

**ANDREW JOHN ARNOLD**

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**UNIVERSITY OF PENNSYLVANIA**

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Placement Director: Holger Sieg	HOLGERS@ECON.UPENN.EDU	215-898-7194
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**Office Contact Information**

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**Personal Information:**

Date of birth: July 31<sup>st</sup>, 1994  
Citizenship: U.S.

**Undergraduate Studies:**

B.S. in Mathematics, *Summa cum laude*, University of Alabama at Birmingham, 2017  
B.S. in Mathematical Economics and Econometrics, *Summa cum laude*, University of Alabama at  
Birmingham, 2017

**Master Level Work:**

M.S. in Mathematics, University of Alabama at Birmingham, 2017

**Graduate Studies:**

University of Pennsylvania, 2017 to present  
Thesis Title: “*Essays in Empirical Microeconomics*”  
Expected Completion Date: May 2023

**Thesis Committee and References:**

Professor Holger Sieg (Advisor)  
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**Research Fields:** Empirical Industrial Organization, Political Economy, Public Economics

**Teaching Experience:**

Fall, 2022	Urban Fiscal Policy, Teaching Assistant for Professor Holger Sieg
Spring, 2022	Market Design, Teaching Assistant for Professor Rakesh Vohra
Fall, 2021	Introduction to Microeconomics, Course Instructor
Spring, 2021	Public Finance, Teaching Assistant for Professor Margaux Luflade
Fall, 2020	Urban Fiscal Policy, Teaching Assistant for Professor Holger Sieg
Fall, 2018 – Spring, 2020	Introduction to Microeconomics, Teaching Assistant for Professor Anne Duchene

**Research Papers:**

*“Estimating a Dynamic Game of Political Advertising”* (Job Market Paper)

Abstract: This paper studies the effect of political advertising on the outcomes of competitive elections to the U.S. Senate between 2000 and 2018. Using time-stamped data on candidates' ad spending and content, I provide descriptive empirical evidence that candidates' advertising choices are driven by their own ideologies and political experience, as well as by their opponent's advertising and their standings in the polls. To gain further insights, I develop and estimate a dynamic game of political advertising with endogenous ad content, namely whether an ad is positive or negative. Parameter estimates show that incumbents have a substantial fundraising advantage over challengers. Positive advertising that similarly benefits challengers and incumbents reinforces this incumbency advantage, while negative advertising that disproportionately benefits challengers works against it. A counterfactual public campaign financing policy that eliminates incumbents' fundraising advantages decreases the incumbent reelection rate by 3.6 percentage points. Hypothetical temporary bans on negative advertising increase the incumbent reelection rate, but decrease ideological extremism among the challengers who replace them.

*“Estimating the Benefits of Policy Decentralization”*, with Holger Sieg

Abstract: The objective of this paper is to develop and implement a new framework for estimating the benefits of policy decentralization. To accomplish this task, we consider a probabilistic voting model. We show how to identify and estimate this model using a combination of roll call data from state legislators and local votes in policy referenda. We study the most famous natural experiment ever conducted with respect to policy decentralization in the U.S., namely the decentralization of liquor policies at the end of the Prohibition Era. Compared to the Prohibition Era status quo, we find that aggregate welfare increases by 1 percent under the optimal uniform centralized policy. Decentralized policies offer opportunities to account for heterogeneity in preferences and increase welfare even further. Compared to the optimal uniform centralized policy, the optimal decentralized policy increases aggregate welfare by 36 percent.

**Research Papers in Progress:**

*“Strategic Product Positioning: Evidence from Political Advertising”*, with Lucie L’Heudé

**Computational Skills:** C, C++, CUDA, Python, R, SQL