

# 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

- Math 26A Calculus I for the Social and Life Sciences
- Math 107A Fundamental Mathematical Concepts
- 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
- Stat 199 Special Problems (Independent Study for Undergraduate Students)
- Stat 299 Special Problems (Independent Study for Graduate Students)

### 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 E.M., 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 Xiping Cui)

\*I have published under both Perry and Cappiello.

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

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

## STATISTICAL CONSULTING AND APPLIED STATISTICS PROJECTS

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### ECS Peer Assisted Learning (PAL) at Sac State

Fall 2025 - ongoing

- Analysis of grades for PAL versus non-PAL students across all current PAL course offerings.

### NSM Peer Assisted Learning (PAL) at Sac 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.

### CSU Mathematics Council

2024 - 2025

- Statistical review of California AB1705 reports and implementation.

### 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 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

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### Graduate Research

- Benjamin Matta, CSUS Mathematics Graduate Student Winter 2026 - ongoing  
· Data analysis for NSM PAL examining dosing effects from taking (some number of) previous PAL courses.

### Professors for the Future at UC Davis

- Fellowship program for developing leadership skills in PhD students and post docs. 2024 - 2025  
· Our mentees put on a workshop series on supporting neurodivergent students in academia. 2025 - 2026  
· This year's mentees are working on a panel series on women in academia.

### 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

- *Math Teaching Tools and Open Educational Resources* Spring/Fall 2026  
· *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, <i>MAA Golden Section Project NExT Meeting</i>	August 3, 2022
MathFest	Philadelphia, PA
Panelist, <i>Balancing Teaching/Research/Service &amp; Professional and Personal Life</i>	May 12, 2022
UC Riverside Career Mentoring of Underrepresented STEM Students for the Professoriate	Remote
Panelist, <i>Alumni Speakers</i>	Jan 10, 2022
CSUS Summer Grant Program	Remote
Discussion leader (with Analisa Flores, UC Riverside)	
<i>Challenges and Successes of Emergency Online Teaching: Where Do We Go From Here?</i>	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) Course first offered Spring 2023
  - Statistical Learning (Stat 140B / 196M) Course first offered Spring 2024
  - Community Service Learning in Statistics (Stat 191) Course first offered Fall 2025
  - Statistics Capstone (Stat 192) Course first offered Spring 2026

### Faculty Senate

- General Education / Graduation Requirements Course Review Subcommittee
  - Committee Chair (one year terms) 2021 - 2027
- General Education / Graduation Requirements Policy Committee
  - Liaison to the General Education / Graduation Requirements Course Review Subcommittee 2025 - 2028
- Alternate Senator, Department of Mathematics and Statistics 2025 - 2026

### College of Natural Sciences and Mathematics

- Academic Council 2024 - 2027
- Executive Committee Chair 2025 - 2026

### Committees Served, Department of Mathematics and Statistics

- Advising 2023 - 2026
- Calculus 2020 - 2021
- Curriculum 2020 - 2021; 2022 - 2023
- MAA MathFest (*ad hoc* 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 - 2026
- · Committee Chair 2022 - 2024
- Statistics Core Curriculum 2024 - 2026

· Committee Chair	2024 - 2025
Faculty Advisor, Student Organizations	
· Women in STEM Club	2023 - ongoing
Judge, Spring Student Research and Creative Activity Symposium	2025
Outside Member, Strategic Research Analyst Search Committee, Student Success Office	2023
Editor, Cummings J. <i>Proofs, A Long-Form Mathematics Textbook.</i>	2021
<b>University of California, Riverside</b>	
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

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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, <i>An introduction to second-generation p-values and their use in statistical practice</i> by Drs. Jeffrey Blume and Megan Murray (September 1, 2022).	

### Mathematical Association of America

Co-Coordinator - Gold '21 Cohort, <i>Project NExT (New Experiences in Teaching)</i>	
· Organized six Project NExT Sessions for MathFest in Philadelphia, PA.	Summer 2022
· <i>Maximizing In-Person Student Engagement After Online Learning</i>	
· <i>Drowning in Homework: Making Grading More Efficient</i>	
· <i>Navigating Student Mental Health Issues</i>	
· <i>So You Want to Build a New Course: Curriculum Development</i>	
· <i>Project NExT Made Us Do It: Successes, Failures, and What We Wished We Had Known Before</i>	
· <i>Supporting a Co-Curricular Math Community</i>	
· Coordinated six Project NExT Sessions for the Joint Mathematical Meeting (remote).	Winter/Spring 2022
· <i>Mastery-Based Grading</i>	
· <i>Undergraduate Research</i>	
· <i>De-Westernizing the History of Mathematics</i>	
· <i>Establishing Interdisciplinary Collaborations</i>	
· <i>Advocating for Students of Color</i>	

- *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 [lgpperry.github.io/IntroStats/](https://lgpperry.github.io/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/](http://statehornet.com/2021/04/sac-state-students-fall-2021-in-person-opinions/)