

# KOLE REDDIG

## Contact Information

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Tepper School of Business  
Carnegie Mellon University  
4765 Forbes Avenue  
Pittsburgh, PA 15213

kreddig@cmu.edu  
<http://sites.google.com/site/kolereddig>

+1 (717) 951-3258  
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## Education

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Tepper School of Business, Carnegie Mellon University	Pittsburgh, PA
Ph.D. Economics (Minor in Marketing)	2020 (expected)

Tepper School of Business, Carnegie Mellon University	Pittsburgh, PA
M.S. Economics	2017

George Mason University	Fairfax, VA
B.S. Economics and Mathematics	2014
<i>summa cum laude</i> , Honors in Mathematics	

## Fields of Interest

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Health Economics, Industrial Organization, and Applied Microeconomics.

## References

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Prof. Martin Gaynor (co-chair)  
H. John Heinz III College  
Carnegie Mellon University  
(412) 268-7933  
mgaynor@cmu.edu

Prof. Maryam Saeedi (co-chair)  
Tepper School of Business  
Carnegie Mellon University  
(412) 268-8832  
msaeedi@andrew.cmu.edu

Prof. Rebecca Lessem  
Tepper School of Business  
Carnegie Mellon University  
(412) 268-6903  
rlessem@andrew.cmu.edu

## Job Market Paper

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“Designing Contracts for Multitasking Groups: A Structural Model of Accountable Care Organizations.” ([Link](#))

*Abstract:* Contract and incentive design is used by firms, policymakers, and many others to encourage desired behavior in a variety of settings. In this paper, I estimate a structural model to design contracts for an incentive program where agents face a tradeoff between multiple tasks, free-ride on each other, and have the option to drop out if payment is not sufficiently generous. The setting, which involves 11 million people and \$100 billion in healthcare expenditure each year, is Medicare’s Accountable Care Organizations (ACOs). ACOs are groups of healthcare providers that receive incentive pay from Medicare for spending below a cost target on shared patients. In order to find the contracts between Medicare and ACOs that maximize the money saved by the incentive program while accounting for free-riding, the tradeoff between reducing expenditure and quality of care, and voluntary participation, I build and estimate a two-stage structural model of ACOs. Healthcare providers first choose which, if any, ACO to join based on the income they expect to earn. Next, given participation in an ACO, providers strategically choose effort to put towards quality of care and reducing expenditure in order to maximize their own payoff. The model is estimated with public ACO-level performance and participation data. I find that free-riding within ACOs and the tradeoff between decreasing expenditure and improving quality has a large impact on the contract Medicare should implement to maximize the monetary savings of the incentive program. Counterfactual analysis shows existing contracts between Medicare and ACOs are too generous, and when the savings-maximizing contract is used, Medicare saves \$100 million more per year. If Medicare also imposes financial penalties on ACOs that spend too much, cost-savings increases by \$730 million per year, without a significant change in participation, though ACO quality of care decreases by two standard deviations. The final counterfactual shows free-riding within ACOs decreases program savings by \$1 billion per year.

## Other Working Papers

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“Spillovers between Medicare and Medicaid: Evidence from the Supply-Side and Payment Parity.”

## Teaching Experience

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### *Instructor*

Regression Analysis (Undergraduate), Summer 2017

Overall teaching evaluation: 4.7/5.0 (100% of students responding)

### *Teaching Assistant* (\* denotes recitation leader)

Regression Analysis (Undergraduate), Spring 2016\*, Fall 2016\*, Fall 2017\*, Fall 2018\*, Fall 2019\*

Statistical Decision Making (MBA), Spring 2017\*, Spring 2018, Spring 2019

Economic Principles of Policy Analysis (Masters), Spring 2018\*

Microeconomics I (Ph.D.), Fall 2015\*, Fall 2016\*

Microeconomics II (Ph.D.), Fall 2015\*

## Conference Presentations

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*2019:* ASHEcon (Washington D.C.), IIOC Rising Stars Session (Boston), H2D2 Research Day (University of Michigan)

*2018:* Southeastern Health Economics Study Group Conference (Atlanta)

## Other Experience

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Research Assistant for Prof. Rebecca Lessem, Spring 2019

Research Assistant for Prof. Karam Kang, Spring 2016, Spring 2017

## Selected Awards and Honors

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William Larimer Mellon Fellowship	2014-2018
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Tepper School of Business, Carnegie Mellon University

Phi Beta Kappa	2014
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George Mason University

First Place, Physical Sciences Undergraduate Research Colloquium	2014
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College of Science, George Mason University

Outstanding Academic Achievement Award	2014
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Department of Economics, George Mason University

## Other

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*Computer Skills:* Matlab, Stata, Python, R, Eviews, SAS, L<sup>A</sup>T<sub>E</sub>X, Microsoft Office

*Citizenship:* United States