

Eileen L. Evans  
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EDUCATION

<b>Harvard University</b> PhD in Earth and Planetary Sciences Advisor: Brendan J. Meade Dissertation: Geodetic imaging of fault system activity	Cambridge, MA 2014
<b>University of California, Berkeley</b> MA in Geophysics Advisor: Roland Bürgmann Research Project: 3D modeling of the Hayward-Calaveras fault system BA in Geophysics	Berkeley, CA 2008 2007

RESEARCH EXPERIENCE

<b>Assistant Professor</b> , California State University • Developing and maintaining an active research program	Northridge, CA 2018 – present
<b>Mendenhall research fellow</b> , U.S. Geological Survey • Quantify variability in fault slip rate estimates from space geodetic data • Led and organized workshop on geodetic modeling in seismic hazard models • Supervised by Drs. Wayne Thatcher, Fred Pollitz, and Jessica Murray	Menlo Park, CA 2014 – 2017
<b>Graduate research assistant</b> , Harvard University • Used GPS, InSAR, and geologic data to constrain plate tectonic and earthquake cycle activity in Japan and the western United States • Supervised by Dr. Brendan Meade	Cambridge, MA 2008 – 2014
<b>Graduate research assistant</b> , University of California, Berkeley • Led GPS campaign of Hayward fault, modeled Hayward-Calaveras fault interactions • Supervised by Dr. Roland Bürgmann	Berkeley, CA 2007-2008
<b>Undergraduate research assistant</b> , University of California, Berkeley • Led GPS campaign of southern Hayward and Calaveras faults • Supervised by Dr. Roland Bürgmann	Berkeley, CA 2006-2007

TEACHING EXPERIENCE

<b>Assistant Professor</b> , California State University Earth Tectonics and Structure	Northridge, MA Spring 2018
<b>Teaching Fellow</b> , Harvard University Natural Disasters Introduction to Geological Sciences	Cambridge, MA Fall 2012 Fall 2010
<b>Graduate Student Instructor</b> , University of California, Berkeley Earthquakes in your Backyard Introduction to Earth and Planetary Sciences	Berkeley, CA Fall 2007 Spring 2008

Structural Geology

Spring 2008

#### PUBLICATIONS

- EVANS, E.L. (2018), A comprehensive analysis of geodetic slip rate estimates and uncertainties in California, *Bulletin of the Seismological Society of America*
- EVANS, E.L. (2017), Using strain rates to forecast seismic hazards, *Eos*
- F.F. Pollitz, EVANS, E.L. (2017), Implications of the earthquake cycle for inferring fault locking on the Cascadia megathrust, *Geophysical Journal International*
- DeVries, P.M.R. and EVANS, E.L., (2016), Statistical tests of simple earthquake cycle models, *Geophysical Research Letters*
- EVANS, E.L., W.P. Thatcher, F.F. Pollitz, and J.R. Murray (2016), Persistent slip rate discrepancies in the Eastern California shear Zone, *Geology*
- Barbour, A.J., EVANS, E.L., S.H. Hickman, M. Eneva (2016), Subsidence rates at the southern Salton Sea consistent with reservoir depletion, *Journal of Geophysical Research*
- EVANS, E.L., J.P. Loveless, and B.J. Meade (2015), Total variation regularization of geodetically and geologically constrained block models for the western United States, *Geophysical Journal International*
- EVANS, E.L. and B.J. Meade (2012), Geodetic imaging of coseismic slip and postseismic afterslip: Sparsity promoting methods applied to the great Tohoku earthquake, *Geophysical Research Letters*.
- EVANS, E.L., J.P. Loveless, and B.J. Meade (2012), Geodetic constraints on San Francisco Bay Area fault slip rates and potential seismogenic asperities on the partially creeping Hayward fault, *Journal of Geophysical Research*

#### MANUSCRIPTS

- EVANS, E.L. and Sarah S. Minson (in prep), Imaging Cascadia coupling: optimal design for an offshore seafloor geodetic network.

#### INVITED TALKS

- Southern California Earthquake Center Annual Meeting Plenary Speaker – “Strategies for building community-based geodetic models of fault slip rates,” September 2017
- University of Arizona Geosciences Department Seminar – USGS Golden Earthquake Hazards Science Center Seminar – “Imaging active deformation in the western United States,” September 2016.
- USGS Golden Earthquake Hazards Science Center Seminar – “Imaging active deformation in the western United States,” August 2016.
- Sacramento State Geology-Ecology-Environmental Science Colloquium Series – “What can GPS tell us about the earthquake cycle?” February 2016.
- UC Santa Cruz Institute of Geophysics and Planetary Physics (IGPP) Seminar – “Imaging active deformation in the western United States”, January 2016.
- San Jose State Geology Club Seminar – “What can GPS tell us about the earthquake cycle?” November, 2015.
- UC Davis Department Seminar – “Geodetic imaging of the earthquake cycle,” September 2015.
- Berkeley Seismological Laboratory Seminar – “Geodetic imaging of the earthquake cycle,” February 2015.
- USGS Menlo Park Earthquake Science Center Seminar – “Geodetic imaging of the earthquake cycle,” February 2015.
- Princeton University Solid Earth Geophysics Brown Bag Seminar – “Geodetic imaging of the 2011 great Tohoku earthquake with sparsity promoting methods,” April 2012.
- Boston University Solid Earth Seminar – “Geodetic imaging of the 2011 great Tohoku earthquake with sparsity promoting methods,” April 2012.

Appalachian State University Geology Department Seminar – “What can GPS tell us about great earthquakes and the thermal structure of subduction zones?” February 2012.

#### HONORS AND AWARDS

USGS Mendenhall Fellowship (Principal Investigator), 2014-present  
Competitive postdoctoral research fellowship: *Quantifying Variability in Fault Slip Rate Estimates from Geodetic Data*. Resulting publications:

1. *Devries and Evans* (2016)
2. *Evans, Thatcher, Pollitz, and Murray* (2016)
3. *Barbour, Evans, Hickman, and Eneva* (2016)

Star (Special Thanks for Achievement) Award 2015  
*United States Department of the Interior*

Certificate of Distinction in Teaching 2010  
*Harvard University*

Outstanding Student Paper 2007  
*American Geophysical Union Fall Meeting*

#### CONFERENCE PRESENTATIONS

EVANS, E.L. and S. E. Minson (2016), Imaging Cascadia coupling: optimal design for an offshore seafloor geodetic network, Abstract T43F-01 presented at 2016 Fall Meeting, AGU, San Francisco, Calif., 12-16 Dec.

EVANS, E.L. (2017), Strategies for building community-based geodetic models of fault slip rates. Oral Presentation at 2017 SCEC Annual Meeting

EVANS, E.L. (2016), Geodetic slip rate estimates in California, and their uncertainties, Abstract G51A-1080 presented at 2016 Fall Meeting, AGU, San Francisco, Calif., 12-16 Dec.

EVANS, E.L. (2016), Geodetic slip rate estimates in California, and their uncertainties, Poster Presentation at 2016 SCEC Annual Meeting

EVANS, E.L. (2016), (Invited) Geodetic slip rates and uncertainties in the eastern California shear zone and Walker Lane, presented at 2016 Annual Meeting, SSA, Reno, Nevada, 20-22 April.

EVANS, E.L., W.R. Thatcher, F.F. Pollitz, J.R. Murray (2015), Fault slip and distributed deformation in the eastern California shear zone, Abstract T41A-2864 presented at 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.

EVANS, E.L., F.F. Pollitz, W.R. Thatcher (2015), Quantifying variability in geodetic slip rate estimates, Abstract 213 presented at 2015 Fall Meeting, SCEC, Palm Springs, Calif., 14-16 Sept.

Evans, E.L., J.P. Loveless, and B.J. Meade (2015) Total variation regularization of geodetically and geologically constrained block models for the western United States, presented at 2015 Earthscope National Meeting, Stowe, VT, 14-17, June.

EVANS, E.L., F.F. Pollitz, W.P. Thatcher (2015), (Invited) Distributed deformation and fault slip in the eastern California shear zone, presented at 2015 Annual Meeting, SSA, Pasadena, Calif., 21-23 April.

EVANS, E.L., B.J. Meade (2014), Quantizing the complexity of the western United States fault system with geodetically and geologically constrained block models, Abstract G14A-03 presented at 2014 Fall Meeting, AGU, San Francisco, Calif., 15-19 Dec.

EVANS, E.L., B.J. Meade (2014), Quantizing the complexity of the western United States fault system with geodetically and geologically constrained block models, Abstract 229 presented at 2014 Fall Meeting, SCEC, Palm Springs, Calif., 8-11 Sept.

EVANS, E.L., B.J. Meade (2013), Sparse imaging of postseismic afterslip following the Tohoku earthquake, Abstract G32B-08 presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec.

- EVANS, E.L., B.J. Meade (2013), Sparse imaging of postseismic afterslip following the Tohoku earthquake, Abstract 063 presented at 2013 Fall Meeting, SCEC, Palm Springs, Calif., 8-11 Sept.
- EVANS, E.L., B.J. Meade (2012), Total variation denoising of interseismic deformation in Western North America, Abstract G22B-08 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
- EVANS, E.L., B.J. Meade (2012), Total variation denoising of interseismic deformation in Southern California, Abstract 212 presented at 2012 Fall Meeting, SCEC, Palm Springs, Calif., 9-12 Sept.
- EVANS, E.L., J. P. Loveless, B. J. Meade (2011), Sharpened images of the 2011 Tohoku-Oki earthquake from sparsity based methods, Abstract G44A-03 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-10 Dec.
- EVANS, E.L., J.P. Loveless, B.J. Meade (2011), Sharpened views of the 2011 Tohoku-Oki earthquake from sparsity based optimization, Abstract A-043 presented at 2011 Fall Meeting, SCEC, Palm Springs, Calif., 11-14 Sept.
- B.J. Meade, E.L. EVANS, J.P. Loveless (2011), Minimal models of fault slip in complex fault systems, Abstract presented at 2011 Fall Meeting, SCEC, Palm Springs, Calif., 11-14 Sept.
- EVANS E.L., B.J. Meade, J.P. Loveless (2010), Interseismic interactions in geometrically complex fault systems: Implications for San Francisco Bay Area creep and tectonics, Abstract T33B-2239 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
- EVANS E.L., J.P. Loveless, B.J. Meade, R.Bürgmann (2009), Investigating fault coupling: Creep and microseismicity on the Hayward fault; *Eos Trans. AGU*, 90(54), Fall Meet. Suppl., Abstract G23B-0694
- EVANS E.L., R. Bürgmann, B.J. Meade, N. Houlie, J.P. Loveless, R. Nadeau, G. Funning (2008), Subsurface Creep and geometry of the Hayward-Calaveras Stepover, *Eos Trans. AGU*, 89(53), Fall Meet. Suppl., Abstract S11A-1717
- EVANS E.L., R. Bürgmann, R. Nadeau (2007), Linking faults: Subsurface creep on a contiguous fault structure connecting the Hayward and Calaveras faults; *Eos Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract S21A-0240

#### SYNERGISTIC ACTIVITIES

<b>Peer Review</b>	Bulletin of the Seismological Society of America, Journal of Geophysical Research, Seismological Research Letters
<b>Seminars</b>	Co-Chair of the USGS Earthquake Science Center seminar series, 2015
<b>Workshops</b>	USGS Geodetic Modeling for Seismic Hazard Workshop: 2016 (organizer) USGS Northern California Hazards Workshop: 2007, 2015, 2016 (invited talk) UNAVCO Strainmeter and Tiltmeter Course: 2015 CIG Crustal Deformation Modeling Workshop: 2010
<b>Professional Societies</b>	American Geophysical Union (AGU), since 2007 Southern California Earthquake Center (SCEC), since 2010 Seismological Society of America (SSA), since 2014