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#### **Prior Academic Studies**:

Juris Doctor, Law, Notre Dame Law School, *Cum laude*, 2004 Bachelor of Arts, Philosophy, University of Notre Dame, *Cum laude*, 2000 Bachelor of Science, Mechanical Engineering, University of Notre Dame, *Cum laude*, 2000

#### Graduate Studies:

<u>Ph.D., Economics</u> <u>Thesis Title</u>: "Are Software Patents Different? Evidence from the Empirical Analysis of Litigation" <u>Graduation</u>: December, 2012

#### References:

Alex Tabarrok (Chair) George Mason Economics, Fairfax, VA 22030 703-993-2314, tabarrok@gmu.edu Thomas Rustici George Mason Economics, Fairfax, VA 22030 703-993-1137, trustici@gmu.edu

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#### **Teaching and Research Fields**:

Primary fields: Law and Economics, Industrial Organization Secondary fields: Public Economics

### **Teaching Experience:**

Spring, 2013	Adjunct Professor, Law and Economics, University of San Diego
Spring, 2011	Assistant, Microeconomics (principles), George Mason University
Spring, 2011	Assistant, Macroeconomics (principles), George Mason University
Spring, 2011	Assistant, Economic Problems & Policy, George Mason University
Spring, 2011	Assistant, Topics in Economic History, George Mason University
Fall, 2010	Assistant, Microeconomics (principles), George Mason University
Fall, 2010	Assistant, Economic Problems & Policy, George Mason University

#### Select Legal Employment:

2007 to 2008	Coughlin, Stoia, Geller, Rudman & Robbins LLP, San Diego, CA
	Contract associate practicing antitrust litigation
2006 to 2007	Marks, Golia & Finch LLP, San Diego, CA
	Associate practicing civil litigation for construction industry clients
2005 to 2006	Wildman, Harrold, Allen & Dixon, Chicago, IL
	Associate practicing intellectual property and products liability litigation

# Honors, Scholarships, and Fellowships:

2008 to 2010 George Mason Department of Economics Fellow

# **Research Papers:**

# "Do 'Fuzzy' Software Patent Boundaries Explain High Claim Construction Reversal Rates?" Job Market Paper

Bessen and Meurer (2008) theorize that the patent litigation surge of the 1990s was caused by a breakdown in notice of patent boundaries. They argue a key source of this was the proliferation of software patents with particularly uncertain scope. In this paper I seek evidence for their argument by extending the literature on claim construction reversal rates to determine whether the Federal Circuit has been more likely to find error in district court construction of software patents. Not only do I find that it has, but over the last decade software patents account for over one third the difference between the Federal Circuit's claim construction reversal rate and its reversal rate on all other patent issues. These results are cause for optimism in that, in general, the application of claim construction law is more predictable that has been feared. However, this optimism does not extend to software claim construction, which consistent with Bessen and Meurer's (2008) argument, is highly unpredictable.

#### "Repeat Patent Plaintiffs and Patent Quality: A (Partial) Defense of the Most Litigated Patents" Stanford Technology Law Review (forthcoming winter 2013)

While repeat patent plaintiffs are responsible for a disproportionate share of litigation costs, economic theory predicts their patents will be higher quality such that they offset the costs they generate by winning more disputes. Allison, Lemley & Walker (2011), however, find the owners of the most litigated patents overwhelmingly lose in court, suggesting that repeat patent plaintiffs tend to burden innovation by irrationally litigating weak patents through trial. By contrast, in this paper I find that owners who assert their patents in more lawsuits generally win more judgments. This result supports an optimistic view of the impact of repeat patent plaintiffs. However, this optimism does not extend to repeat software patent plaintiffs, who are not more likely to win infringement judgments. This fact is not inconsistent with rational software patent owner behavior but is best explained by Bessen and Meurer's (2008) theory that software patents possess more uncertain boundaries.

# "Where's the Innovation? An Analysis of Anticipated and Obvious Patents"

#### Virginia Journal of Law and Technology (forthcoming summer 2013)

While more innovation is the main theoretical benefit of patent protection, some assert a swamped USPTO has granted an inefficiently large number of patents with negligible innovation value. I test this argument's plausibility and determine the characteristics of patents without innovation by analyzing 980 litigated patents subject to anticipation or obviousness decisions since 2000. Using a selection corrected probit model, I obtain unconditional estimates of the likelihood patents with given characteristics lack innovation value. I estimate a surprising 28 percent of all patents would be found at least partially invalid if litigated. Software, business method and licensing firm-owned patents possess significantly higher innovation-based invalidity rates.

# "Patent 'Trolls': Rent-Seeking Parasites or Innovation-Facilitating Middlemen?"

Non-practicing entities (NPEs), a.k.a. patent "trolls", have been disparaged as wasteful rent-seekers who assert patents that are credible as litigation weapons but weak in innovative value. Others, however, view NPEs as beneficial middlemen between capital-constrained inventors and technology producers. In this paper I analyze the characteristics of NPE-litigated patents and NPE litigation opponents. I find evidence that supports both the negative and positive view of NPEs: NPEs do litigate broader patents in complex technologies consistent with the hold-up theory of NPE patent litigation. However, consistent with the view that they are beneficial middlemen, NPEs are more likely than practicing firms to assert patents originally obtained by individuals or foreign inventors.