

# LAUREN PERRY

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## EMPLOYMENT

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### California State University, Sacramento

Assistant Professor, Department of Mathematics and Statistics

Aug 2020 - ongoing

## EDUCATION

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Ph.D., Applied Statistics, University of California, Riverside

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

## COURSES TAUGHT

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### California State University, Sacramento

Aug 2020 - ongoing

- Stat 1 Introduction to Statistics
- Stat 10A Introductory Statistics with Developmental Mathematics
- 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

## PUBLICATIONS

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Shanbrom C., **Perry L.** (2025) *The dosing effect of Peer Assisted Learning in undergraduate organic chemistry*. Journal of Chemical Education. doi.org/10.1021/acs.jchemed.5c00485

Mountain J., **Perry L.**, Ghanbarian B., Temizel C., Cetin C. (2025) *Characterizing pore-throat size distributions in Mesaverde tight gas sandstones using generalized normal distribution*. Transport in Porous Media. doi.org/10.1007/s11242-025-02206-z

Green EM, 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. PMID: 38834346.

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.<sup>†</sup>, 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 Xinpeng Cui)

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

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<sup>†</sup>Undergraduate student mentee.

Note: I have published under both Perry and Cappiello.

## STATISTICAL CONSULTING AND APPLIED STATISTICS PROJECTS

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### CSU Mathematics Council

2024 - 2025

- Statistical review of California AB1705 reports and implementation.

### Peer Assisted Learning (PAL) at Sacramento State

Spring 2024 - ongoing

- Analysis of dosing effects from taking multiple PAL courses in sequence.
- Analysis of dosing effects from taking (some number of) previous PAL courses.
- 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 - ongoing

- 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: *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

## RESEARCH PRESENTATIONS

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*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 NC-SES/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

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### Professors for the Future

- Fellowship program at UC Davis for developing leadership skills in PhD students and post docs.
- Our mentees put on a workshop series on supporting neurodivergent students in academia.

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

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### 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

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### 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

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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, <i>The Transition from Student to the Professoriate</i>	May 13, 2021
UC Riverside Career Mentoring of Underrepresented STEM Students for the Professoriate	Remote
Panelist, <i>Getting Hired: CSUs and Community Colleges</i>	May 6, 2021
UC Riverside Teaching Careers Week	Remote
Panelist, <i>Meeting With Alumni</i>	Jan 15, 2021
National Institute of Statistical Sciences Graduate Student Network	Remote

## SERVICE TO UNIVERSITY

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### California State University, Sacramento

Statistics Group, Department of Mathematics and Statistics

· 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)	First offered Fall 2025
· Statistics Capstone (Stat 192)	First offered Spring 2026

Faculty Senate

· General Education Course Review Subcommittee	2021 - 2027
· Committee Chair (one year terms)	2022 - 2025
· General Education / Graduation Requirements Policy Committee	2025 - 2028
· Alternate Senator, Department of Mathematics and Statistics	2022 - 2025

College of Natural Sciences and Mathematics

· Academic Council	2024 - 2027
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Committees Served, Department of Mathematics and Statistics

· Advising	2023 - 2025
· Calculus	2020 - 2021
· Curriculum	2020 - 2021; 2022 - 2023
· MAA MathFest ( <i>ad hoc</i> committee for the Sacramento conference)	2024 - 2025
· Mathematics Core Curriculum	2021 - 2022; 2023 - 2024
· Scholarship	2022 - 2023
· Screening	2023 - 2024
· Search	2021 - 2024
· Social	2021 - 2025
· Committee Chair	2022 - 2024
· Statistics Core Curriculum	2024 - 2025
· Committee Chair	2024 - 2025

Faculty Advisor, Student Organizations

· Women in STEM Club	2023 - ongoing
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Judge, Spring Student Research and Creative Activity Symposium	2025
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Outside Member, Strategic Research Analyst Search Committee, Student Success Office	2023
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Editor, Cummings J. <i>Proofs, A Long-Form Mathematics Textbook</i> .	2021
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### University of California, Riverside

Statistics Graduate Student Association

· President and co-founder	2019 - 2020
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Department of Statistics

· Graduate Student Ambassador	2019 - 2020
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Mu Sigma Rho

· President	2018 - 2020
· Secretary	2017 - 2018

## SERVICE TO COMMUNITY

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### 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.
- ASA DataFest is hosted at Sacramento State biannually in April.

### Undergraduate Statistics Project Competition

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

- Judge, Research Project Category Summer 2025
- Judge, Class Project (Intermediate) Category Winter 2025
- Judge, Class Project (Intermediate) Category Winter 2024
- Judge, Research Project Category Winter 2022

### 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*

### Gage by 500 Women Scientists

Resource, *Request a Woman Scientist*

2018 - ongoing

### Reviewer

- Journal of Statistical Theory and Practice
- Journal of Teaching Statistics

## ONLINE PUBLICATIONS

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*Introduction to Statistics*

First published 2021; last modified 2025

- Open source textbook available at [bookdown.org/lgpperry/introstats/](https://bookdown.org/lgpperry/introstats/)
- Accompanying slides available at [lgpperry.github.io/teaching/stat1/](https://lgpperry.github.io/teaching/stat1/)

Educational RShiny Apps (available at [lgpperry.github.io/teaching/shinyapps/](https://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/](https://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/](https://lgpperry.github.io/lovestatistics/).

## MEDIA

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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/](https://statehornet.com/2021/04/sac-state-students-fall-2021-in-person-opinions/)