LAUREN PERRY

Department of Mathematics and Statistics
California State University Sacramento
6000 J Street, Sacramento, CA 95819

Phone: (916) 278-4348
Email: perry@csus.edu
Website: lgpperry.github.io

EMPLOYMENT

California State University, Sacramento
Assistant Professor, Department of Mathematics and Statistics   Aug 2020 - ongoing

EDUCATION

Ph.D., Applied Statistics, University of California, Riverside
B.S., Statistics, *summa cum laude*, University of California, Riverside

COURSES TAUGHT

California State University, Sacramento   Aug 2020 - ongoing
· Stat 1   Introduction to Statistics
· Stat 115A   Introduction to Probability Theory
· Stat 115B   Introduction to Mathematical Statistics
· Stat 128   Statistical Computing
· Stat 140A   Linear Models
· Stat 140B   Statistical Learning (originally offered as Stat 196M)
· Stat 199   Special Problems (Independent Study)
· Math 26A   Calculus I for the Social and Life Sciences
· Math 107A   Fundamental Mathematical Concepts

University of California, Riverside   Jul 2019 - Dec 2019
· Stat 100A   Introduction to Statistics I
· Stat 100B   Introduction to Statistics II

STATISTICAL CONSULTING AND APPLIED STATISTICS PROJECTS

CSU Mathematics Council   Fall 2024 - ongoing
· Statistical review of California AB1705 reports and implementation.
· Independent report on California AB1705.

Peer Assisted Learning (PAL) at Sacramento State   Spring 2024 - ongoing
· Propensity-scored weighted analysis of dosing effects from taking multiple PAL courses.
· Propensity-scored matched analysis of grades in BIO 25 and 26 for PAL versus non-PAL students.

California State Controller's Office - Division of Audits
Principal Investigator   July 2022 - July 2025
· Statistical consulting contract for applied statistics and to provide training on audit sampling.

UNCF Institute for Capacity Building - Excelencia - Coleridge Initiative
Co-PI, CSUS Team (Gamma Cohort), *Leveraging Big Data to Achieve Equity*   Aug 2022 - Jan 2023
· Worked with data from the National Center for Science and Engineering Statistics to write research report,
  Inequities in the pathway toward the professoriate.
Member, CSUS/CSUN Team (Beta Cohort), *Leveraging Big Data to Achieve Equity*   Jan 2022 - Jun 2022
· Worked with data from the National Center for Science and Engineering Statistics to write research report,
  Factors mediating time to doctorate degree and female academic career pathways.

University of California, Riverside
Lead Consultant, Graduate Quantitative Methods Center   Jul 2018 - Jun 2019
· Provided statistical and computational consultations to graduate students and postdoctoral researchers.

· Developed and taught workshops, seminars, and instructional labs: *Introduction to Statistical Inference*; *Introduction to ANOVA*; *Introduction to Programming*; *Introduction to Multilevel Modeling*; *Introduction to SAS*; *Introduction to R*; *Intermediate Topics in R*; *Overview of Causal Inference*; *Improving Research Credibility*; *Writing Articles in LaTeX*; *The UCR LaTeX Dissertation Template*; and *Experimental Design*

Brief ad hoc consulting Various
· California Department of Justice, Earthshot Labs, Micro Systems Engineering, California Lottery, CSUS faculty and students

PUBLICATIONS*

Mountain J., **Perry L.**, Ghanbarian B., Temizel C., Cetin C. *Pore-throat size distributions of Mesaverde tight gas sandstones: introducing generalized normal distribution.* In review.

Green E., Wilkinson T., Howman J., Bayliss J., **Perry L.** (2024) *Clinical education data management: current landscape in entry-level physical therapist education.* Journal of Allied Health. go.shr.lc/3ADfhlk

Flores A., **Cappiello L.**, Quintanilla Salinas I. (2023) *Challenges and successes of emergency online teaching in statistics courses.* Journal of Statistics and Data Science Education. doi.org/10.1080/26939169.2023.2231036

Herrmann J., Koprowska A., Winters T.J., Villanueva N., Nikityuk V., Pek F.[†], Reis E.M., Dominguez C., Davis D.E., McPherson E., Rocco S.R., Recendez C., Difuntorum S., Faeth K., Lopez M.D., Awwad H., Ghobashy R.A., **Cappiello L.**, Neidle E.L., Quiones-Soto S., Reams A.B. (2023). *Gene amplification mutations originate prior to selective stress in Acinetobacter baylyi.* G3 Genes|Genomes|Genetics. doi.org/10.1093/g3journal/jkac327

Cappiello L., Zhang Z., Shenn C., Butala N., Cui X., Yeh R. (2021). *Adjusting for population differences using machine learning methods.* J R Stat Soc Series C. doi.org/10.1111/rssc.12486

Cappiello L. (2020). *Adjusting for population differences using applied machine learning methods.* Doctoral dissertation, UC Riverside. escholarship.org/uc/item/5ng9c2bn (Advisors: Zhiwei Zhang and Xinping Cui)

Perry L. (2016). *A novel estimation technique for a five-parameter bivariate beta distribution.* Undergraduate honors capstone project, UC Riverside. (Advisor: James Flegal)

∗ I have published under both Perry and Cappiello.
† Undergraduate student mentee.

RESEARCH PRESENTATIONS

Where are all the professors of color? Lightning talk (with Jasdeep Pannu). Alliance of Hispanic Serving Institution Educators (AHSIE) Best Practices Conference. (March 14, 2023). San Francisco, CA.

Challenges and successes of emergency online teaching. Invited talk. Chico State Math Colloquium. (October 28, 2022). Chico, CA.

Factors mediating time to doctorate degree and female academic career pathways. UNCF Institute for Capacity Building - Excelencia - Coleridge Initiative, *Leveraging Big Data to Achieve Equity.* Presentation given to NCSES/NSF stakeholders. (June 3, 2022). Remote due to COVID-19.

Applied machine learning methods in adjusting for population differences. Invited talk. Orange County Biostatistics Symposium. (November 6, 2020). Remote due to COVID-19.

A novel estimation technique for a five-parameter bivariate beta distribution. Poster presentation. International Biometric Society Eastern North American Region Meeting. (March 6, 2016). Austin, Texas.

MENTORING

Professors for the Future
· Fellowship program at UC Davis for developing leadership skills in PhD students and post docs.
· Co-mentored a project on Neurodivergent Researchers. 2024 - 2025

Undergraduate Research
Feini Pek, CSUS Mathematics Major Fall 2021 - Spring 2023
· Data analysis for Dr. Andrew Ream's lab in the CSUS Biology Department.

· Independent research project: *A comparative simulation study on various equality of variance tests.*
    · Fei gave a talk on this work at the Student Research & Creative Activity Spring Symposium. (March 6, 2023)

Sacramento State U-Mentor Program
Mentor   2022

ATHENA by Women in STEM
Mentor, The Talaria Summer Institute   2020, 2022

GRANTS

California State University, Sacramento
STEM4Equity and Center for Teaching and Learning   Spring 2025
· Three units of course release to work on an analysis of BIO 25/26 PAL data.

Exceptional Levels of Service to Students Assigned Time Award   Spring 2024
· Three units of course release to work on an analysis of PAL data.

STEM4Equity Mini Grant: Statistics Course Redesign   Fall 2023
· Three units of course release to further the Stat 1 redesign as part of the STEM4Equity project funded by a STEM HSI grant from the U.S. Department of Education.

Curriculum Redesign Grant: Achieving Equitable Outcomes in Undergraduate Programs   Spring 2022
· Stat 1: Introduction to Statistics redesign (with Sayonita Ghosh Hajra, Jasdeep Pannu, and Topaz Wiscons). Funded for $40,000.

Curriculum Redesign Grant: Achieving Equitable Outcomes in Undergraduate Programs   Fall 2021
· Math 10: Essentials of Algebra redesign (with Sayonita Ghosh Hajra, Jasdeep Pannu, and Topaz Wiscons). Funded for $39,654.

Summer Online Course Design Grant   Spring 2021
· Redesigned Stat 1, Introduction to Statistics, to be a six-week, fully online course that could be taken asynchronously. This course was offered in Summer 2021.

PROFESSIONAL DEVELOPMENT

ESCALA Educational Services
Minicourse: *Culturally Responsive Teaching in STEM in Hispanic Serving Institutions*   Summer 2023

The Association of College and University Educators (ACUE)
Microcredential: *Designing Student-Centered Courses*   Spring 2022

Mathematical Association of America
Fellow, *Project NExT (New Experiences in Teaching)*   2021 - 2022

California State University, Sacramento
Faculty and Professional Learning Communities
· *Designing Student Centered Courses: Math Group*   Spring/Fall 2022
· *Flexible Fundamentals Workshop*   Summer 2021
· *Designing for Student Success: Building Inclusive Practices*   2020 - 2021
· *Teach ON!-Line Summer Camp*   Aug 2020

OTHER PRESENTATIONS AND WORKSHOPS

Discussion leader, *MAA Golden Section Project NExT Meeting*	August 3, 2022
MathFest	Philadelphia, PA
Panelist, *Balancing Teaching/Research/Service & Professional and Personal Life*	May 12, 2022
UC Riverside Career Mentoring of Underrepresented STEM Students for the Professoriate	Remote
Panelist, *Alumni Speakers*	Jan 10, 2022
CSUS Summer Grant Program	Remote

Discussion leader (with Dr. Analisa Flores, UC Riverside)
Challenges and Successes of Emergency Online Teaching: Where Do We Go From Here?   Aug 2, 2021
Birds of a Feather Discussion at the Joint Statistical Meeting   Remote

Panelist, *The Transition from Student to the Professoriate*   May 13, 2021
UC Riverside Career Mentoring of Underrepresented STEM Students for the Professoriate   Remote

Panelist, *Getting Hired: CSUs and Community Colleges*   May 6, 2021
UC Riverside Teaching Careers Week   Remote

Panelist, *Meeting With Alumni*   Jan 15, 2021
National Institute of Statistical Sciences Graduate Student Network   Remote

SERVICE TO UNIVERSITY

California State University, Sacramento
Statistics Group, Department of Mathematics and Statistics
· *Ad Hoc* Committee Chair   2024 - 2025
· Proposed and developed a new BS in Statistics   Program launched Fall 2024
· Courses proposed and developed (with Clark Fitzgerald and Jasdeep Pannu)
   · Linear Models (Stat 140A / 196L)   First offered Spring 2023
   · Statistical Learning (Stat 140B / 196M)   First offered Spring 2024
   · Community Service Learning in Statistics (Stat 191)
   · Statistics Capstone (Stat 192)
Faculty Senate
· Alternate Senator, Department of Mathematics and Statistics   2024 - 2025
· General Education Course Review Subcommittee   2021 - 2027
   · Committee Chair (one year terms)   2022 - 2025
College of Natural Sciences and Mathematics
· Academic Council   2024 - 2025
Committees Served, Department of Mathematics and Statistics
· Advising   2023 - 2025
· Calculus   2020 - 2021
· Core Curriculum   2021 - 2022; 2023 - 2024
· Curriculum   2020 - 2021; 2022 - 2023
· MAA MathFest (*ad hoc* committee)   2024 - 2025
· Scholarship   2022 - 2023
· Screening   2023 - 2024
· Search   2021 - 2024
· Social   2021 - 2025
   · Committee Chair   2022 - 2024
Faculty Advisor, Student Organizations
· Women in STEM Club   2023 - ongoing

Outside Member, Strategic Research Analyst Search Committee, Student Success Office   2023

Editor, Cummings J. *Proofs, A Long-Form Mathematics Textbook.*   2021

University of California, Riverside
Statistics Graduate Student Association
· President and co-founder   2019 - 2020
Department of Statistics
· Graduate Student Ambassador   2019 - 2020
Mu Sigma Rho
· President   2018 - 2020
· Secretary   2017 - 2018

SERVICE TO COMMUNITY

NorCal DataFest

Co-Organizer   2022 - 2023; 2024 - 2025

· NorCal DataFest is a collaboration between CSU Sacramento and CSU Chico to host the American Statistical
  Association DataFest event.
· Our first event at CSUS was in April 2023. We anticipate hosting here biannually.

Math Literacy Project

Faculty Mentor   Spring 2023

· MLP provides hands-on math lessons for middle and high school students.

Sacramento Statistical Association

Secretary   2022 - 2023

· SSA hosted the short course, *An introduction to second-generation p-values and their use in statistical practice* by
  Drs. Jeffrey Blume and Megan Murray (September 1, 2022).

Mathematical Association of America

Co-Coordinator - Gold '21 Cohort, *Project NExT (New Experiences in Teaching)*

· Organized six Project NExT Sessions for MathFest in Philadelphia, PA.   Summer 2022
    · *Maximizing In-Person Student Engagement After Online Learning*
    · *Drowning in Homework: Making Grading More Efficient*
    · *Navigating Student Mental Health Issues*
    · *So You Want to Build a New Course: Curriculum Development*
    · *Project NExT Made Us Do It: Successes, Failures, and What We Wished We Had Known Before*
    · *Supporting a Co-Curricular Math Community*
· Coordinated six Project NExT Sessions for the Joint Mathematical Meeting (remote).   Winter/Spring 2022
    · *Mastery-Based Grading*
    · *Undergraduate Research*
    · *De-Westernizing the History of Mathematics*
    · *Establishing Interdisciplinary Collaborations*
    · *Advocating for Students of Color*
    · *Project-Based Learning*

Undergraduate Statistics Project Competition

Consortium for the Advancement of Undergraduate Statistics Education with the American Statistical Association

· Judge, Undergraduate Class Project (Intermediate) Category   Winter 2024
· Judge, Undergraduate Statistics Research Project Category   Winter 2022

California State University

· Northern California Data Science Alliance   2021 - ongoing

Gage by 500 Women Scientists

Resource, *Request a Woman Scientist*   2018 - ongoing

Reviewer

· Journal of Statistical Theory and Practice

ONLINE PUBLICATIONS

Introduction to Statistics   First published 2021; last modified 2024

· Open source textbook available at `bookdown.org/lgpperry/introstats/`
· Accompanying slides available at `lgpperry.github.io/teaching/stat1/`   2023

Educational RShiny Apps (available at `lgpperry.github.io/teaching/shinyapps/`):
· *Simulating the Central Limit Theorem*   2022
· *The Normal Approximation to the Binomial Distribution*   2022
· *Normal Distribution Calculator*   2022

Educational Blog Posts (available at `lgpperry.github.io/blog/year-archive/`):

- *Using LaTeX Equations in Github Pages*   2022
- *Character Stats* (Discusses simulation and order statistics.)   2022
- *Rolling with Advantage and Disadvantage* (Covers some basic rules of probability.)   2022
- *A Gentle Introduction to Probability Using Dice*   2021
- *Dungeons and Dragons Character Generator, an RShiny App*   2020

Untitled. (Accepted 2019) Union of Concerned Scientists blog.

Learning to Love Statistics. (2018) University of California, Riverside Graduate Student Resource Center blog. Republished on my website `lgpperry.github.io/lovestatistics/`.

MEDIA

Interviewed for *Excited to go back: Sac State students weigh in on fall 2021 teaching modalities.* (2021) The State Hornet. `statehornet.com/2021/04/sac-state-students-fall-2021-in-person-opinions/`