to Improve Postsecondary Teaching and Learning, Program D (Faculty as a Key Resource).

PATENTS

U.S. Patent 4,725,457 (February 16, 1988). Ward, T.A., Schimmel, K., Trautvetter, L.C., Heber, R., Mikus, J. Seiner, J. PPG Industries. Resinous compositions and their formulation into intumescent fire protective compositions.

PRESENTATIONS

Peer-Reviewed Paper Presentations

Trautvetter, L. (2021, January). Lessons Learned for Recruiting and retaining Underrepresented Trainees. National Science Foundation (NSF) NRT Annual Conference, Washington D.C.

Paulsen, M. & Trautvetter, L. (2019, November). IDEAS for Advancing Science Communication and Interdisciplinary Education, American Association of Colleges and Universities (AACU) Transforming STEM Higher Education Conference, Chicago, IL.

- Trautvetter, L. (2019, September). IDEAS for Attracting and Retaining Underrepresented Trainees for Data Science Related Careers. National Science Foundation (NSF) NRT Annual Conference, Evanston, Illinois.
- Thurber, D and Trautvetter, L.C. (2018). Examining Student Reported Interaction and Satisfaction in Higher Education Administration Graduate Seminar-Style Blended Courses. Association of the Student of Higher Education (ASHE). Tampa, Florida.
- Perez-Felkner, L, Trautvetter, L. C., Gayles, J., Sax, L., & Wang, X. (2016). Sharpening the Lens: Leveraging Research on Undergraduate and Graduate Women in STEM. Columbus, OH: Association of the Study of Higher Education (ASHE).
- Sax, L., Perez-Felkner, L, Trautvetter, L. C., Wang, X. (2015). A "World Café" on the nuanced experiences of women across STEM: Theoretical and methodological considerations of disciplinary differences and intersectionality in computer science and engineering. Denver, CO: Association of the Study of Higher Education (ASHE).
- Knight, D. B., Trautvetter, L.C., & Novoselich, B.J., (2014). Expanding women in undergraduate engineering: A mixed methods analysis of recruitment cultures, practices, and policies. Madrid, Spain: Proceedings 44th ASEE/IEEE Frontiers in Education.
- Trautvetter, L., & Knight, D., (April, 2013). Encouraging civic learning in the engineers of 2020: Using institutional values, curricula, and pedagogies of engagement to explore learning. American Educational Research Association (AERA). San Francisco, CA.
- Trautvetter, L. C., & Knight, D. B., (November, 2012). Gender differences still exist: A mixed methods analysis identifying practices that influence recruitment and retention of women engineering undergraduate students. Association of the Study of Higher Education (ASHE), November, 2012, Las Vegas, NV.
- *Trautvetter, L. C., Marra, R. M., Lattuca, L.R., Piacentini, K.L., & Knight, D. B., (June 2011). Programs and Practices Making a Difference: A Cross-Case Analysis Identifying Programs and Factors that Influence Recruitment and Retention of Women Engineering Students. American Society for Engineering Education (ASEE). Vancouver, B.C.* The 2011 Denice D. Denton Best Paper Award for the Women Engineering Division
- Lattuca, L. R., Trautvetter L. C., Codd, S. L., Knight, D.B., Cortes, C.M. (June, 2011). Working as a team: Enhancing interdisciplinarity for the engineer of 2020. American Society for Engineering Education (ASEE). Vancouver, B.C.
- Trautvetter, L. C. & Cortes, C. (April 2011). Developing civic competence in undergraduate engineers using institutional values, curricular, and pedagogies of engagement. American Educational Research Association. New Orleans, LA.

- Lattuca, L. R., Plumb, C., Terenzini, P.T., Trautvetter, L.C. (2010). Solving Engineering Problems in Context: Preliminary Results from Case Studies of Six Exemplary Engineering Programs. Washington D.C.: 40th ASEE/IEEE Frontiers in Education.
- Trautvetter, L. C., McKenna A., & Saddler, T. N. (2009). Prototyping the Engineer of 2020: A curricular examination of two exemplary institutions preparing undergraduate engineers. San Antonio, TX: 39th ASEE/IEEE Frontiers in Education.
- Trautvetter, L. C. & McKenna, A. (April 2009). Making Progress: Using Organizational Context to Study Learning and Persistence of Female and Underrepresented Students and Faculty Members in Engineering. Presentation at American Educational Research Association (AERA). San Diego, CA.
- Lattuca, L., Terinzini, P., Trautvetter, L., & Marra, R. (October 22-24, 2008). Preparing the engineer of 2020: Emerging evidence from six exemplary colleges and universities. Presentation at Frontiers in Education meeting (FIE), Saratoga Springs, NY.
- McKenna, A., Trautvetter, L. C., & Hutchison, M. (July 7-9, 2008). The engineer of 2020: Case studies of organization features of effective engineering education. Presentation at Research in Engineering Education Symposium (REES). Davos, Switzerland.
- Trautvetter, L. C. (2008) Religion, politics and student engagement: What faculty do and what students want. Presentation at the annual meeting of American Education Research Association. New York, NY.
- Trautvetter, L. C. (2007) The secular classroom: Undergraduate perspectives about religion and pedagogical strategies for faculty. Presentation at the annual meeting of the Association of the Study of Higher Education. Louisville, KY.
- Trautvetter, L. C., & Braskamp, L. (2006). Curricular and pedagogical strategies for fostering holistic student development. Presentation at annual meeting of American Education Research Association. San Francisco, CA.
- Braskamp, L. A., Trautvetter, L. C, & Ward , K. (February 2006) Investing in students for faith development. Invited presentation at Institute for College Values, Florida State University.
- Braskamp, L. A. & Trautvetter, L. C. (January 2006) How colleges develop students purposefully. Presentation at annual meeting of American Association of Colleges and Universities. Washington, D.C.
- Trautvetter, L. C., Ward, K. & Braskamp, L.A. (November 19, 2005) Holistic student development: Campus perspectives. Presentation at Association for the Study of Higher Education, Philadelphia, PA.
- Braskamp, L. A., Trautvetter, L. C. and Ward, K. (February 4, 2005). Spirituality in Academics: Data Driven Directions with Faculty, Staff, and Students. Annual meeting of FSU Institute on College Values. Tallahassee, FL

- Braskamp, L. A., Trautvetter, L. C. and Ward, K. (January 27, 2005). Engaging Campus Conversations for Holistic Student Development. Annual meeting of American Association of Colleges and Universities (AAC&U). San Francisco, CA
- Calkins, S. and Trautvetter, L.C., and Kelley, M. (November, 2004). Faculty expectations for Teaching Assistants: The move to a mentoring model at a research university. Presentation at Association for the Study of Higher Education, Kansas City, MO.
- Wenzel, S., Feranchak, B., & Trautvetter, L.C. (May 3, 2004). Evaluation of the CMSI university-based teacher professional development courses. Paper presented at the Symposium on Excellence in Teaching Mathematics and Science: Research and Practice, University of Illinois at Chicago.
- Trautvetter, L.C. (1995). New faculty members' perceptions about valued work skills and environment and their effects on teaching and research. Paper presented at the annual meeting of the American Educational Research Association. San Francisco, CA.
- Trautvetter, L.C. (1995). Socialization of newly hired female faculty members: Plugging the leaking pipeline. Paper presented at the annual meeting of the American Educational Research Association. San Francisco, CA.
- Trautvetter, L. C., Quinn, J., & Lenze, L. F. (1993). A portrait of newly hired faculty of color at four- and two- year institutions. Paper presented at the annual meeting of the American Educational Research Association. Atlanta, GA
- Trautvetter, L. C. & Blackburn, R. T. (1993). Gender differences in predicting faculty publication output in different fields. Paper presented at the annual meeting of the American Educational Research Association. Atlanta, GA
- Trautvetter, L. C. & Menges, R. J. (1993). The socialization of women and minority faculty. Paper presented at the annual meeting of the American Educational Research Association. Atlanta, GA
- Trautvetter, L. C. (1992). A portrait of newly hired faculty at different institutions in four disciplinary fields. Paper presented at the annual meeting of the Association for the Study of Higher Education. Minneapolis, MN.
- Trautvetter, L. (1991, April). Gender differences in predicting faculty publication output in the natural sciences over time. Paper presented at the annual meeting of the American Educational Research Association. Chicago, IL.
- Trautvetter, L. & Blackburn, R. (1990, April). Gender differences in predicting faculty publication output in the natural sciences. Paper presented at the annual meeting of the American Educational Research Association. Boston, MA.
- Lawrence, J., Trautvetter, L., Blackburn, R., Hart, K. & Herzberg, G. (1990, April). Women faculty in selected "female" and "male" disciplines: A view of professional

behavior at three points in time -- 1969, 1975, 1988. Paper presented at the annual meeting of the American Educational Research Association. Boston, MA.

Blackburn, R., Bieber, J., Lawrence, J., & Trautvetter, L. (1990, April). Faculty at work: Focus on research, scholarship, and service. Paper presented at the annual meeting of the American Educational Research Association. Boston, MA.

Lawrence, J., Trautvetter, L., & Blackburn, R. (1989, November). Predicting faculty publication output: Evaluation of a model across institutional types. Paper presented at the annual meeting of the Association for the Study of Higher Education. Atlanta, GA.

Blackburn, R., Pitney, J., Lawrence, J., & Trautvetter, L. (1989, March). Administrators' career background and their congruence with faculty beliefs and behaviors. Paper presented at the annual meeting of the American Educational Research Association. San Francisco, CA.

Lawrence, J., Frank, K., Bieber, J., Bentley, R., Blackburn, R., & Trautvetter, L. (March, 1989). Faculty scholarly output: Development of a theoretical model. Paper presented at the annual meeting of the American Educational Research Association. San Francisco, CA.

Lawrence, J., Bieber, J., Blackburn, R., Trautvetter, L., Hart, K., & Frank, K. (March, 1989). Predicting individual change in faculty research productivity. Paper presented at the annual meeting of the American Educational Research Association. San Francisco, CA.

Blackburn, R., Lawrence, J., Bieber, J., & Trautvetter, L. (1988, November). Faculty at work: Focus on teaching. Paper presented at the annual meeting of the Association for the Study of Higher Education. St. Louis, MO.

Lawrence, J., Pitney, J., & Trautvetter, L. (1988, November). Faculty and administrative views: The organizational climate for teaching. Paper presented at the annual meeting of the Association for the Study of Higher Education. St. Louis, MO.

Invited Presentations

TEACHx (May, 2022) "Assessing Justice, Equity, Diversity, and Inclusion in Curriculum." Presented with Chris Neary. We shared a template that we designed for DEIJ. In addition, we have now informally organized a group of 8 colleagues across the university that represent 5 different Northwestern schools and departments in addition to SESP to discuss and share inclusive teaching practices and pedagogy.

TEACHx (May, 2021). "Hopin: Connections in Research through a Virtual Platform." Presented with Chris Neary, Amit Prachand, and Ellen Meents-DeCaigney. Submitted virtually.

Office of Provost (May 14, 2021) . Panelist for the New Faculty Mentoring Program.

Center for Interdisciplinary Exploration and Research in Astrophysics (CIERA) (October, 2020). "Lessons Learned for Recruiting and Retaining Underrepresented Trainees in Graduate Education".

Trautvetter L.C. (August, 2017). Pedagogy Workshop at NU-Q – Reflecting on the mission and learning centered objectives of the NU-Q curriculum; How do we select appropriate teaching strategies and activities; and Assessment strategies -- connecting evidence-based approaches to learning and pedagogical strategies. Presentations in Doha, Qatar.

Trautvetter L.C. (October, 2016). Recruiting women in STEM: Promoting Integrated Data-Driven Discovery (Integrated Data-Driven Discovery in Earth and Astrophysical Sciences (IDEAS), Center for Interdisciplinary Exploration and Research in Astrophysics

CIERA and MS in Higher Education Administration and Policy program. Hosted by the Council for International Culture and Education (CICE) in New York. Presentations in Jinan, Xian, Chengdu, Shenyang, and Tianjin.

Trautvetter L.C. (May 4, 2016). State-of-the-science: Innovators and innovations in STEM graduate training. Future STEM Leaders conference with national experts from academic, government and industry to discuss the future of graduate STEM training. Ronald Reagan Building and International Trade Center, Washington D.C. http://futurestemleaders.com

Trautvetter L. C. (October 8, 2015). Recruitment of Female and Underrepresented Engineering Faculty: The Influence of Organizational Context. AAUW and NSF working conference: A Research Agenda on Gender Equity in Engineering and Computing. Washington D.C.

Trautvetter, L. C. (July, 2014). 2014 U.S. Leading Graduate and Professional Schools Tour in China hosted by the Council for International Culture and Education (CICE). Presentations in Shanghai, Hefei, Wuhan, Guangzhou, Shenzhen, Beijing, and Tianjin.

Trautvetter, L. C. (February 1, 2013). Gender Differences Still Exist: Identifying Practices that Influence Retention and Recruitment of Undergraduate Students. Chicago Symposium Series, Excellence in Teaching Mathematics and Science Research and Practice. Chicago, IL: University of Illinois at Chicago.

Trautvetter, L. C. (November, 27, 2012). Gender Differences Still Exist: A Mixed Methods Analysis Identifying Practices that Influence recruitment and Retention of Women Engineering Undergraduate Students. Human Development and Social Policy Talk. Evanston, IL: Northwestern University, School of Education and Social Policy.

Trautvetter, L.C. (January 20, 2012). Programs and Factors that Make a Difference in Recruiting and Retaining Women Engineering Students. NCEER, McCormick Engineering and Sciences. Evanston, IL: Northwestern University.

Ro, H. K., Marra, R. M., Terenzini, P. T., Trautvetter, L. C. (June, 2011). If You Build It, They Will Come (and Stay): Recruiting and Retaining Women and Underrepresented Minority Students. Symposium Panel presented at American Society for Engineering Education (ASEE), Vancouver, B.C.

Trautvetter, L. C. (July, 2007). Exploring the spiritual dimension on student learning. Invited presentation at Society of Values in Higher Education 83rd Annual Meeting, Inquiry and Action: Teaching and Learning in a Religiously Pluralistic World, Baltimore: MD.

Trautvetter, L. C., & Stevens, T. (December, 2006). Spiritual identities: Examining the religious lives of Northwestern students. Northwestern University's Division of Student Affairs Staff Development workshop.

Trautvetter, L. C., & Braskamp, L. (June, 2006). Putting students first. Invited Keynote Speakers at Northwestern University's Division of Student Affairs (DOSA) Conference, June 21, 2006, Evanston: IL.

Trautvetter, L. C., & Braskamp, L. (February, 2006). How colleges develop students purposefully. Invited presentation at the National Association of College and University Chaplains' Conference: Seeking religious dialogue: Conversations, collaborations, and communities. Evanston, IL.

Braskamp, L. A., Trautvetter, L. C, & Ward, K. (February 2006) Investing in students for faith development. Invited presentation at Institute for College Values, Florida State University.

Trautvetter, L.C. (July, 1997). How can senior faculty help junior faculty? A seminar prepared and presented to senior faculty (the Executive Council) at the School of Public Health, University of Pittsburgh at the request of the Dean.

Trautvetter, L. C. (1993). Junior faculty institute: Faculty stress in a new job. Invited institute presented at the annual meeting of the American Educational Research Association. Atlanta, GA.

Media Engagements

WTTW, Channel 11. "Chicago Tonight." August 10, 2015. (Panelist commenting on controversies at the University of Illinois such as top party school ranking and the withdrawal of a faculty job offer.

 $\underline{http://chicagotonight.wttw.com/2015/08/10/u-i-spotlight-after-chancellors-resignation-email-violations}$

GRANTS RECEIVED

2021-26 \$9,000,000. John Templeton Foundation and LSST, Inc. "Contribution to the Implementation and Study of the LSST" (Total award was approximately \$9M). NUFinancials Award and Project Number: SP0076892, 60063972. (PI is Jennifer Solokoski Columbia University and LSST, Inc.)

2022-26 \$249,390 John Templeton Foundation and LSST, Inc. as an additional supplement for senior social scientists for \$1.2M in total. "Establishing a Templeton LSST Early-Career Research Fellowship" from July 15, 2022-July 14, 2026.

- 2015-21 \$2,966,598. National Science Foundation, "NRT-DESE: Training in Data-Driven Discovery From the Earth and the Universe to the Successful Careers of the Future." (Co-I with Vicky Kalogera as PI)(DGE-1450006-001).
- 2007-11 \$283,469 National Science Foundation, "Prototyping the Engineer of 2020: A 360-Degree Study of Effective Education."
 - 2004 \$100,000 John Templeton Foundation to support the research project, "Promoting Student Development Through Faculty Development."
 - 2003 \$200,000 from the Eli Lilly Foundation to support the research project, "Promoting Student Development Through Faculty Development."

SERVICE

Professional Service

Emerging Scholars Fellow Program. Division J. American Educational Research Association Annual Meeting, CA: San Francisco, 2013.

Emerging Scholars Fellow Program. Division J. American Educational Research Association Annual Meeting, British Columbia: Vancouver, 2012.

Co-Chair of Faculty, Teaching, and Learning, Division J, American Education Research Association Annual Meeting. NY: New York City, 2008.

Reviewer for ASHE Monographs (2009-present)

Referee for Journal in Higher Education (2008-09)

Referee for Research in Higher Education (2007 – present)

Referee for Science (2006- present)

Referee for Review of Higher Education Journal (1998-present).

Referee for American Educational Research Journal (1998-present)

Referee for Journal of Teacher Education (2003-2006)

Reviewer for American Educational Research Association proposals (1991-present)

Reviewer for Association for the Study of Higher Education proposals (1991-present)

Vice Program Chair, College Students, Division J, American Educational Research Association Annual Meeting, GA: Atlanta, 1993.

Institutional Service

Northwestern Buffet Global Council, School of Education and Social Policy Representative (2022-2025)

Office of the Provost's Mentoring Program for Early Faculty (2020-2022)

University Faculty Appeals Panel (2017-20)

Northwestern Foundations Manager Mentoring Program (2020-22)

Center for Interdisciplinary Exploration and Research in Astrophysics (CIERA) and IDEAS member (2016 – present)

School of Education and Social Policy Dean Search Committee (2016-17).

Office of the Provost Professional Master's Programs Council Member (2015-present)

Steering Committee Member, Center for Civic Engagement, Northwestern University (2008-present)

Northwestern Center for Engineering Education Research Scholar, Northwestern University (NCEER) (2008-present)

Research Associate, Searle Center for Advancing Teaching and Learning, Northwestern University (2003-present)

Committee for Civic Engagement (pre Center for Civic Engagement). Including the Conference at Northwestern University -- Civic Engagement & The University: What do we know? What is Northwestern's role?, funded by Northwestern's Asset-Based Community Development Institute, Center for Writing Arts, and Institute for Policy Research, November 2, 2007, Evanston: IL.

Collaborator, Division of Student Affairs, Learning Beyond the Classroom, First Year Experience at Northwestern University, Residential Housing, etc., 2005-08, Evanston, IL.

Invitation to collect data and present findings from survey conducted with Campus Ministries to Northwestern University Central Administration and Survey Planning Committee on Spiritual Lives of Northwestern Students obtained from surveys and focus groups, May 2007.

Faculty Workshop Series: Holistic Approaches to Teaching and Learning, Northwestern University's Searle Center for Teaching Excellence, April, 2006 and May, 2007, Evanston: IL

Keynote Presentation, Division of Student Affairs Conference, Northwestern University. Putting Students First, June 2006.

Faculty Workshop Series: College Student Development and Holistic Approaches to Teaching and Learning, Northwestern University's Searle Center for Teaching Excellence, May, 2006, Evanston: IL

E-IRB workgroup during Fall 2005- Summer 2006 for the Office for the Protection of Research Subjects. Also periodically help the IRB office by making the process easier for students to get IRB approval.

PROFESSIONAL AFFILIATIONS

American Society for Engineering Education (ASEE) American Educational Research Association (AERA)

Association for the Study of Higher Education (ASHE)
National Association of Student Personnel Administrators (NASPA)
Association of the American Colleges and Universities (AACU)
American Association of University Women (AAUW)
American Chemical Society (ACS)

CONSULTATIONS

- 2011 Loyola University School of Education. Report on junior and newly tenured faculty.
- 2006-08 Garrett-Evangelical Theological Seminary. Assisted in data collection plan and survey instruments to gather information from alumni. Also helped analyze the results.
- 2002-04 Chicago Institute for Mathematics and Science Education, University of Illinois.

Evaluated Chicago Public School's Chicago Urban Systemic Program (CUSP) and Math and Science Initiative for National Science Foundation funding, including the evaluation of the professional development courses piloted in Chicago's areas higher education institutions and writing the reports in September 2003 and 2004.

National Center for Teaching, Learning, and Assessment, Northwestern University.

Worked with the board on the Newly Hired Faculty Project.

OTHER ACTIVITIES

P.E.O. Chapter MP (National Women's Philanthropic Educational Organization) (held leadership positions). Organization engages in helping women pursuing undergraduate and graduate education, especially those with hardships. Our Evanston chapter has sponsored 5 women in the past 2 yrs. (1991-present)

Night Ministry volunteer -- provide and serve food bimonthly to Chicago homeless – about 50-60 people show up each night that we serve.

College of Wooster Alumni Admissions Committee (since 2012) – mentor prospective and current students, especially women and underrepresented students close to graduation in STEM. Exploring a way to share the higher education administration career pathway with undergraduates and help them discover "Who I am" and find purpose.

Northminster Presbyterian Church, Evanston, Illinois, Elder/Chair of Nominating, (January 2022-January,25), and member of Racial Justice Committee (2019-present). Leading some educational trainings and learning more about our Evanston community and beyond; Elder, Worship (2000-03; 2016-18) and member of Fellowship Committee (2013-18)

Northwestern University Christian Ministry, Board Director (2006-2014)

Lincolnwood Elementary PTA Program Chair (2001-2003)

Traveled to 40 different countries: Recent trips include Armenia to be part of an educational mission trip through the Jinishian Memorial Foundation and the Presbyterian Church USA; China; and Qatar.