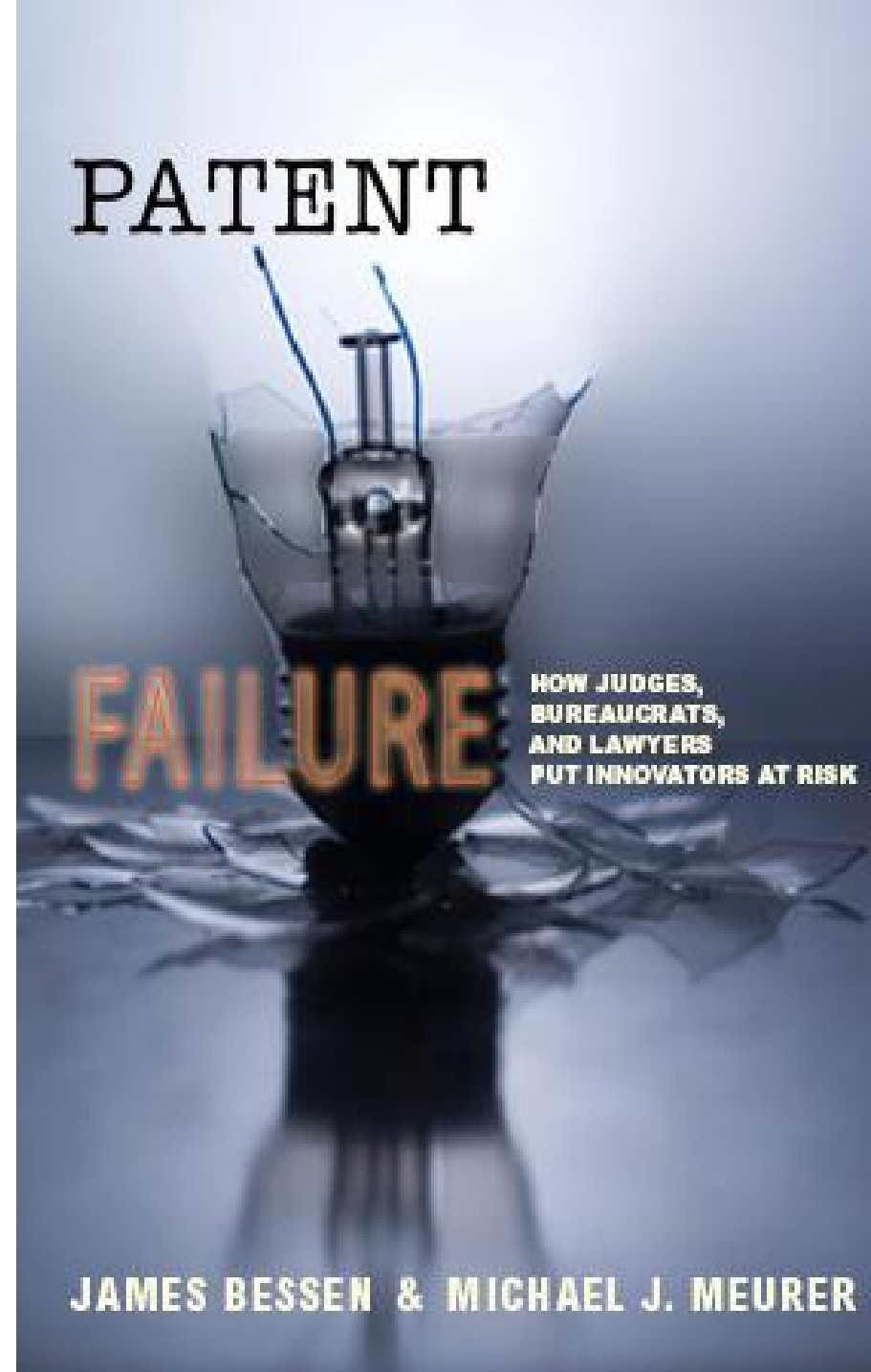


Entrepreneurs and the Case for Improved Patent Notice

Chapter 8





My royalties go to the
college savings fund
for Quinn and Zach



1. Explosion of Patent Litigation
2. Mainly caused by Poor and Deteriorating Notice
3. Most Defendants are R&D Intensive
4. Innovation Success Exposes them to Patent Assertions
5. Poor Notice Hinders Ex Ante Avoidance or Licensing
6. Defense costs exceed rents from OWN patents
7. Publicly Traded U.S. Firms Outside of Chem/Pharma would be BETTER OFF if Patents Abolished

The Case Against Notice Improving Reform

- Revolutionary innovations originate with small inventors/firms
- Patents are crucial to small guys
- Patent notice reform hurts small guys
 - Reduce patent value
 - Increase prosecution cost
 - Small guys don't get sued as infringers

Michael Goldberg

The Case Against Notice Improving Reform

- Revolutionary innovations originate with small inventors/firms
- Patents are crucial to small guys
- Patent notice reform hurts small guys
 - Reduce patent value (sometimes)
 - Increase prosecution cost (sometimes)
 - Small guys don't get sued as infringers (Sean Pak)

Rebuttal

- Public firms perform lion's share of R&D
- Importance of small inventors and small firms to innovation *exaggerated*
- Importance of patents to small firms *exaggerated*
- Reform that helps big guys will help small guys

Small Firms and R&D

- Lerner (1999) surveyed the literature on firm size and R&D and concluded, “Small businesses, in aggregate, do not appear to be particularly research-intensive or innovative.”

Leading inventors (by patent grant)

- Donald Weder 1,336
- Thomas Edison 1,093
- Jerome Lemelson appx 600

Fields of Independent Inventors

Rank	Technology	Description
	Class	
1	52	Static Structures (e.g., buildings)
2	473	Games Using Tangible Projectile
3	606	Surgery (surgical instruments)
4	280	Land Vehicles
5	2	Apparel

Patent mechanical inventions and medical devices,
few patents on most other types of inventions
(Allison & Lemley)

Source of Important Inventions

- National Inventors Hall of Fame
- Through 2002: 39 inventors inducted for inventions patented after 1970; only 23% were independent inventors or inventors working for small comps. 59% big firms; 18% univ and hospitals

Are Patents Critical?

- 877 venture-financed sw start-ups, only 24% had obtained any patents at all within 5 years of receiving financing (Mann and Sager 2005) (biotech 56% of 212)
- 16% sw start-ups any funding source have patents (Cockburn and MacGarvie)
- 50% of 3,047 new public R&D performing firms have applications pending (later granted) when go public (Bessen and Meurer) Only 21% in SIC 73 (bus. serv. incl. sw)

Table 8.1 Patent Value, by Size

	Median Value (\$U.S, 1992)	Mean Value (\$U.S, 1992)	Standard Deviation
Small Entities	2,943	70,100	1.93
Large Entities	14,310	105,916	1.88
U.S. Individual	2,589	25,598	1.79
U.S. Organization	14,812	115,846	1.90
Small Entities*	7,204	84,024	1.79
Large Entities*	40,482	133,130	1.95

Sale of Patents/Technology

- Patent reform that aids big guys will increase purchase price
- Big guys want technology more than patents from small guys
 - Patents on complex technologies do not shelter purchaser from threat by other patent owners
 - Reduced patent tax should increase demand for technology and help small sellers

David and Goliath?

- Christensen: “Perhaps the most powerful protection that small entrant firms enjoy as they build the emerging markets for disruptive technologies is that they are doing something that it simply does not make sense for the established leaders to do”
- Goliath gets the sling: Vonage
- David vs. David (or Cain and Abel) RIM v. NTP