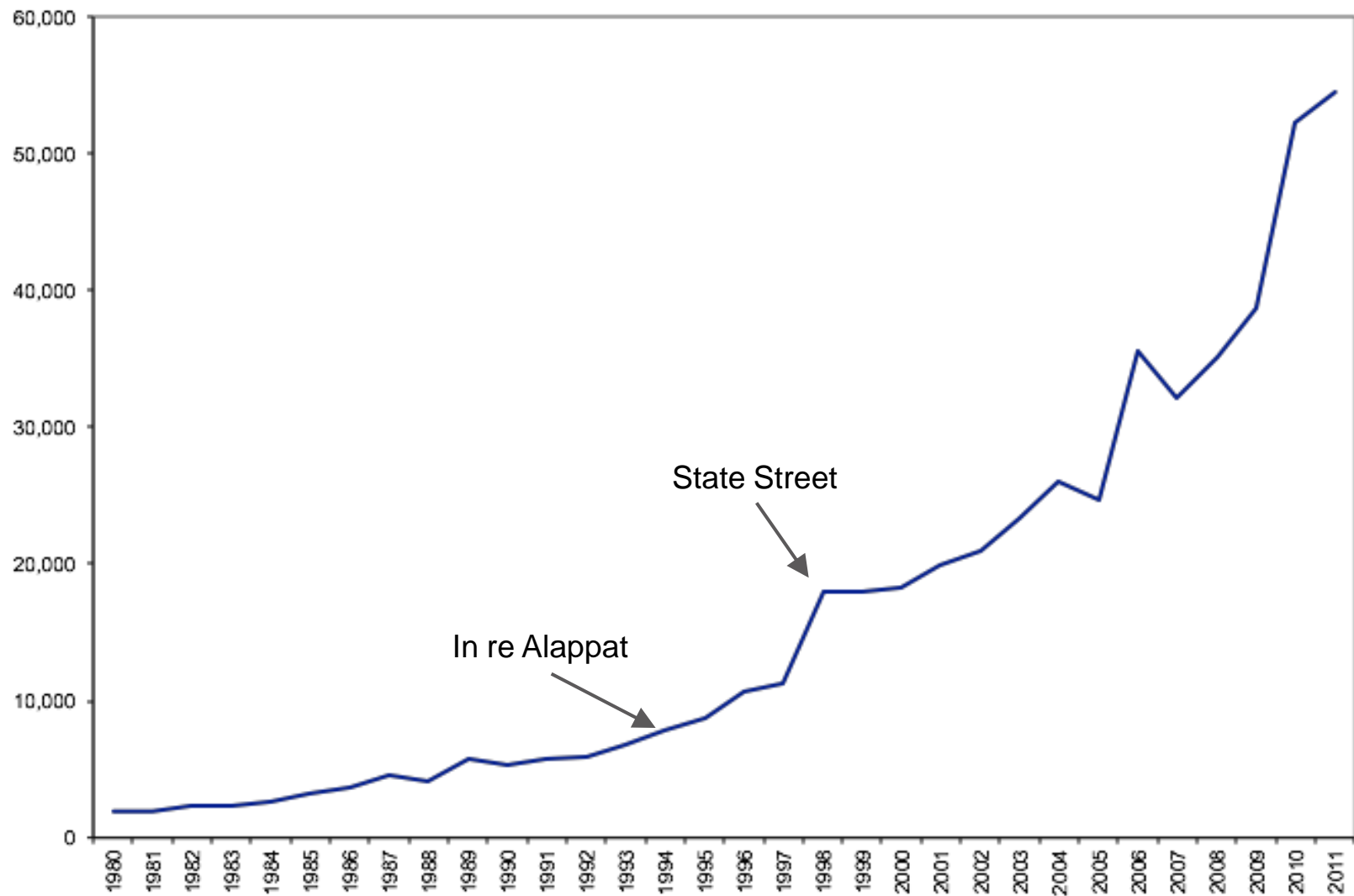

Economic impact of Patent Assertion Entities

James Bessen

From SW patents to Patent Trolls



SW patents granted

**Why introduce patents
to a highly
innovative industry ?**

Disconnect

Most SW innovators
don't want
patents

Disconnect

- SW developers don't want SW patents
- Silicon Valley firms v employees

SANTA CLARA LAW

HIGH TECH
LAW INSTITUTE



Solutions to the Software Patent Problem

November 16, 2012

Disconnect

Most SW innovators
don't want
patents

Why?

Small benefit

Substantial cost

Most SW firms don't patent

	Share with any patents
Public SW firms	33%
startups (newly listed)	12%
All SW startups	24%
venture backed	24%, 33%, 67%
Top 10 SW firms, share of industry patents	81%

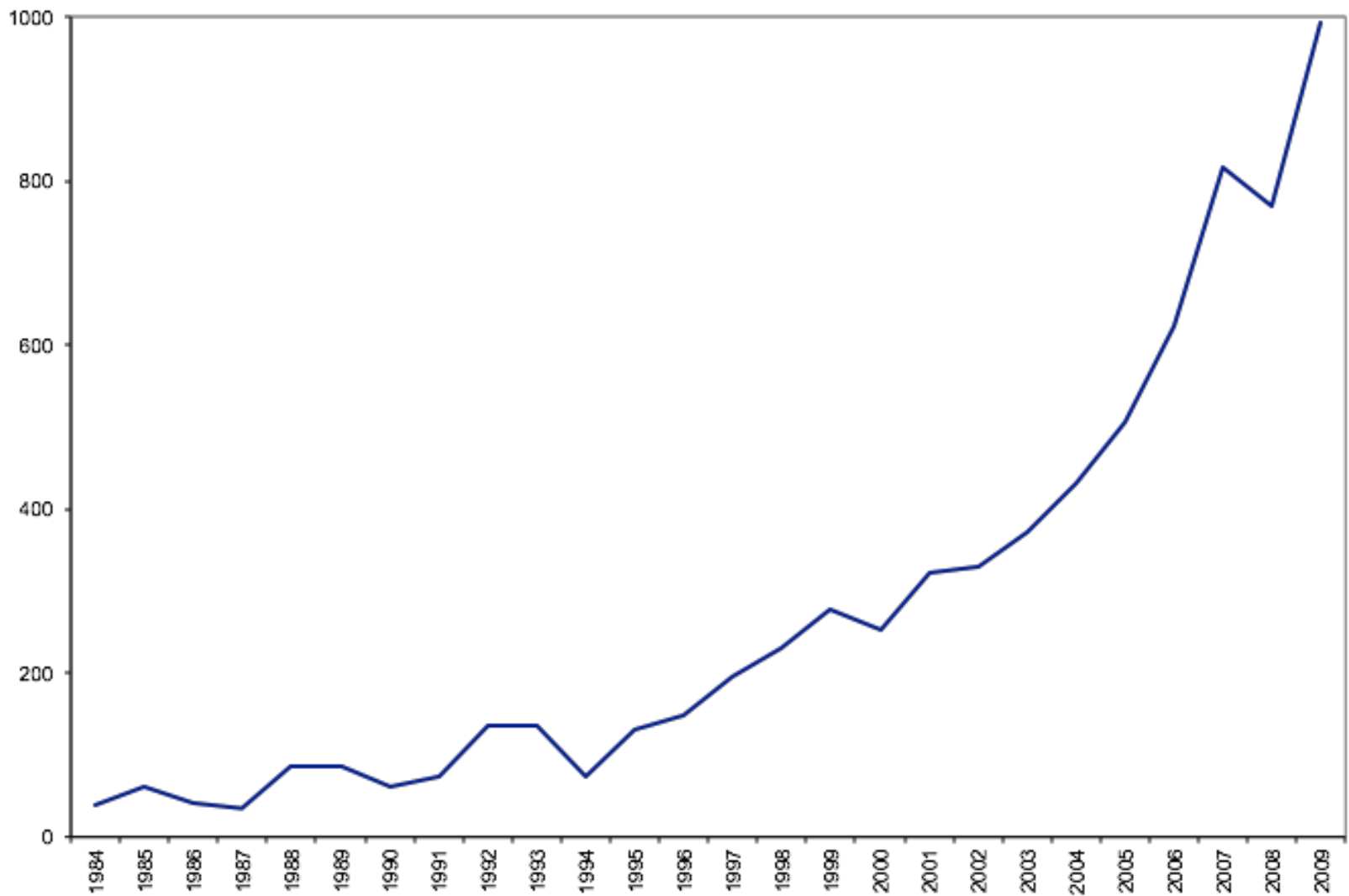
Who benefits?

- NOT most SW firms, startups
 - Large SW firms
 - Large HW firms
-

What are the costs?

#1. Litigation

- Deadweight losses
 - Reduced innovation incentives
-



Lawsuits filed involving SW patents

Probability patent in lawsuit

<u>Patent technology</u>	<u>Percent in lawsuit</u>
Chemical	1.1%
Other	2.2%
Software	4.6%
Business method	13.7%

"Fuzzy Boundaries"

- Word games
 - Abstract claims
 - Not tied to particular product / code
 - Broad, functional claims
 - Abuses
 - continuations
 - multiple patents
-

Software patents => Word Games

Patent: 7,222,078

Methods and systems for gathering information from **units of a commodity across a network**

Claim 1. A system comprising: units of a commodity that can be used by respective users in different locations, a user interface, which is part of each of the units of the commodity, configured to provide a medium for two-way local interaction between one of the users and the corresponding unit of the commodity, and further configured to elicit, from a user, information about the user's perception of the commodity, a memory within each of the units of the commodity capable of storing results of the two-way local interaction, the results including elicited information about user perception of the commodity, a communication element associated with each of the units of the commodity capable of carrying results of the two-way local interaction from each of the units of the commodity to a central location, and a component capable of managing the interactions of the users in different locations and collecting the results of the interactions at the central location.

Commodities on a network



Patent Troll

Patent: 7,222,078

- Asserts against 100's of smartphone app developers
 - individuals to large companies
 - Sues 27 so far
-

Patent Trolls:

A business model
to take advantage of
weakness
in patent system

Patent Trolls:

patent assertion entities

v

technology brokers

Patent troll lawsuits

70 - 90% involve software patents

5,824 defendants in 2011

82% of defendant firms are small (revenue < \$100m)

- median revenue: \$10m
-

Medical imaging companies

- Business unit revenue fell 30%
- Stopped updates / innovations for 2 years

Web startup

- Small company
 - 7 assertions in last 3 years
 - Basic web functions
 - Cost
 - Lost 2 \$million+ deals
 - Management / engineering time
-

Startups most vulnerable

“Death knell” to pre-funded company

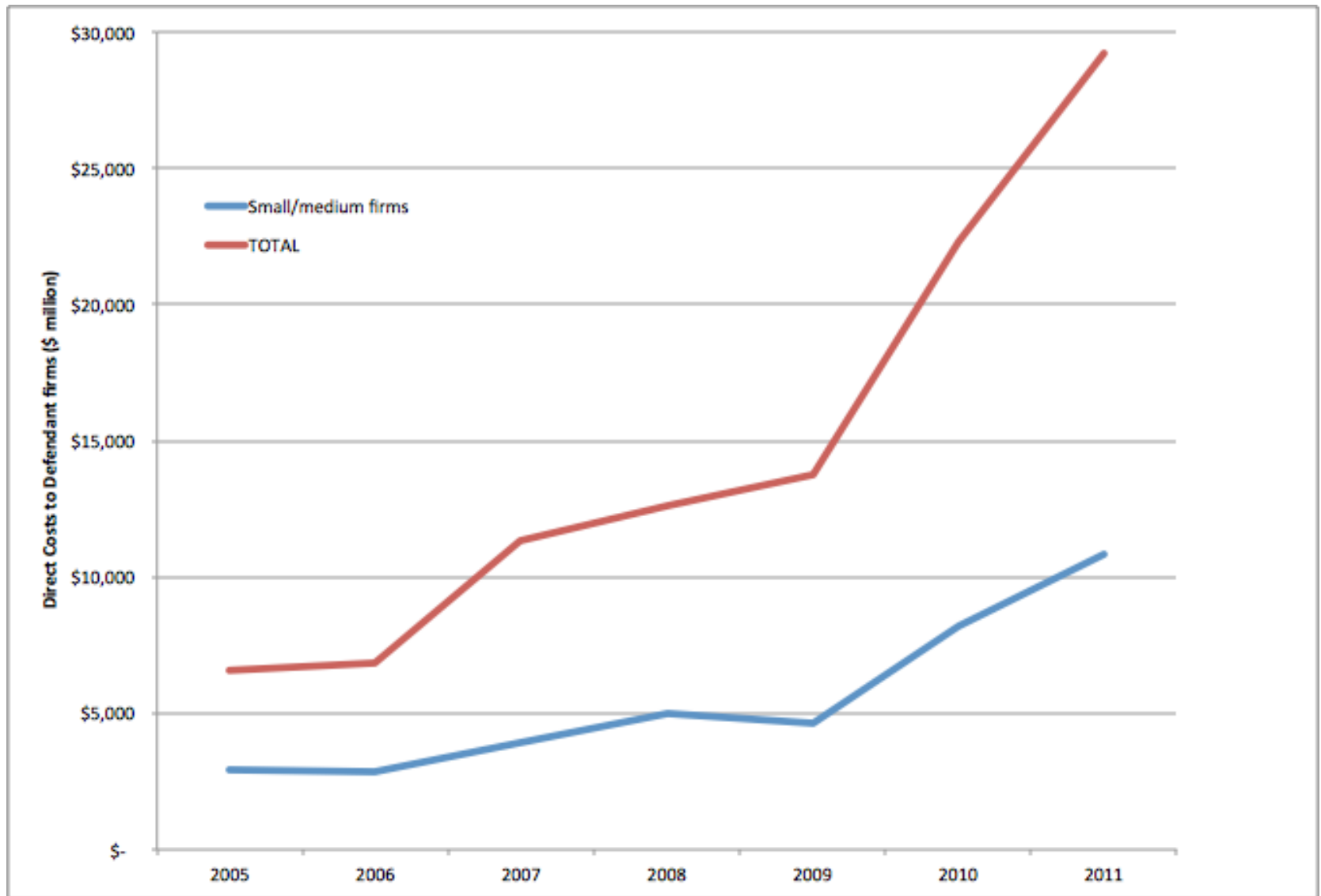
“It was agonizing to hand over all the money we had earned from a product we had invented and created ourselves to a firm that invents nothing and creates nothing. Our founder has since lost his house, car, all his assets.”

“They sued my startup for infringement on a group of insanely broad software patents...Extortion, pure and simple.”

“We have limited ourselves to the UK & European markets, simply because the mere threat of Patent Litigation if we enter the US market, is a WHEN not IF question.”

Costs / Troll defense

	Median	Mean	Number defenses
Troll Revenues _{settlement costs} <small>Publicly listed troll firms</small>	--	\$3.7m	1,393
Defendant survey _{Settlement costs + legal expense + accrued settlement costs for suits in progress}	\$0.1m	\$5.0m	1,184
Defendant stock loss _{Total loss to investors} <small>Publicly listed firms only</small>	\$7.6m	\$62.5m	3,458



Direct Costs of Patent Troll Assertions

A TAX on R&D

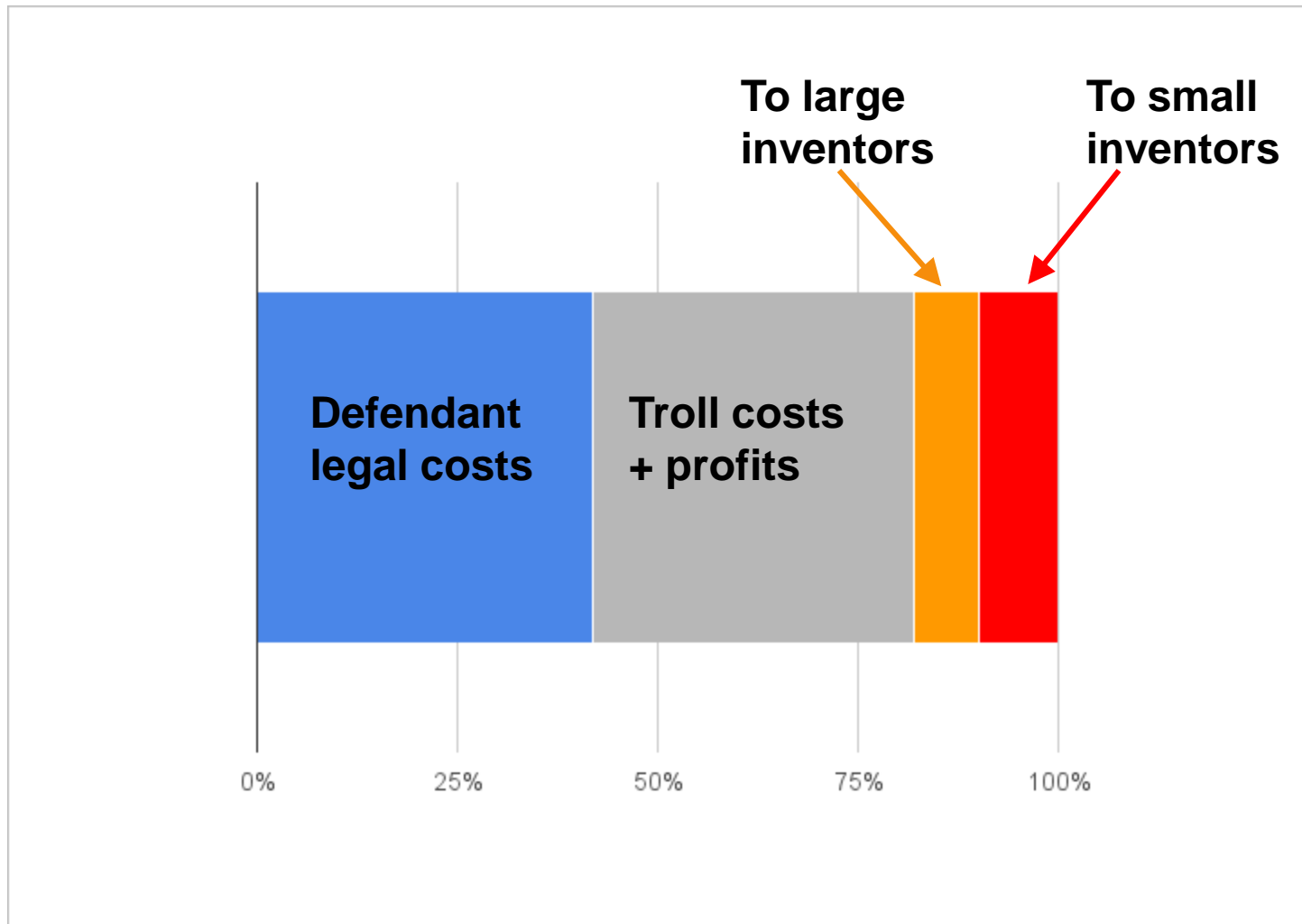
Direct costs	\$29 b
Business R&D	\$247 b
Direct costs / R&D	12%
Total costs / R&D	~20%

**Do trolls help
small inventors
enforce patents?**

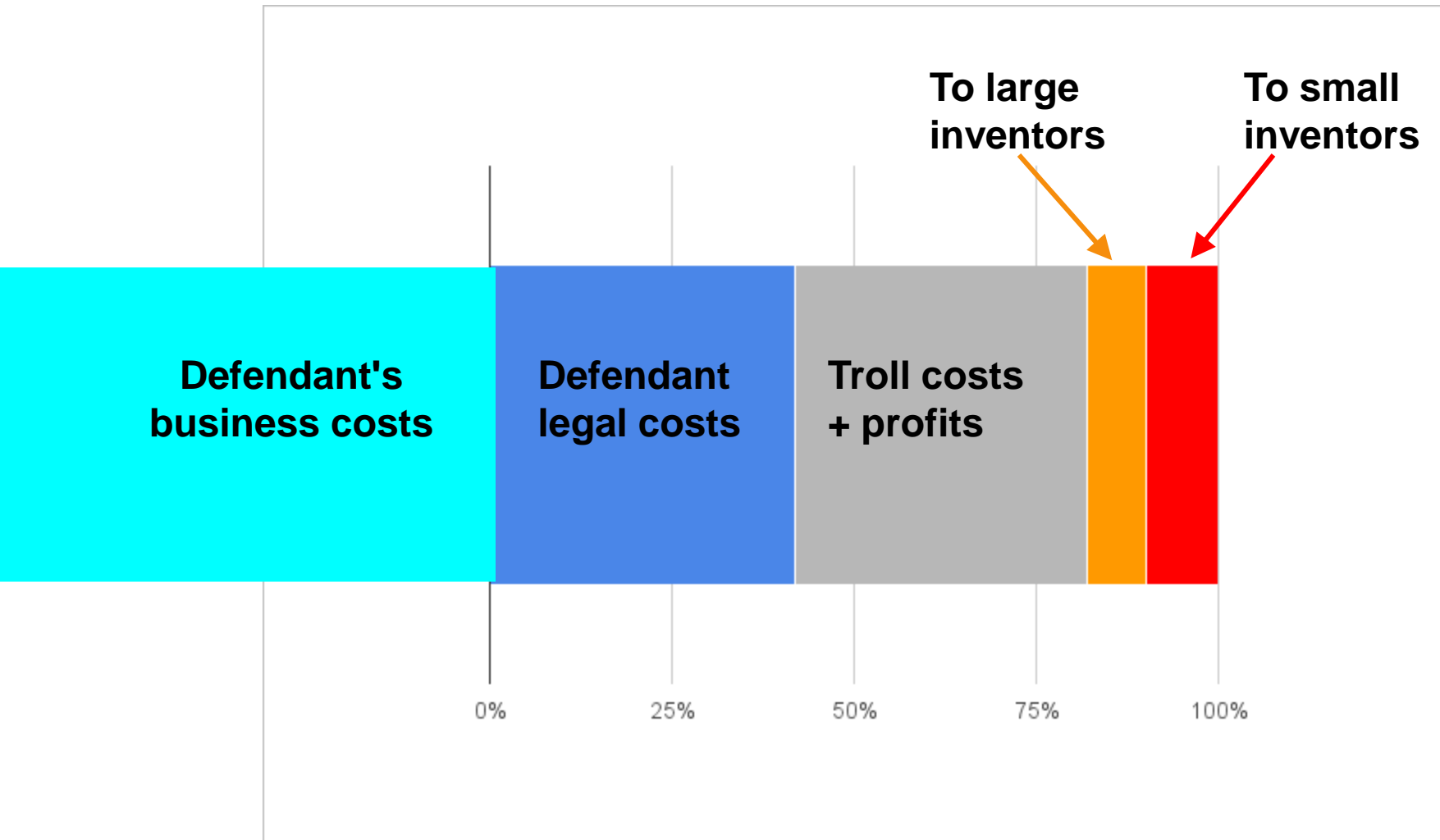
Defendants are often **real** innovators

- Avg. troll patent is 8 years old
 - Abstract, vaguely worded patents
 - Now read to cover new technologies
-

Share of Direct Costs



Share of Costs



Troll costs

>>

Troll \$ to inventors

Especially small inventors

A TAX on R&D...Net of troll \$

Direct costs	\$29 b
Business R&D	\$247 b
Direct costs / R&D	11%
Total costs / R&D	~19%

The past

Patent "sharks" in 1800s

- Supreme Court action in US
 - Abolition movement in UK, Europe
 - Britain: major reform 1882
 - Netherlands: abolition 1869
-

The future ?

