# David J.X. Gonzalez

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#### Education

PhD, Stanford University, School of Earth, Energy, and Environmental Sciences Emmett Interdisciplinary Program in Environment and Resources, *expected* 2020 Co-Advisors: Mark Cullen, Marshall Burke, Gary Shaw Qualifying fields: Environmental Epidemiology, Applied Econometrics

#### MS, Stanford University, School of Medicine

Epidemiology and Clinical Research, Global Health Concentration, 2018 Thesis: Oil and gas drilling and risk of preterm birth in the San Joaquin Valley, California

MESc, Yale University, School of Forestry and Environmental Studies Environmental Science, Global Health Concentration, 2015 Thesis: Mercury exposure and risk among women of childbearing age in the Peruvian Amazon

BS, University of California, Davis, College of Biological Sciences Evolution and Ecology (Honors), 2011

Thesis: Effects of global change on alpine microbial communities and nitrogen cycling

#### Research Interests

environmental epidemiology; perinatal epidemiology; environmental justice; health disparities; global health; applied econometrics; environmental science; social determinants of health

## Refereed Journal Articles

- [3] Gonzalez, David J.X., Aubrey Arain, and Luis E. Fernandez. 2019. Mercury exposure, risk factors, and perceptions among women of childbearing age in an artisanal gold mining region of the Peruvian Amazon. Environmental Research.
- [2] Marklein, Alison R., Joy B. Winbourne, Sara K. Enders, **David J.X. Gonzalez**, Tiff L. van Huysen, Jorge E. Izquierdo, Derrick R. Light, Daniel Liptzin, Kimberley E. Miller, Scott L. Morford, Robert A. Norton, and Benjamin Z. Houlton. 2015 <u>Mineralization ratios of nitrogen and phosphorous from decomposing litter in temperate versus tropical forests</u>. *Global Ecology and Biogeography*.

[1] Farrer, Emily C., Isabel W. Ashton, Marko J. Spasojevic, Shiyang Fu, **David J.X. Gonzalez**, and Katharine N. Suding. 2015. <u>Indirect effects of global change accumulate to alter plant diversity but not ecosystem function in alpine tundra</u>. *Journal of Ecology*.

## Manuscripts Under Review

- [2] Gonzalez, David J.X., Allison R. Sherris, Wei Yang, David K. Stevenson, Amy M. Padula, Michael Baiocchi, Marshall Burke, Mark R. Cullen, and Gary M. Shaw. Oil and gas drilling and risk of spontaneous preterm birth in the San Joaquin Valley, California: A case-control study.
- [1] Gonzalez, David J.X., Jesus Oliviero-Verbal, Karina Caballero Gallardo, Katy Ashe, Julio Araujo, Chris Field, and Luis E. Fernandez. Disparities in methylmercury exposure among subpopulations of concern in Madre de Dios, Peru.

#### Other Publications

- [6] <u>Treaty Does Not Stop Illicit Mercury Trade in South America.</u> *YaleGlobal.* February 2018, David J.X. Gonzalez.
- [5] Opportunities, Not Oppression, to Stop Illegal Mining in the Peruvian Amazon. YaleGlobal. February 2016. David J.X. Gonzalez.
- [4] How Scientific Activism Helped Bring Flint's Lead Crisis to Light. ActivistLab. February 2016. David J.X. Gonzalez.
- [3] Fear in the time of Ebola. Yale Daily News. December 2015. David J.X. Gonzalez and Emma Roth.
- [2] <u>Fear, Politics, and Ebola: How Quarantines Hurt the Fight Against Ebola and Violate the Constitution</u>. American Civil Liberties Union and the Yale Global Health Justice Program. 2015. Alexander Abdo, Esha Bhandari, Jay Stanley, Samantha Batman, Ryan Boyko, Erinma Kalu, Emma Roth, Rose Carmen Goldberg, and **David J.X. Gonzalez**.
- [1] Wind, Bile, and Phlegm. Sage Magazine. March 2014. David J.X. Gonzalez.

## Grants and Fellowships

Diversifying Academia, Recruiting Excellence (DARE) Doctoral Fellowship, Stanford University (\$92,000 + tuition)	2019-
Stanford Graduate Fellowship in Science & Engineering, Stanford University (\$120,000 + tuition)	2016-
Ford Foundation Predoctoral Fellowship, The National Academies of Sciences, Engineering, and Medicine (\$72,000)	2016-19

Enhancing Diversity in Graduate Education (EDGE) Doctoral Fellowship, Stanford University (\$5,500)	2016-18
Fox International Fellowship, Yale University and El Colegio de México (\$20,000)	2015-16
Regents Scholarship, UC Davis (\$30,000)	2007-11

#### Awards and Honors

Graduate Scholar-in-Residence, El Centro Chicano y Latino, Stanford University	2019-
Graduate Public Service Fellowship, Haas Center for Public Service, Stanford University	2017-18
Alumni Association Board Scholarship, Yale School of Forestry & Environmental Studies; Pinkerton Prize for Environmental Education, University of California, Davis; Integrated Studies Honors Program, University of California, Davis; National Merit Scholar; National Hispanic Scholar	Pre-PhD

#### Presentations

### **Invited Talks**

- [5] Latinxs and the Environment Summit: Designing Our Future. April 27, 2019. Panel 4: Health and the Environment: Collective action for healthier communities. UC Berkeley, Berkeley, CA, USA. (*Panelist*)
- [4] Epidemiology Seminar Series, Faculty of Medicine, National Autonomous University of Mexico. May 2016. A Toxic Supply Chain: The health impacts of artisanal gold and mercury mining in Latin America. Mexico City, Mexico. (*Individual*)
- [3] 2nd Forum on Mercury and Environmental Public Health in Madre de Dios, National Amazonian University of Madre de Dios. November 2015. Mercury and women's health in Madre de Dios, Peru. Puerto Maldonado, Peru. (Individual, in Spanish)
- [2] A systematic review of studies of mercury contamination and exposure in Madre de Dios, Peru. March 2015. International Congress on Global Environmental Health, Lima, Peru. (Individual, in Spanish)
- [1] 1st Forum on Mercury and Public Health in Madre de Dios, National Amazonian University of Madre de Dios. November 2014. Mercury exposure among women of childbearing age in urban communities of Madre de Dios, Peru. Puerto Maldonado, Peru. (*Individual, in Spanish*)

#### **Refereed Conference Presentations**

[6] **David J.X. Gonzalez**, Katy Ashe, Julio Araujo-Flores, Jesus Oliviero-Verbal, Karina Caballero-Gallardo, Christopher B. Field, and Luis E. Fernandez. January 2020. Disparities in

- methylmercury exposure among subpopulations of concern in Madre de Dios, Peru. Stanford Global Health Research Convening, Stanford, California, USA. (*Poster*)
- [5] David J.X. Gonzalez, Allison R. Sherris, Wei Yang, Marshall Burke, Mark R. Cullen, Gary M. Shaw. August 2019. Oil and gas development activity and spontaneous preterm birth risk in California. Annual Meeting of the International Society for Environmental Epidemiology (ISEE), Utrecht, The Netherlands. (*Poster*)
- [4] David J.X. Gonzalez, Allison R. Sherris, Wei Yang, David K. Stevenson, Michael Baiocchi, Marshall Burke, Mark R. Cullen, Gary M. Shaw. June 2019. Oil and gas drilling and spontaneous preterm birth in the San Joaquin Valley, California. Annual Meeting of the Society for Pediatric and Perinatal Epidemiologic Research (SPER), Minneapolis, Minnesota, USA. (*Poster*)
- [3] **David J.X. Gonzalez** and Aubrey Langeland. July 2017. Mercury exposure in women of childbearing age in an artisanal gold mining region of the Peruvian Amazon: A cross-sectional study. International Conference on Mercury as a Global Pollutant, Providence, Rhode Island, USA. (*Poster*)
- [2] David J.X. Gonzalez and Luis Fernandez. June 2015. Trends of mercury exposure in the Peruvian Amazon: Mercury studies of humans and the environment, 1993 to 2015. Association for Environmental Studies and Sciences (AESS), Annual Meeting, San Diego, California, USA. (Oral)
- [1] David J.X. Gonzalez, Katharine N. Suding, and Benjamin Z. Houlton. August 2011. Global change effects on alpine microbial communities and nitrogen cycling. Ecological Society of America, Annual Meeting, Austin, Texas, USA. (*Poster*)

#### **Teaching Experience**

## Instructor of Record

**Instructor**, URBANST 125: Shades of Green: Redesigning and Rethinking the Environmental Justice Movements, Winter 2020

Urban Studies Program, Stanford University

- 5-unit course, 28 undergraduate, master's, and PhD students
- Designed and led course that applied community engaged learning and design thinking to environmental justice issues
- Facilitate quarter-long group service projects with six community partners from the San Francisco Bay Area

Planned and facilitated weekly class sessions covering a range of topics

**Instructor**, UAR 56: Building a Successful Academic Career, Fall 2019 Undergraduate Advising and Research, Stanford University

- 1-unit course, 31 undergraduate students
- Plan and facilitate biweekly class that teaches students in the Frosh Scholars Program about opportunities and resources available across the university

**Instructor**, URBANST 125: Shades of Green: Redesigning and Rethinking the Environmental Justice Movements, Winter 2019

Urban Studies Program, Stanford University

- 5-unit course, 14 undergraduate and master's students
- Designed and led course that applied community engaged learning and design thinking to environmental justice issues
- Facilitate quarter-long group service projects with four community partners
- Planned and facilitated weekly class sessions covering a range of topics

Instructor, UAR 56: Building a Successful Academic Career, Fall 2018 and Winter 2019 Undergraduate Advising and Research, Stanford University

1-unit course, 35 undergraduate students (fall), 17 undergraduates (winter)

Instructor, UAR 56: Building a Successful Academic Career, Fall 2017 and Winter 2018 Undergraduate Advising and Research, Stanford University

1-unit course, 20 undergraduate students (fall), 10 undergraduates (winter)

#### Teaching Assistantships

Teaching Assistant, Graduate School Preparation: The Rhetoric of Research, Summer 2019 Summer Undergraduate Research in Geoscience and Engineering, (SURRGE) Stanford University

- Not for credit, 4 undergraduate students
- Planned and led weekly lessons focused on preparing for graduate school and communicating results from students' independent research projects

Teaching Assistant, EDUC 332: Theory and Practice of Environmental Education, Spring 2018 School of Education, Stanford University

- 5-unit course, 12 students
- Served as liaison between community partner and student group in a project-based community engaged learning course
- Facilitated in-class discussions among students

**Teaching Assistant**, URBANST 125, Shades of Green: Redesigning and Rethinking the Environmental Justice Movements, Winter 2018

Urban Studies Program, Stanford University

- 5-unit course, 18 undergraduate and master's students
- Served as liaison between community partner and student group in a project-based community engaged learning course
- Planned and facilitated a class session on environmental health science

Teaching Assistant, Urban Ecosystem Analysis, Summer 2015 School of Forestry & Environmental Studies, Yale University

3-week short-course, 140 master's students

- Assisted with introductory field- and classroom-based learning
- Designed and facilitated introductory workshop on geospatial analyses

## **Initiated Workshops**

Instructor, <u>How to Make Publication-Quality Maps with R</u>, November 2019 School of Earth, Energy, and Environmental Sciences, Stanford University

4 doctoral student attendees

**Instructor**, Introduction to Spatial Analysis in R, May 2019 School of Earth, Energy, and Environmental Sciences, Stanford University (*Initiated workshop*)

• 12 doctoral student attendees

## Research Experience

Research Experience	
Research Assistant, Center for Energy, Environment, and Sustainability, Wake Forest University	2017-
<ul> <li>Analyze and interpret results from field studies of mercury exposure in Peru</li> <li>Assist in designing and planning human health studies in the Peruvian Amazon</li> </ul>	
Visiting Scholar, El Colegio de México	2015-16
<ul> <li>Participated in academic and cultural exchange as a Fox International Fellow</li> <li>Led independent research project on the mercury supply chain in Latin America and links to artisanal gold mining</li> </ul>	
Mercury Specialist, Department of Global Ecology, Carnegie Institution for Science	2014-15
<ul> <li>Conducted field work and laboratory analyses for studies of mercury contamination and exposure in the Peruvian Amazon</li> </ul>	
Junior Specialist, Global Ecology Lab, Department of Land, Air, and Water Resources, University of California, Davis	2011
<ul> <li>Conducted field work and laboratory analyses for biogeochemical studies</li> </ul>	
Undergraduate Research Fellow, Mountain Research Station, University of Colorado, Boulder	2010
<ul> <li>Conducted independent research on global change and alpine ecology as part of an NSF-sponsored Research Experience for Undergraduates (REU) program</li> </ul>	
Undergraduate Research Fellow, Smithsonian Environmental Research Center	2009
<ul> <li>Conducted independent research on climate change and wetland ecology as part of an NSF-sponsored Research Experience for Undergraduates (REU) program</li> </ul>	

## Departmental and University Service

Coordinator and Mentor, Frosh Scholars Program, El Centro Chicano y Latino, Stanford University	2017-
<ul> <li>Manage the Frosh Scholars Program, which provides instruction, community-building events, and mentorship to Latinx-identified first-year undergraduates</li> <li>Facilitate connections between Frosh Scholars and graduate student mentors</li> <li>Grew the program from 52 total participants in 2017 to 91 participants in 2019</li> <li>Serve as mentor to two undergraduates studying environmental science each year</li> </ul>	
Student Representative, Graduate Recruitment and Diversity (GRAD) Day Planning Committee, Stanford University	2017-
<ul> <li>Assist in organizing annual diversity recruitment event, which attracts approximately 60 prospective students annually</li> <li>Facilitate social events aimed at welcoming and connecting prospective students</li> </ul>	
Wallance Licitor Cahool of Earth Engage and Engineers and Sciences Stanford	2018-19
Wellness Liaison, School of Earth, Energy, and Environmental Sciences, Stanford University	
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University	
<ul><li>University</li><li>Facilitated events aimed at sustaining student mental health and well-being</li></ul>	2017-
<ul> <li>University</li> <li>Facilitated events aimed at sustaining student mental health and well-being</li> <li>Other Service and Volunteering</li> </ul>	
<ul> <li>University</li> <li>Facilitated events aimed at sustaining student mental health and well-being</li> <li>Other Service and Volunteering</li> <li>Volunteer Tutor, East Palo Alto Tennis and Tutoring, Palo Alto, CA</li> <li>Volunteer one hour each week to tutor high school students aspiring to be the first in their respective families to attend college</li> </ul>	
<ul> <li>Facilitated events aimed at sustaining student mental health and well-being</li> <li>Other Service and Volunteering</li> <li>Volunteer Tutor, East Palo Alto Tennis and Tutoring, Palo Alto, CA</li> <li>Volunteer one hour each week to tutor high school students aspiring to be the first in their respective families to attend college</li> <li>Two of my former tutees successfully went on to attend college</li> <li>Interpreter (Spanish-English), Stanford-Pescadero School Community Interpretation</li> </ul>	2017-

#### Memberships

International Society for Environmental Epidemiology (ISEE)

Society for Epidemiologic Research (SER)

Society for Pediatric and Perinatal Epidemiologic Research (SPER)

Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS)

## Certifications

Wilderness First Responder, Wilderness Medicine Institute of NOLS

Rescue Diver, PADI

## Languages

English, native speaker Spanish, fluent, written and spoken