## Marisa Carlos

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### Education

Ph.D., Policy Analysis and Management, Cornell University (Expected 2019)
M.S., Policy Analysis and Management, Cornell University 2017
B.S.B.A., Business Economics (magna cum laude), University of Arizona 2012

#### Personal

United States Citizen

### Research Interests

supply-side health economics: health insurance, safety-net providers, hospitals, pharmaceutical marketing

## Research Experience

Graduate Research Assistant, Professor Sean Nicholson, Cornell University	2015; 2018
Research Transparency Intern, J-PAL Global	2018
Graduate Research Assistant, Professor Samuel Kleiner, Cornell University	2015 - 2017
Undergraduate Research Assistant, Professor Tracy Regan, University of Arizona	2012
Undergraduate Research Assistant, Professor Price Fishback, University of Arizona	2011 - 2012

## Work in Progress

# The Effects of Prescription Drug Coupons on Generic Drug Use, Adherence, and Competition: Evidence from Three Drug Classes (Job Market Paper)

Prescription drug coupons—offers from pharmaceutical companies to pay a portion of a patient's out-of-pocket prescription cost—are the subject of a current and growing debate. Insurance companies and governments are concerned that coupons increase costs without improving health by shifting patients away from generic drugs and towards costly, brand-name drugs. Pharmaceutical companies allege that coupons improve medication adherence, thus improving heath and lowering overall healthcare spending. While the debate has continued, coupon use has increased to 18% of prescription claims in 2017 (IQVIA, 2018). I use insurance claims from 2007 to 2016 from a large, national insurer to estimate the effect of coupons on generic drug use, medication adherence, and brand-tobrand competition for drugs in three drug classes: statins, antipsychotics, and acne treatments. I take advantage of a law in Massachusetts which barred residents from using coupons, which was amended in 2012 to allow coupons only for drugs without a generic equivalent, to estimate difference-in-differences and triple-difference models. I find that coupons decrease generic drug use by shifting patients towards brand-name drugs and away from generic equivalents. I estimate a 1.9 percentage point (2%) decrease in generic drug use and a 2.9 percentage point (35%) increase in the use of "dispense as written" orders. I find no evidence that coupons shift patients away from older, generic drugs and towards newer, brand-name drugs. Additionally, I do not find evidence that coupons affect medication adherence or brand-to-brand competition. A back of the envelope calculation suggests that coupons increase insurer spending by \$28 million in my sample alone. These results are consistent with prescription drug coupons increasing costs without improving health.

#### Hospital Ownership and Admission Through the Emergency Department

Using the universe of ER discharge records for multiple states and years, I determine whether hospital ownership affects hospital admission rates for patients who show up in the emergency room. I use within-hospital variation from ownership conversions to estimate hospital fixed-effects regressions and event studies. The results indicate

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that conversion to for-profit from nonprofit or government ownership results in a 2-3 percentage point increase in admission rates, with the effects concentrated to Medicare and Medicaid patients. These results are consistent with whistleblower lawsuits which allege that for-profit hospitals admit patients through the ED when it is not medically necessary.

# Non-Monetary Obstacles to Medical Care: Evidence from Postpartum Contraceptives (with Barton Willage)

In this paper we use variation in state-level policies to test whether non-monetary costs are meaningful obstacles to health care. Starting in 2012, most state Medicaid agencies made long-acting reversible contraceptives (LARCs, which include IUDs and implants) available in the hospital immediately following delivery of a child, eliminating the time-cost and stress usually associated with getting a LARC. Policymakers and advocates stress that providing access to immediate postpartum LARCs can reduce unintended and short-interval pregnancies, which are associated with adverse neonatal outcomes. We test whether lowering non-monetary costs increases LARC use, decreases birth rates, and improves birth outcomes. We use data from the National Vital Statistics System and quarterly Medicaid claims for LARCs to estimate event studies and difference-in-differences models. We find no evidence that Medicaid coverage for inpatient post-partum LARCs affected LARC use or birth outcomes.

Hospital Amenities and Patient Demand: Evidence from Maternity Care (with Samuel Kleiner)

## Fellowships & Grants

Mathematica Summer Fellowship, Washington D.C.

Morgan Teaching Assistantship, Cornell University

2015 - 2016

SUNY Graduate Diversity Fellowship, Cornell University

Wimberley-Johnson Scholarship, University of Arizona

Wildcat Excellence Scholarship, University of Arizona

2017 - 2011

## Conference & Seminar Presentations

2018	Institute on Health Economics, Health Behaviors & Disparities, Cornell University
	Association for Public Policy Analysis & Management
	Mathematica Policy Research
2017	International Health Economics Association World Congress
	Association for Public Policy Analysis & Management Student Conference (poster)
	Eastern Economic Association Conference (discussant)
2016	American Society of Health Economists (poster)

## Teaching Experience

#### Cornell University

Teaching Assistant, PAM 4370: Economics of Health Care Markets, Prof. Samuel Kleiner	2015
Teaching Assistant, PAM 2000: Intermediate Microeconomics, Prof. Samuel Kleiner	2015
(4.67/5.00; 1=poor, 5=excellent; evaluations available upon reques	st)
Teaching Assistant, PAM 2350: The U.S. Health Care System, Prof. Sean Nicholson	2014

#### University of Arizona

Undergraduate Teaching Assistant, Econ 150: An Economic Perspective (Prof. Tracy Regan) 2011

#### Academic Service

Volunteer Tutor, Columbus Metropolitan Library	2017 - Present
President, Graduate Students in PAM, Cornell University	2015 - 2016
PIER Seminar Coordinator, Graduate Students in PAM, Cornell University	2015 - 2016
Graduate School Orientation Leader, Cornell University	2014

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## Professional Activities & Affiliations

Institute for Health Economics, Health Behaviors and Disparities, Cornell University American Society of Health Economists
Eastern Economic Association
Association for Public Policy Analysis & Management

## Software Skills

STATA, SAS, Python, Git/GitHub, SQL, Linux/Unix, Excel, LATEX

## References

Sean Nicholson, PhD

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