

# **Patents & Innovation: What is the economic evidence?**



James Bessen  
(Boston University School of Law and  
Research on Innovation)

# 1. Cross-country evidence



- Stronger patent rights  
<=> R&D, economic growth

# 1. Cross-country evidence



- Stronger patent rights  
<=> R&D, economic growth
- **BUT**, which causes which?

# 1. Cross-country evidence



- Stronger patent rights  
<=> R&D, economic growth
- **BUT**, which causes which?
  - Patent strength *lags* R&D
  - Patent rights do not aid low-R&D nations

## 2. Historical evidence



- Patents did NOT increase innovation
  - industry differences

## 2. Historical evidence



- Patents did NOT increase innovation
  - industry differences
- Strengthening patents did NOT increase domestic innovation
  - slight decrease
  - increased foreign patenting

# 3. Survey evidence



- Do patents protect profits from innovation?
  - Yes, in pharma, chemicals
  - NO in computers, electronics, most others

# 3. Survey evidence



- Do patents protect profits from innovation?
  - Yes, in pharma, chemicals
  - NO in computers, electronics, most others
  
- MORE IMPORTANT:
  - Lead time advantage
  - Complementary hardware & services

# 4. Econometric evidence



- What is the private value of patents?

# 4. Econometric evidence



- What is the private value of patents?
- ~15% of R&D
  - Patents *do* have value
  - But MOST R&D is protected other ways

# Summary



- Patents DO aid innovation overall

# Summary



- Patents DO aid innovation overall
- But *LIMITED*
  - certain industries
  - 85% other protection

# Implication



- Patent policy affects patent value

# Implication



- Patent policy affects patent value
- AND the other 85% of innovation
  - Balance!

# Puzzle:



- Industries that do not value patents
  - computers, electronics, semiconductors
- nevertheless acquire many

# Why?



- To block competitors
- As bargaining chip
- “Strategic” patenting not to protect innovation *per se*

# Patent Policy => Patent Thickets



- More attractive patents => “arms race”
- Other protection
  - weaker or not an option
- Leads to...
  - litigation
  - Innovation “tax”

# Litigation Explosion

