

Robin Donatello

Associate Professor of Statistics

Education

- 2007 - 2013 Dr. Public Health in Biostatistics (DrPH). 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 - Associate Professor. Department of Mathematics and Statistics, California State University, Chico
- 2014 - 20 Assistant Professor. Department of Mathematics and Statistics, California State University, Chico
- 2018 - Research Manager V. Center for Healthy Communities, Chico State Enterprises
- 2012 - 15 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 - 12 Data Analyst. Project Connect, Health Research Association, University of Southern California

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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 regularly teach Applied and Theoretical Statistics courses, Data Science courses, and applied research/data science internships. The majority of my teaching materials are published through Github and available on my course website.

- **General Education**
 - Statistics (Math 105) - General Education
- **Statistics**
 - Applied Statistics I (Math 315) - Non Majors, mostly Natural Sciences
 - Applied Statistics II (Math 456) - Majors, Minors, Data Science Certificate
 - Probability and Statistics I (Math 350) - Calculus & simulation based probability for all math & some engineering majors.
- **Data Science:** *All courses listed were developed and introduced by me as part of the Data Science Certificate.*
 - Introduction to R (Math 130) - 5 week short course
 - Introduction to Data Science (Math 385)
 - Advanced Topics in Data Science (Math 485)
 - Data Science Project Capstone/Internship (Math 490)
- **Data Skills Workshops** In addition to teaching traditional courses, I occasionally teach reproducible research and data analysis skills using R at workshops. I am a certified Carpentry Instructor.

Grants & Contracts

- 2021-2025 **USDA NIFA Hispanic Serving Institution Education Grant**, *External grant \$275k*, Enriching education at the intersection of Data Analytics and FANH through professional experiential learning and curriculum development. .
 - Project webpage: <https://www.dataanalytics4fanh.science/>
- 2020 **College of BSS Strategic Performance Award**, *Internal award \$2,500*, Building Community of Data-Science Enabled Research in the Social Sciences.
 - Project Report: https://data485-s20.github.io/campfire_tweets/

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- 2018-2020 **NSF IUSE**, *External grant \$1,600* , 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
- 2017 **Exceptional Levels of Service to Students**, *Internal award \$5,200* , 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.
- 2016 **Department of Chemistry and Biochemistry**, *Internal award \$5,200* , Mining historical data for predictive intervention in General Chemistry Course Redesign..
- Project Report: https://norcalbiostat.github.io/chem_ss
- 2015 **American Statistical Association Conference Travel Grant**, *External grant \$500* , ASA Statistical Programmers and Analysts Section.
- Funding to attend 2015 Joint Statistical Meetings

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 Communités**, *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.

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- 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 **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
- 2015 Joint Statistical Meetings. Conference Session Chair
- 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
- 2011 American Journal of Public Health. Publication Reviewer
- 2009 Joint Statistical Meetings. Conference Session Chair

Publications

Books

1. Afifi, A., May, S., Donatello, R., & Clark, V. (2020). *Practical multivariate analysis* (6th ed.). Chapman; Hall/CRC.

Manuscripts

1. Bianchini, E. A., Bogiatto, R. J., Donatello, R. A., Casazza, M. L., Ackerman, J. T., Cruz, S. E. W. D. L., & Cline, T. D. (2022). Host correlates of avian influenza virus infection in wild waterfowl of the sacramento valley, california. *Avian Diseases*, 66, 20–28. <https://doi.org/10.1637/aviandiseases-D-21-00071>
2. Kornbluh, M., Wilking, J., Roll, S., & Donatello, R. (2022). Exploring housing insecurity in relation to student success. *Journal of American College Health*, 0(0), 1–5. <https://doi.org/10.1080/07448481.2022.2068016>
3. Knipe, G. A., Fox, S. D., & Donatello, R. A. (2020). Deliberate practice in simulation: Evaluation of repetitive code training on nursing students' BLS team skills. *Clinical Simulation in Nursing*, 48, 8–14. <https://doi.org/10.1016/j.ecns.2020.08.001>
4. Nissen, J., Donatello, R., & Van Dusen, B. (2019). Missing data and bias in physics education research: A case for using multiple imputation. *Phys. Rev. Phys. Educ. Res.*, 15, 020106. <https://doi.org/10.1103/PhysRevPhysEducRes.15.020106>
5. Rohrbach, L. A., Donatello, R. A., Moulton, B. D., Afifi, A. A., Meyer, K. I., & Rosa, C. J. D. (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. <https://doi.org/10.1016/j.jadohealth.2018.09.021>
6. Fleming, E. J., Woyke, T., Donatello, R. A., Kuypers, M. M. M., Sczyrba, A., Littmann, S., & Emerson, D. (2018). Insights into the fundamental physiology of the uncultured fe-oxidizing bacterium leptothrix ochracea. *Applied and Environmental Microbiology*, 84(9). <https://doi.org/10.1128/AEM.02239-17>
7. Dittus, P., Harper, C., Becasen, J., Donatello, R., & Ethier, K. (2017). Structural intervention with school nurses increases receipt of sexual health care among male high school students. *Journal of Adolescent Health*, 62. <https://doi.org/10.1016/j.jadohealth.2017.07.017>
8. Donatello, R. A., Rosa, C. J. D., Moulton, B. D., Chung, E. Q., Viola, R., Rohrbach, L. A., & Afifi, A. A. (2017). Patterns of sexual experience among urban latino and african american ninth grade students. *The Journal of Sex Research*, 54(4-5), 619–630. <https://doi.org/10.1080/00224499.2016.1164800>
9. Montoya, V., Ludwig, D., Simchuk, E., Donatello, R., Coates, A., & Todd, J. (2017). Preventing nausea after sleeve gastrectomy. What works and what doesn't. *Surgery for Obesity and Related Diseases*, 13, 206–207. <https://doi.org/10.1016/j.soard.2017.09.460>
10. Dittus, P. J., De Rosa, C. J., Jeffries, R. A., Afifi, A. A., Cumberland, W. G., Chung, E. Q., Martinez, E., Kerndt, P. R., & Ethier, K. A. (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.

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11. Gorbach, P. M., Pines, H., Javanbakht, M., Weiss, R. E., Jeffries, R., Cranston, R. D., Fuchs, E. J., Hezerah, M., Brown, S., Voskanian, A.others. (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. <https://doi.org/DOI: 10.1097/QAI.0000000000000314>
12. Logan, J., Finley, D., Kroeger, N., Donatello, R., Afifi, A., Said, J., Kabbinavar, F., Belldegrün, A., & Pantuck, A. (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. <https://doi.org/10.1016/j.juro.2013.02.1861>
13. Dittus, P., Jeffries, R., De Rosa, C., Loosier, P., & Ethier, K. (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. <https://doi.org/https://doi.org/10.1016/j.jadohealth.2012.10.036>
14. Gorbach, P. M., Weiss, R. E., Fuchs, E., Jeffries, R. A., Hezerah, M., Brown, S., Voskanian, A., Robbie, E., Anton, P., & Cranston, R. D. (2012). The slippery slope: Lubricant use and rectal sexually transmitted infections: A newly identified risk. *Sexually Transmitted Diseases*, 39(1), 59. <https://doi.org/DOI: 10.1097/OLQ.0b013e318235502b>
15. Jyrälä, A., Weiss, R. E., Jeffries, R. A., & Kay, G. L. (2012). Is hypothyroidism overlooked in cardiac surgery patients? *Open Journal of Thoracic Surgery*, 2(02), 29.
16. De Rosa, C. J., Jeffries, R. A., Afifi, A. A., Cumberland, W. G., Chung, E. Q., Kerndt, P. R., Ethier, K. A., Martinez, E., Loya, R. V., & Dittus, P. J. (2012). Improving the implementation of a condom availability program in urban high schools. *Journal of Adolescent Health*, 51(6), 572–579.
17. Gorbach, P. M., Weiss, R. E., Jeffries, R., Javanbakht, M., Drumright, L. N., Daar, E. S., & Little, S. J. (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. <https://doi.org/10.1097/QAI.0b013e3181ff9750>
18. Finley, D. S., Shuch, B., Said, J. W., Galliano, G., Jeffries, R. A., Afifi, A. A., Castor, B., Magyar, C., Sadaat, A., Kabbinavar, F. F.others. (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. Dittus, P., De Rosa, C., Jeffries, R., Afifi, A., Cumberland, W., Ethier, K., Chung, E., Martinez, E., Loya, R., & Kerndt, P. (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.
20. Dittus, P., Loosier, P., DeRosa, C., Ethier, K., Jeffries, R., Afifi, A., Cumberland, W., Chung, E., Martinez, E., & Kerndt, P. (2011). The project connect health systems intervention: Sexual and reproductive health outcomes for sexually active youth. *Journal of Adolescent Health*, 48(2), S9.
21. Dittus, P., De Rosa, C., Jeffries, R., Afifi, A., Cumberland, W., Loosier, P., Ethier, K., Chung, E., Martinez, E., & Kerndt, P. (2011). The project connect health systems intervention: STD screening and HIV testing outcomes for female adolescents. *Sexually Transmitted Infections*, 87(Suppl 1), A56–A56.
22. Jyrälä, A., Weiss, R. E., Jeffries, R. A., & Kay, G. L. (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. <https://doi.org/D0I:10.1510/icvts.2009.231068>

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23. Micheletti, R. G., Fishbein, G. A., Fishbein, M. C., Singer, E. J., Weiss, R. E., Jeffries, R. A., & Currier, J. S. (2009). Coronary atherosclerotic lesions in human immunodeficiency virus-infected patients: A histopathologic study. *Cardiovascular Pathology*, 18(1), 28–36.

Presentations

1. De Rosa, C., Jeffries, R., Chung, E., Walker, S., & Moulton, B. (2014). Implementing an evidence-based sexual health education curriculum in middle schools: Implementation fidelity and teacher reporting over two implementation years. *SEXUALLY TRANSMITTED DISEASES*, 41, S112–S112.
2. Jeffries, R. (2013). Patterns of sexual experience among an urban sample of latino and african-american 9th grade students. *141st APHA Annual Meeting (November 2-November 6, 2013)*.
3. Jeffries, R. (2012). Early adolescents' expectations about future sexual behavior and sexual initiation one year later. *2012 National STD Prevention Conference*.
4. Gorbach, P., Weiss, R., Jeffries, R., Fuchs, E., Hezerah, M., Brown, S.others. (2010). Rectal lubricant use and risk for rectal STI. *2010 International Microbicides Conference*.