

Lauren Beatty

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Education

2023 (Expected) PhD, Agricultural and Resource Economics, **University of Maryland**
2016 BA, Math and Economics, **Macalester College**

Research

"A Dynamic Model of Oil and Gas Development with Flaring" (Job Market Paper)

Most oil wells co-produce natural gas. Producers can choose to burn this valuable co-product on-site (known as flaring) if the cost of connecting to the existing natural gas pipeline network is sufficiently high. While flaring is damaging to the climate, there exists surprisingly little research on the economics of flaring, and no research that studies the endogenous relationship between the pipeline network and the decision to connect. I construct and estimate a dynamic model of producer drilling and flaring decisions which depend on the current state of the pipeline network and expectations over its evolution. My model also allows producers to internalize spillover effects for their neighbors – any pipeline they build will extend the network and weakly decrease their neighbors' future connection costs. Using my model, I simulate pipeline development and flaring outcomes under counterfactual policies: a flaring tax, a flaring ban, and a gas subsidy. My counterfactual simulations show that flaring abatement costs are higher than previous studies but suggest that a flaring tax could substantially reduce flaring. A \$5/Mcf tax reduces flaring by 39%.

Fellowships and Awards

2021-2023 NBER Pre-Doctoral Fellowship in Energy Economics
2020 Bessie H. DeVault Award for Best Paper by a Third-Year Student
2018 Rhona Lantin Memorial Scholarship for Best Paper by a First-Year Student
2017-2022 University of Maryland Flagship Fellowship
2016 Phi Beta Kappa
2016 3M Scholar Award
2015 John M. Dozier Prize in Economics

Work Experience

Graduate Research Assistant for James Archsmith	Aug. 2022 - Present
Graduate Research Assistant for Louis Preonas	Aug. 2019 - Aug. 2021
Graduate Teaching Assistant for AREC 610 (Applied Microeconomics)	Jan. 2019-May 2019
Graduate Teaching Assistant for AREC 623 (Econometrics I)	Sep. 2018-Jan. 2019
Graduate Research Assistant for Anna Alberini	Jan. 2018-Sep. 2018
Graduate Research Assistant for Robertson Williams III	Sep. 2017-Dec. 2017
Abstract Algebra Preceptor	Jan. 2016 - Jun. 2016
Multivariable Calculus Preceptor	Sep. 2014 - Dec. 2014
Discrete Mathematics Preceptor	Sep. 2013 - Jun. 2014

References

Josh Linn: linn@umd.edu
Rob Williams: roberton@umd.edu
Louis Preonas: lpreonas@umd.edu
James Archsmith: archsmit@umd.edu

Skills

R, SQL, Git, Stata, \LaTeX