## Abstracts of Selected Working Papers or Work in Progress

#### "Patent Validity, Settlements and Litigation," 2016, with Jesse Kalinowski.

Patent litigation can be very costly for firms, and most cases end in a settlement. A common defense for an alleged infringer is to challenge the patent's validity. We model patent disputes while accounting for the timing of settlement and for the alleged infringer's efforts to invalidate the patent. Late settlements occur after an alleged infringer was successful in identifying evidence that challenges patent validity. This calls into question the court's ability to correct mistakes in patent examination. We analyze the effects of fee shifting on the outcomes of litigation and examine how patent assertion entities differ from practicing entities.

#### "Patent Reexamination," 2016, with Brendan Costello

Patent litigation is notoriously expensive and drawn out. In 1999, the American Inventors Protection Act created an administrative proceeding that could be used by third parties to adjudicate patent validity - inter partes reexamination (IPX). Reexamination has grown in importance since the America Invents Act, which in 2012 replaced IPX with a new procedure - inter partes review. We empirically study patent reexamination. First, we compare the characteristics of litigated patents that were reexamined to those that were not. Second, we examine the effects of the policy change on the characteristics of reexamined patents and on the outcome of reexamination.

#### Patent Term and Entry, 2016, with Oskar Liivak.

We investigate the relationship between patent term, entry and the degree of product differentiation in a market with an incumbent patentee and a subsequent entrant. The entrant benefits from the incumbent's patent protection, as it prevents free entry into the market. We show that the incumbent patentee's profit is not monotone in patent term because a longer patent term induces or expedites entry. Moreover, an entrant will choose a less differentiated product the closer time is to the incumbent's patent expiration. This results in a positive effect on incumbent's profit in the case of horizontal differentiation, but a negative effect in the case of vertical differentiation.

# "Leniency and Loyalty in the Choice of Certifiers: Evidence from the BRC Food Safety Standard," 2016, with Yuqing Zheng.

Standards play a vital role in promoting food safety. Certification bodies audit manufacturing sites to certify them for a standard. Using data from the British Retail Consortium global standards program, we offer a glimpse at the market for and examine manufacturers' choices of certification bodies. Manufacturers prefer geographically close certifiers and those that assigned a higher share of A grades in the previous year. This behavior provides an incentive for lenient grading. We also find a strong tendency of manufacturers to return to the same certification body that audited their site in the previous year.

### "Online Posting of Teaching Evaluations," 2015, with Vrinda Kadiyali and Asaf Zussman.

This paper shows that a 2008 decision at Cornell University's College of Agriculture and Life Sciences to publish mean student evaluations of teaching online led to an improvement in evaluations but also to an increase in student grades. While the stated goal of the policy was to provide useful information to students, it had little effect on course enrollment and composition. To identify the effects of the policy change, we rely on 2003-2011 data from this college and on a "treatment intensity" design, exploiting the differential response of instructors with different initial evaluation ratings.