

Robin A. Donatello

Associate Professor of Statistics

Curriculum Vitae
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Education

2007 - 2013	Dr. Public Health in Biostatistics	University of California, Los Angeles
2005 - 2007	Masters of Science in Biostatistics	University of California, Los Angeles
2001 - 2005	Bachelors of Science - Statistics	California State University, Chico
2001 - 2005	Bachelors of Science - Biology, Minor in Chemistry	California State University, Chico

Employment

2020 - Present	Associate Professor	Department of Mathematics and Statistics, California State University, Chico
2014 - 2020	Assistant Professor	Department of Mathematics and Statistics, California State University, Chico
2012 - 2015	Database Administrator	Keeping It Real LAC ➤ Joint employment between the Institute for Health Promotion and Disease Prevention Research, University of Southern California and the Los Angeles County Department of Public Health, HIV and STD Program Office
2007 - 2012	Data Analyst	Project Connect, Health Research Association, University of Southern California

Academic leadership

- **Data Science Program Coordinator** (2014-Present)
 - In collaboration with the Department of Computer Science, I developed the Undergraduate Certificate in Data Science at CSU, Chico. Program started Fall 2018
 - Currently working to expand into the Freshman/GE and Graduate space; Create a student internship program, and fee-based data-services practice.
 - Website developer and maintainer for campus based website (<https://www.csuchico.edu/datascience>) and external blog based website (<http://datascience.csuchico.edu>)
- **DataFest Event Coordinator** (2018-Present)
 - Organize and host the annual DataFest at Chico State, a weekend long data hackathon where teams of undergraduate students tackle a surprise real world dataset and compete for fame and prizes.
 - Website: <https://chicodatafest.netlify.app/>

Teaching

I teach the Intro and Applied Statistics courses for majors and non-majors, as well as an Intro and Advanced Data Science course at Chico State. Courses marked with a [†] indicate that I developed and introduced that course. Most of my course materials are available on my website: www.norcalbiostat.com.

- **Statistics** (Math 105) - General Education
- [†]**Introduction to R** (Math 130) - Short course
- **Applied Statistics I** (Math 315) - Non Majors, mostly Natural Sciences
- **Applied Statistics II** (Math 456) - Majors, Minors, Data Science Certificate
- [†]**Introduction to Data Science** (Math 385)
- [†]**Advanced Topics in Data Science** (Math 485)
- [†]**Data Science Project Capstone** (Math 490)

Workshops

In addition to teaching traditional courses, I occasionally teach reproducible research and data analysis skills using R at workshops.

2020	Promote yourself - make your own professional website without knowing HTML International Conference on Health Policy Statistics ➤ https://norcalbiostat.github.io/ichps20_workshops/	San Diego, California
2019	Data Carpentry Workshop - Center for Healthy Communities Chico State Data Science Initiative ➤ https://csucdsi.github.io/2019-06-19-chicostate/	Chico, CA
2018	Data Carpentry Workshop - General Campus Chico State Data Science Initiative ➤ https://csucdsi.github.io/2018-08-13-chicostate/	Chico, CA
2017	Data Carpentry Workshop UC Davis Data Lab ➤ Wandering Helper	Davis, CA

Grants & Contracts

2020	College of BSS Strategic Performance Award Building Community of Data-Science Enabled Research in the Social Sciences ➤ Project Report: https://data485-s20.github.io/campfire_tweets/	Internal \$2500
2018-2020	NSF IUOE A Data-Driven, Multidisciplinary Curriculum Providing Access to the Data Analytics Economy through Project-based Learning ➤ Implementation partner. During S20 providing grant-wide student support in R programming. Abstract: https://www.nsf.gov/awardsearch/showAward?AWD_ID=1820766	External \$1600
2017	Exceptional Levels of Service to Students Digging deeper to look beyond the DFW rate: A practical guide to analyze student success interventions. ➤ Guidelines for using campus owned data in rigorous program evaluation of student success interventions.	Internal \$5200
2016	Department of Chemistry and Biochemistry Mining historical data for predictive intervention in General Chemistry Course Redesign. ➤ Project Report: https://norcalbiostat.github.io/chem_ss	Internal \$5200
2015	American Statistical Association Conference Travel Grant ASA Statistical Programmers and Analysts Section ➤ Funding to attend 2015 Joint Statistical Meetings	External \$500

Consulting

I often consult with internal and external people and organizations to provide Statistical or Data Science assistance that do not directly result in a manuscript.

2019-Present	Jennifer Wilking, Susan Roll	Department of Political Science, School of Social Work, CSU Chico
	➤ Statistical analysis support for a housing insecurity study.	
2019	Brady Hayes	Enloe Medical Center, Chico, CA
	➤ Statistical consulting for PHd Thesis research	
2018-Present	Center for Healthy Communit	CSU, Chico
	➤ On retainer as Interim Research & Evaluation co-lead. Supervise data science interns and technical program analysts. Automation of program administrative tasks. Creating scripts to automate program reporting, research analysis, manuscript writing, grant writing	
2018	Dr. Ben Van Deusen	Department of Science Education, CSU Chico
	➤ R programming assistance for missing data models.	
2017	BLDD Architects	Illinois
	➤ Data analysis to analyze the effect of building and campus structural changes on middle- and high-school students academic performance and rate of referrals to the principal.	
2016	Driscoll Berries	Red Bluff, CA
	➤ Sampling design and analysis of the effects of varying growing conditions on strawberry plants.	
2015-present	Keeping It Real Together	Los Angeles, CA
	➤ Program evaluation of a federally funded Teen Pregnancy Prevention program.	
2014-2017	Dr. Bill Loker	CSUC Department of Undergraduate Education
	➤ Predictive modeling of students at risk of dropping out after the second year.	
2013-2015	UCLA Fielding School of Public Health, Center for Health Advancement	Los Angeles, CA
	➤ Create and implement methods to improve the quality of local area estimates in LA County and forecast changes in risk factors and disease rates through 2030 using empirical Bayesian methods and MCMC simulation.	
2013	Absolute Return for Kids	Mozambique, Africa
	➤ Assess the impact of mobile technology on patient retention in HIV care. Study design, enrollment simulation using and power analysis.	
2013	UCLA Luskin School of Public Affairs	Los Angeles, CA
	➤ Assess the correlation between DUI arrestees with prior violent criminal histories and motor vehicle crashes resulting in death or injury. Study design, statistical consultation, and data analysis.	
2011	Dr. David S. Finley	Institute of Urologic Oncology, David Geffen School of Medicine, UCLA
	➤ Analysis of staining patterns for aggressive tumors.	
2009-11	Media Genus, Diversified Mercury Communications, LLC	Santa Monica, CA
	➤ Predictive marketing analysis using Bayesian hierarchical modeling and MCMC on large and sparse data.	
2008	Dr. Aarne Jyrala	Heart Institute, Department of Cardiothoracic Surgery, Good Samaritan Hospital
	➤ Analyzed the effect of Euroscore variables and hyperthyroidism on post-operative patients undergoing renal failure.	
2007	Agata Rozga, graduate student	UCLA Center for Autism Research and Treatment
	➤ Consult on analysis and interpretation of the effects of withdrawing attention on infants with autistic siblings.	
2007	Dennis Corbin	CSU Dominguez Hills
	➤ Data analysis on the relationship between spirituality and HIV/Sexual risk behaviors in teens.	

2007	Dr. Judith Currier	UCLA School of Medicine
	➤ Data analysis of Coronary Atherosclerosis in HIV-infected Patients	

Professional Society Memberships

2007 - Present	American Statistical Association	Member
	Sections on Statistics and Data Science Education, Statistical Programmers and Analysts, Teaching Statistics in Health Sciences	
2012 - 2013	Western Users of SAS Software	Student Member
2011 - 2013	American Public Health Association	Member
	Section on Public Health Statistics	

Professional Service

2016-2020	Western Users of SAS Software Annual Conference and Educational Forum	Conference Planning Committee
	Academic Scholarship Co-Chair	
2015	Joint Statistical Meetings	Conference Session Chair
	Invited oral presentations on Big Data	
2014	American Public Health Association 2012 Annual Conference	Conference Abstract Reviewer
2014	The American Statistician	Publication Reviewer
2013	Western Users of SAS Software Annual Conference and Educational Forum	Conference Session Chair
	Section on Statistics and Analytics	
2011	American Journal of Public Health	Publication Reviewer
2009	Joint Statistical Meetings	Conference Session Chair
	Section on Bayesian Statistical Science	

Publications

Books

1. Afifi, A, S May, R Donatello, and V Clark (2020). *Practical Multivariate Analysis*. 6th ed. Boca Raton, FL: Chapman and Hall/CRC.

Peer-reviewed manuscripts

1. Knipe, GA, SD Fox, and RA Donatello (2020). Deliberate Practice in Simulation: Evaluation of Repetitive Code Training on Nursing Students' BLS Team Skills. *Clinical Simulation in Nursing* **48**, 8–14.
2. Nissen, J, R Donatello, and B Van Dusen (July 2019). Missing data and bias in physics education research: A case for using multiple imputation. *Phys. Rev. Phys. Educ. Res.* **15** (2), 020106.
3. Rohrbach, LA, RA Donatello, BD Moulton, AA Afifi, KI Meyer, and CJD Rosa (2019). Effectiveness Evaluation of It's Your Game: Keep It Real, a Middle School HIV/Sexually Transmitted Infection/Pregnancy Prevention Program. *Journal of Adolescent Health* **64**(3), 382–389.
4. Fleming, EJ, T Woyke, RA Donatello, MMM Kuypers, A Sczyrba, S Littmann, and D Emerson (2018). Insights into the Fundamental Physiology of the Uncultured Fe-Oxidizing Bacterium *Leptothrix ochracea*. *Applied and Environmental Microbiology* **84**(9). Ed. by HL Drake. eprint: <https://aem.asm.org/content/84/9/e02239-17.full.pdf>.
5. Dittus, P, C Harper, J Becasen, R Donatello, and K Ethier (Nov. 2017). Structural Intervention With School Nurses Increases Receipt of Sexual Health Care Among Male High School Students. *Journal of Adolescent Health* **62**.
6. Donatello, RA, CJD Rosa, BD Moulton, EQ Chung, R Viola, LA Rohrbach, and AA Afifi (2017). Patterns of Sexual Experience Among Urban Latino and African American Ninth Grade Students. *The Journal of Sex Research* **54**(4-5). PMID: 27135138, 619–630.
7. Montoya, V, D Ludwig, E Simchuk, R Donatello, A Coates, and J Todd (2017). Preventing nausea after sleeve gastrectomy. What works and what doesn't. *Surgery for Obesity and Related Diseases* **13** (10), 206–207.
8. Dittus, PJ, CJ De Rosa, RA Jeffries, AA Afifi, WG Cumberland, EQ Chung, E Martinez, PR Kerndt, and KA Ethier (2014). The Project Connect Health Systems Intervention: Linking sexually experienced youth to sexual and reproductive health care. *Journal of Adolescent Health* **55**(4), 528–534.
9. Gorbach, PM, H Pines, M Javanbakht, RE Weiss, R Jeffries, RD Cranston, EJ Fuchs, M Hezerah, S Brown, A Voskanian, et al. (2014). Order of Orifices: Sequence of Condom Use and Ejaculation by Orifice During Anal Intercourse Among Women: Implications for HIV Transmission. *JAIDS Journal of Acquired Immune Deficiency Syndromes* **67**(4), 424–429.
10. Dittus, P, R Jeffries, C De Rosa, P Loosier, and K Ethier (2013). Sexual Behavior and Receipt of Sexual and Reproductive Healthcare Among Sexually Experienced Sexual Minority Youth: The Role of Parenting Behaviors. *Journal of Adolescent Health* **52**(2), S13–S14.
11. Logan, J, D Finley, N Kroeger, R Donatello, A Afifi, J Said, F Kabbinavar, A Belldgrun, and A Pantuck (Apr. 2013). Expression Patterns of seven molecular markers in chromophobe renal cell carcinoma with distinct expression changes identified in high grade lesions. *The Journal of Urology* **189**, e193.
12. De Rosa, CJ, RA Jeffries, AA Afifi, WG Cumberland, EQ Chung, PR Kerndt, KA Ethier, E Martinez, RV Loya, and PJ Dittus (2012). Improving the Implementation of a Condom Availability Program in Urban High Schools. *Journal of Adolescent Health* **51**(6), 572–579.
13. Gorbach, PM, RE Weiss, E Fuchs, RA Jeffries, M Hezerah, S Brown, A Voskanian, E Robbie, P Anton, and RD Cranston (2012). The slippery slope: lubricant use and rectal sexually transmitted infections: a newly identified risk. *Sexually Transmitted Diseases* **39**(1), 59.
14. Jyrala, A, RE Weiss, RA Jeffries, and GL Kay (2012). Is Hypothyroidism Overlooked in Cardiac Surgery Patients? *Open Journal of Thoracic Surgery* **2**(02), 29.
15. Dittus, P, C De Rosa, R Jeffries, A Afifi, W Cumberland, K Ethier, E Chung, E Martinez, R Loya, and P Kerndt (2011). Employing school nurses as a healthcare point of contact for male high school students: a school-based intervention to prevent STD, HIV, and teen pregnancy. *Sexually Transmitted Infections* **87**(Suppl 1), A88–A89.
16. Dittus, P, C De Rosa, R Jeffries, A Afifi, W Cumberland, P Loosier, K Ethier, E Chung, E Martinez, and P Kerndt (2011). The project connect health systems intervention: STD screening and HIV testing outcomes for female adolescents. *Sexually Transmitted Infections* **87**(Suppl 1), A56–A56.
17. Dittus, P, P Loosier, C DeRosa, K Ethier, R Jeffries, A Afifi, W Cumberland, E Chung, E Martinez, and P Kerndt (2011). The Project Connect Health Systems Intervention: Sexual and Reproductive Health Outcomes for Sexually Active Youth. *Journal of Adolescent Health* **48**(2), S9.
18. Finley, DS, B Shuch, JW Said, G Galliano, RA Jeffries, AA Afifi, B Castor, C Magyar, A Sadaat, FF Kabbinavar, et al. (2011). The chromophobe tumor grading system is the preferred grading scheme for chromophobe renal cell carcinoma. *The Journal of urology* **186**(6), 2168–2174.

19. Gorbach, PM, RE Weiss, R Jeffries, M Javanbakht, LN Drumright, ES Daar, and SJ Little (2011). Behaviors of recently HIV-infected men who have sex with men in the year post-diagnosis: effects of drug use and partner types. *Journal of acquired immune deficiency syndromes (1999)* **56**(2), 176.
20. Jyrala, A, RE Weiss, RA Jeffries, and GL Kay (2010). Effect of mild renal dysfunction (s-crea 1.2–2.2 mg/dl) on presentation characteristics and short-and long-term outcomes of on-pump cardiac surgery patients. *Interactive cardiovascular and thoracic surgery* **10**(5), 777–782.
21. Micheletti, RG, GA Fishbein, MC Fishbein, EJ Singer, RE Weiss, RA Jeffries, and JS Currier (2009). Coronary atherosclerotic lesions in human immunodeficiency virus–infected patients: a histopathologic study. *Cardiovascular Pathology* **18**(1), 28–36.

Presentations

1. De Rosa, C, R Jeffries, E Chung, S Walker, and B Moulton (2014). Implementing an evidence-based sexual health education curriculum in middle schools: Implementation fidelity and teacher reporting over two implementation years. In: *SEXUALLY TRANSMITTED DISEASES*. Vol. 41. LIPPINCOTT WILLIAMS & WILKINS TWO COMMERCE SQ, 2001 MARKET ST, PHILADELPHIA, PA 19103 USA, pp.S112–S112.
2. Jeffries, R (2013). Patterns of sexual experience among an urban sample of Latino and African-American 9th grade students. In: *141st APHA Annual Meeting (November 2–November 6, 2013)*. APHA.
3. Jeffries, R (2012). Early Adolescents' Expectations about Future Sexual Behavior and Sexual Initiation One Year Later. In: *2012 National STD Prevention Conference*. CDC.
4. Gorbach, P, R Weiss, R Jeffries, E Fuchs, M Hezarah, S Brown, et al. (2010). Rectal lubricant use and risk for rectal STI. In: *2010 International Microbicides Conference*.