

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)

Routine flaring is often claimed to be a problem of lack of pipeline development. However, little economic research has been done on whether this is true or whether this outcome is inefficient. Pipeline networks grow over time, reducing operator costs of connecting to pipelines. Pipelines also grow endogenously – more pipelines are built when producers choose to connect their wells. I construct and estimate a dynamic model of producer drilling and flaring decisions which are affected by the current state of the pipeline network and expectations over its evolution. My model also accounts for the fact that producers may internalize spillover effects for their neighbors – that by connecting to a pipeline, their neighbors will become closer, reducing their costs. My model estimates imply that producers do not consider spillovers to their neighbors and that the connection costs of building pipelines is higher than numbers used in previous studies. I then use simulation to explore how potential policies such as a flaring tax, flaring ban, or gas subsidy might affect pipeline development and flaring outcomes. My counterfactual simulations show that abatement costs are higher than previous studies but suggest that a sensibly calibrated flaring tax could substantially reduce flaring. A \$5/Mcf tax reduces observed flaring by 39% while a 3\$/Mcf tax reduces flaring by 29%.

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