

MARK J. AGERTON

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POSITION

Assistant Professor, UC Davis, Department of Agricultural and Resource Economics July 2018–present
Nonresident Scholar, Center for Energy Studies June 2018–present
Baker Institute for Public Policy, Rice University

EDUCATION

Ph.D. in Economics, Rice University May 2018
DISSERTATION: *Anatomy of a North American Shale Boom: The Dynamics of Leasing, Drilling, and Learning*
M.A. in Economics, University of Illinois at Chicago May 2012
B.A. in Spanish, *magna cum laude*, Davidson College May 2006

PEER-REVIEWED PUBLICATIONS

“The Economics of Natural Gas Flaring and Methane Emissions in U.S. Shale: An Agenda for Research and Policy” (2023) *Review of Environmental Economics and Policy* 17(2), 251–273. <https://doi.org/10.1086/725004> (with Ben Gilbert and Gregory B. Upton Jr.)

“Financial Liabilities and Environmental Implications of Unplugged Wells for Gulf of Mexico and Coastal Waters.” (2023) *Nature Energy* 8, 536–547. <https://doi.org/10.1038/s41560-023-01248-1> (with Siddhartha Narra, Brian Snyder, and Gregory B. Upton Jr.)

“Decomposing Crude Price Differentials: Domestic Shipping Constraints or the Crude Oil Export Ban?” (2019) *The Energy Journal* 40(3), 155–172. <https://doi.org/10.5547/01956574.40.3.mage> (with Gregory B. Upton Jr.)

“Global LNG Pricing Terms and Revisions: An Empirical Analysis.” (2017) *The Energy Journal* 38(1), 133–165. <https://doi.org/10.5547/01956574.38.1.mage>

“Employment Impacts of Upstream Oil and Gas Investment in the United States.” (2017) *Energy Economics* 62, 171–180. <https://doi.org/10.1016/j.eneco.2016.12.012> (with Peter R. Hartley, Kenneth B Medlock III, and Ted Temzelides.)

WORKING PAPERS

Midstream Infrastructure and Environmental Externalities in Oil and Gas: Permian Basin Flaring and Methane Emissions. (With Wesley Blundell, Ben Gilbert, and Gregory B. Upton Jr.) <https://dx.doi.org/10.2139/ssrn.4890180>

Orphan well methane: Targeting unlocks abatement yet climate gains limited. (With Siddhartha Narra, Brian Snyder, and Gregory B. Upton Jr.) <https://dx.doi.org/10.2139/ssrn.5092728>

Learning Where to Drill: Drilling Decisions and Geological Quality in the Haynesville Shale. <http://dx.doi.org/10.2139/ssrn.3583149>. Revisions requested at *Journal of Political Economy*.

WORKS IN PROGRESS

When the Seller Can't Commit: Bidder Response and Revenue Implications. (With Diógenes Cruz and Eric Lewis.)

Ambient Pollution Mechanisms with Remote Sensing Technology: An Application to the Oil and Gas Industry. (With Ben Gilbert and Eric Lewis.)

Detection of Misreporting Using Machine Learning and Satellite Data: An Application to Flaring. (With Bulat Gafarov and Ben Gilbert.)

Extensive and Intensive Margin Supply Response and Environmental Consequences of Rotation Subsidies in Corn and Soy. (With James Keeler and Matthieu Stigler.)

PERMANENT WORKING PAPERS

Anatomy of a Shale Boom: Optimal Leasing and Drilling with Costly Search. [Link](#)

TEACHING

Instructor, University of California Davis, Department of Agricultural and Resource Economics

Dynamic Optimization (ARE 254, PhD) 2019–2021, 2024 (4x)

Economic Analysis of Resource and Environmental Policies (ARE 275, Master's) 2019–2024 (6x)

Operations Research & Management Science (ARE 155, Undergraduate) 2020, 2023 (2x)

Instructor, Rice University

Intermediate Microeconomics (ECON 201, Undergraduate) 2015 (1x)

ENERGY & PUBLIC POLICY ENGAGEMENT

National Academies Gulf Research Program

Invited presenter: Gulf Offshore Energy Safety (GOES) Board Apr 2024

Invited presenter: Gulf Futures Challenge (GFC) Committee Jan 2024

Planning Committee & Presenter: Meeting of Experts, Reducing Systemic Risk of Decommissioning of Oil & Gas Platforms in the Gulf of Mexico Sep 2023

Environmental Defense Fund

Invited presenter: Methane Policy Research Workshop Feb 2024
Ambient pollution mechanisms with remote sensing technology: An application to the oil and gas industry

Session chair, Economics Advisory Council Meeting May 2023

Invited presenter: Methane Workshop Nov 2021
The Economics of Flaring and Methane in U.S. Shale: An Agenda for Research and Policy

2nd Annual Orphan & Idle Wells Texas Conference Oct 2024

Speaker: *P&A costs, Methane Emissions, and the Value of Measurement for Policy: A Case Study on Louisiana Orphan Wells*

Outreach Publications

“California’s Quest for Cleaner Cattle: Science, Economics, and Policy.” With Sophia Salzer. *ARE Update* 28(1): 13–15. University of California Giannini Foundation of Agricultural Economics. (September 2024)

“Chips, Dip, and a Side of Deforestation? U.S. Agricultural Trade and Deforestation Policy Beyond Avocados.” With Julia Mezentseva and James E. Sayre. *ARE Update* 27(6): 5–8. University of California Giannini Foundation of Agricultural Economics. (July 2024)

“Considering Federal Program to Permanently Plug & Abandon Offshore Oil and Gas Wells.” *Columbia University Center on Global Energy Policy Report*, with Siddhartha Narra, Brian Snyder, and Gregory B. Upton Jr. (April 18, 2022)

“Integrating Technology and Incentives to Reduce Methane Emissions.” *Payne Institute Commentary Series*, with Ben Gilbert. (March 26, 2021)

Panelist for *Flaring in the Permian Basin: Outlook and Policy Responses*. Webinar, Rice University Baker Institute for Public Policy. (December 17, 2020)

“The Economics of Flaring in U.S. Shale.” *USAEE Podcast*, with Ben Gilbert and Greg Upton. (July 21, 2020)

“Pipeline Constraints, Not Export Ban, Caused Big Price Differentials” *Pipeline & Gas Journal* 246(8), 39–41, with Greg Upton (August 2019)

“OPEC Imposes ‘Swing Producer’ Role upon U.S. Shale: Evidence and Implications,” IAEE Energy Forum, Q3 2015, with Jim Krane

“The U.S. Shale Boom Takes a Break: Life as the World’s Swing Producer,” Foreign Affairs Online, with Jim Krane (May 26, 2015)

“Effects of Low Oil Prices on U.S. Shale Production: OPEC Calls the Tune and Shale Swings,” Baker Institute for Public Policy Research Paper, with Jim Krane (Feb 11, 2015)

PROFESSIONAL ACTIVITIES

Academic seminars

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| Environmental Defense Fund Seminar <i>The Economics of Natural Gas Venting, Flaring and Leaking in U.S. Shale: An Agenda for Research and Policy</i> | 2021 |
| Colorado School of Mines <i>Flaring of Associated Gas in West Texas’ Permian Basin: Descriptive Evidence and Policy Remedies</i> | 2020 |
| University of Wyoming <i>Learning Where to Drill: Drilling Decisions and Geological Quality in the Haynesville Shale</i> | 2020 |
| California State University, East Bay <i>Learning Where to Drill: Drilling Decisions and Geological Quality in the Haynesville Shale</i> | 2019 |
| World Bank <i>Learning Where to Drill: Drilling Decisions and Geological Quality in the Haynesville Shale</i> | 2018 |
| University of California Davis <i>Learning Where to Drill: Drilling Decisions and Geological Quality in the Haynesville Shale</i> | 2018 |
| Texas A&M Bush School <i>Learning Where to Drill: Drilling Decisions and Geological Quality in the Haynesville Shale</i> | 2018 |
| Louisiana State University Center for Energy Studies <i>Learning Where to Drill: Drilling Decisions and Geological Quality in the Haynesville Shale</i> | 2018 |
| Federal Reserve Bank of Dallas | 2016 |

Anatomy of a Shale Boom: A Dynamic Equilibrium Model of Mineral Leasing and Drilling Decisions
 International Monetary Fund 2014
Employment Impacts of Upstream Oil and Gas Investment in the United States

Organized sessions and workshops

Symposium, USAEE Annual Meeting 2023
 “Economics of Upstream Methane Emissions I & II”

Panel Session, ASSA/IAEE Annual Meeting
 “Decarbonizing the Global Economy: Economic Efficiency and Political Feasibility” 2022
 “Flaring and Methane Emissions in Oil and Gas” 2021

Workshop on Economic and Environmental Effects of Oil and Gas 2020
 Center for Energy Studies, Rice University, Houston, TX

American Economic Association ASSA Annual Meeting 2020
 “Private and Social Learning in Oil and Gas Extraction”

Workshop on upstream microdata workshop (with K. Medlock and DrillingInfo) 2016
 Center for Energy Studies, Rice University, Houston, TX

Referee for

Journal of the Association of Environmental and Resource Economics (JAERE) · *Journal of Environmental Economics and Management (JEEM)* · *The Energy Journal* · *American Journal of Agricultural Economics* · *Resource and Energy Economics* · *Resources Policy* · *Center for Growth and Opportunity* · *Macroeconomic Dynamics* · *Energy Policy* · *Economic Inquiry* · *Environmental Defense Fund*

United States Association for Energy Economics

Academic Affairs Committee 2020–22
 Judge: Young Professional Paper competition 2020,2021
 Abstract reviewer: 34th USAEE/IAEE North American Conference, IAEE at ASSA 2020, IAEE 2022
 Tokyo 2017–2019, 2022
 Poster competition judge: USAEE/IAEE North American Conference 2016–2018

Service to Department of Agricultural and Resource Economics, UC Davis

Job Market Committee 2023–present
 Co-organizer, Environmental and Energy Economics Seminar Series 2019, 2022–present
 Department Undergraduate Curriculum Committee 2020–present
 Departmental Representative, UC Davis Academic Senate Representative Assembly 2019–2020,
 2023–present
 IT Advisory Committee 2019–present
 AAEA best dissertation committee 2020, 2022, 2024
 Reviewer, Microeconomics Prelim 2021
 Nominating committee, Graduate Program Advising and Mentoring Award 2021

Conference presentations

AERE Annual Summer Conference, Washington, D.C. 2024
 38th USAEE/IAEE 2021 North American Virtual Conference, Online 2021

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| AERE Virtual Conference | 2021 |
| Workshop on Economic and Environmental Effects of Oil and Gas, Houston, TX | 2020 |
| American Economic Association, ASSA Annual Meeting, San Diego, CA | 2020 |
| 37th USAEE/IAEE North American Conference, Denver, CO | 2019 |
| AERE Annual Summer Conference, Tahoe, NV | 2019 |
| International Industrial Organization Conference, Boston, MA | 2019 |
| IAEE at ASSA, Atlanta, GA | 2019 |
| 36th USAEE/IAEE North American Conference, Washington, DC | 2018 |
| 35th USAEE/IAEE North American Conference, Houston, TX | 2017 |
| 10th International workshop on “Empirical Methods in Energy Economics,” Los Angeles, CA | 2017 |
| 39th IAEE International Conference, Bergen, Norway | 2016 |
| SPE/IAEE Hydrocarbon Economics and Evaluation Symposium, Houston, TX | 2016 |
| 5th IAEE Asian Conference, Perth, Australia | 2016 |
| 33rd USAEE/IAEE North American Conference, Pittsburgh, PA | 2015 |
| 85th Annual Conference of the Southern Economic Association, New Orleans, LA | 2015 |
| 38th IAEE International Conference, Antalya, Turkey | 2015 |
| 17th Annual IAEE/USAEE Session, Boston, MA | 2015 |
| 37th IAEE International Conference, New York City, NY | 2014 |

GRANTS AND CONTRACTS

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| P.I., <i>Remote Sensing for CA Livestock Methane Policy</i> | \$35,000 |
| Giannini Foundation of Agricultural Economics | July 2024–Sep 2025 |
| Co-P.I., <i>Estimating Future Oilfield Site Restoration Costs and Methane Emissions from Orphaned and Idle Wells in Louisiana</i> | \$3,200,000 (\$210,000 to UC Davis) |
| Louisiana Department of Natural Resources | April 2022–March 2027 |
| P.I., <i>Considering a Fed. Program to Permanently Plug and Abandon Offshore O&G Wells</i> | \$24,999 |
| Columbia University Center on Global Energy Policy | July 2021–June 2022 |
| P.I., <i>A New Method to Jointly Estimate Yield Response and Crop Choice</i> | \$30,000 |
| Giannini Foundation of Agricultural Economics | July 2020–June 2022 |
| P.I., <i>Learning Where to Drill in Unconventional Shales</i> | \$27,000 |
| Giannini Foundation of Agricultural Economics | July 2018–June 2019 |

MEDIA APPEARANCES

1. Quoted in *Gas Strategies*, “[Old flame: Can the US solve its flaring problem?](#)” (December 14, 2023). By Nicole Macdeo.
2. Quoted in *Gas Strategies*, “[US methane clampdown set to drive upstream M&A](#)” (December 14, 2023). By Nicole Macedo.
3. Interviewed on FOX 40 (video only). “[Attacks on Israel could cause a spike in crude oil prices](#)” (October 9, 2023). By Kristin Vartan.

4. Quoted in *Texas Monthly*, “Hundreds of Abandoned Oil Wells Are Rotting Away in Texas Bays” (September 2023). By Russell Gold.
5. Interviewed on KCBS Radio. (May 12, 2023). By Megan Goldsby.
6. Quoted in *The New York Times*, “Price to Plug Old Wells in Gulf of Mexico? \$30 Billion, Study Says.” (May 8, 2023). By Hiroko Tabuchi.
7. Quoted in *Bloomberg*, “The Gulf of Mexico Has a \$30 Billion Unplugged Oil Well Problem” (May 8, 2023). By Kendra Pierre-Louis.
8. Quoted by ABC News, “14,000 inactive oil and gas wells in US remain unplugged, posing risks for leaks, researchers say” (May 8, 2023). By Julia Jacobo.
9. Quoted by AFP, “US needs \$30bn to seal 14,000 unplugged offshore oil and gas wells: study” (May 8, 2023).
10. Interviewed on Capital Public Radio, “What’s going on with gas prices in California? Here’s why they are increasing again.” (September 29, 2022). By Steve Milne and Nicole Nixon.
11. Interviewed on ABC 10 Sacramento, “Why are gas prices so high in California? Newsom said it’s the oil companies, so we asked experts.” (October 4, 2022). By Morgan Rynor.
12. Interviewed on FOX 40 (video only). “California one cent away from breaking the average gas price record, according to AAA” (October 5, 2022). By Kristin Vartan.
13. Quoted by Forbes.com Advisor, “California Gas Prices Hit Record High, But Relief Is Near” (October 5, 2022). By Natalie Campisi.
14. Interviewed on ABC 7 San Francisco, “Why are gas prices high in California? Consumer group calls for windfall profit tax on oil companies” (October 18, 2022). By Michael Finney.
15. Headline interview on *Getting Answers*, ABC 7 San Francisco. (October 19, 2022). With Kristen Sze.
16. Interviewed on ABC 10 News Sacramento, “California Midterm Elections — If California turns red, could gas prices go down?” (October 25, 2022). By Monica Coleman.
17. Quoted by *San Francisco Chronicle* “Refinery outages contributed to California’s gas price spike. So why do we know so little about them?” (November 5, 2022). By Claire Hao.
18. Interviewed on CBS 13 Sacramento, “Puzzling prices at the pump have drivers pay less ahead of record breaking Thanksgiving” (November 17, 2022). By Marlee Ginter.
19. Interviewed on CBS 13 Sacramento, “Millions of people head home after Thanksgiving weekend, travel levels nearing pre-pandemic levels” (November 28, 2022). By Marlee Ginter.
20. Interviewed on KCBS Radio in San Francisco, “Newsom convening special session on soaring gas prices, oil company profits” (December 1, 2022). By Mike DeWald.
21. Quoted by Energy Intelligence, “US Set to Enact Narrow GHG Fee” by Emily Meredith (August 5, 2022)
22. Panelist on UC Davis LIVE podcast, “How War Impacts Energy and Fertilizer Supplies” (Apr 14, 2022)
23. Interviewed on CBS 13 Sacramento, “California Gas Tax Bill Reworked Into Tax On Suppliers” by Vlena Jones (March 29, 2022)
24. Interviewed on ABC 10 Sacramento, “Despite crude oil price crash, Sacramento area gasoline prices remain high” by Luke Cleary (March 15, 2022)
25. Interviewed on KCRA 3 Sacramento, “Average price of gas in Sacramento-area hits record high” by Lysée Mitri. (March 6, 2022)
26. Quoted by Energy Intelligence *Natural Gas Week*, “Oil Dynamics to Dictate Permian Flaring Despite Rising Gas Prices” (September 17, 2021)
27. Quoted by Energy Intelligence *Oil Daily*, “Crunch Time for US Domestic Climate Legislation” (September 13, 2021)

28. Quoted by Energy Intelligence *Natural Gas Week*, “‘Responsibly Sourced’ Gas Takes Leap With New US E&P Deal” (July 5, 2021)
29. Quoted by Energy Intelligence *Natural Gas Week*, “Dems’ Spending Plan Could Hit US Gas Upstream and Down” (July 19, 2021)
30. Quoted on American Public Media’s nationally broadcast *Marketplace Morning Report*, “‘Flaring’ is an environmental problem. What will stop oil companies from doing it?” (August 24, 2020).
31. Quoted in National Business Daily, “10年逾190宗破案，潮退去又迎低油价，美岩如何度危机？ [With more than 190 bankruptcies in 10 years, the enthusiasm has subsided and the impact of low oil prices has faded. How can the US shale industry survive the crisis?]” (July 14, 2020).
32. Quoted on Ohio Valley ReSource, WV Public Broadcasting, “Coronavirus And Slumping Prices Hit Ohio Valley’s Oil & Gas Sector” (March 19, 2020).
33. Quoted on American Public Media’s nationally broadcast *Marketplace Morning Report*, “Energy companies look to tech to make oil production easier and cheaper” (May 26, 2017).

OTHER

Eagle Scout

U.S. citizen

Conversationally fluent in Spanish

Prior professional experience in nonprofit fundraising