

Santa Clara
University

Patent Assertion Entities

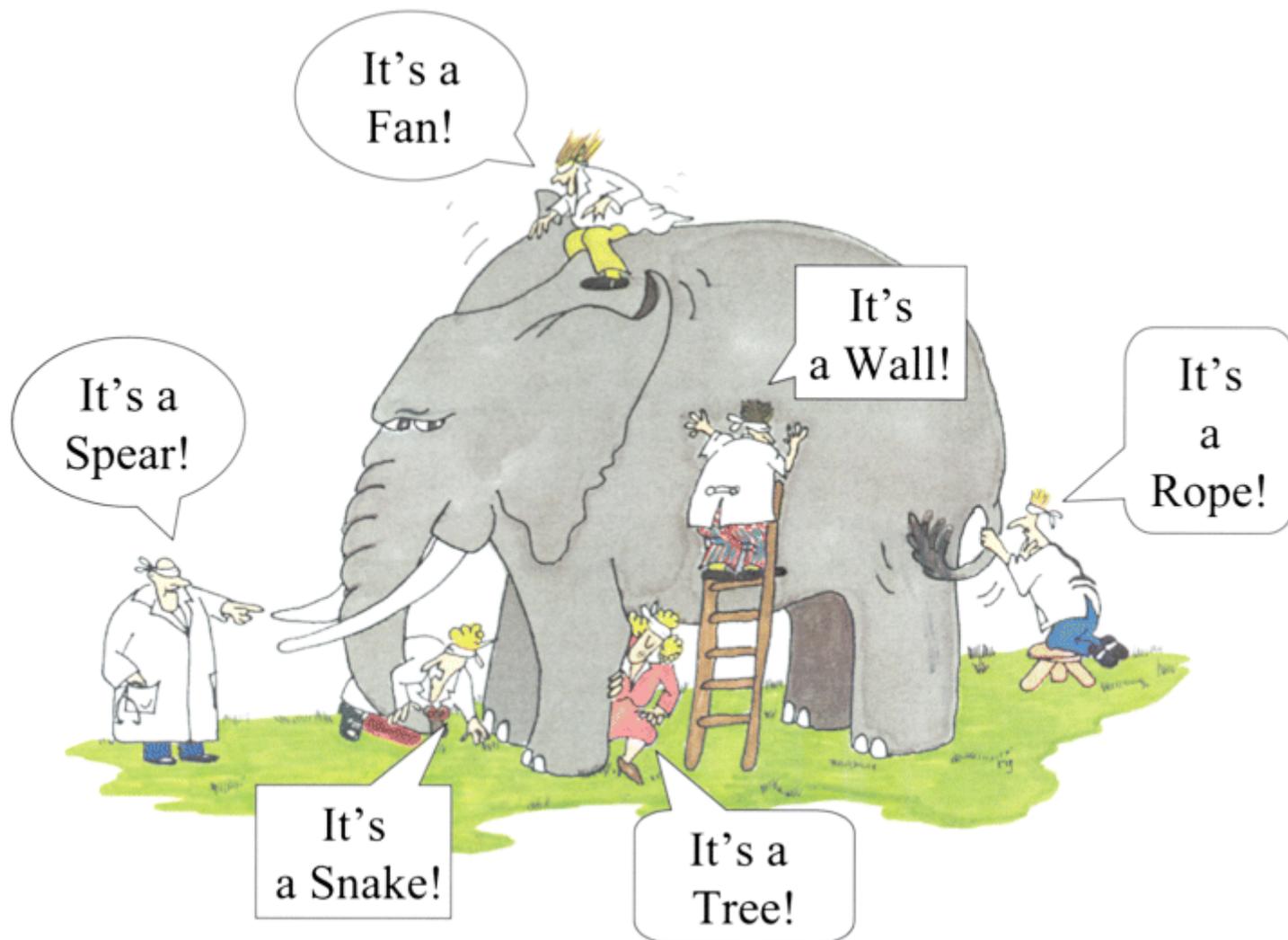
December 10, 2012

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There are many ways to view patent assertion entities



What is a patent assertion entity?

Justice Kennedy: “firms [that] use patents not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees.”

What is a patent assertion entity?

FTC/Chien: an “entity that uses patents primarily to obtain license fees rather than to support the development or transfer of technology.”

What is a patent assertion entity?

A company that asserts patents on existing products as a business model

Asserting patents on existing products as a business model distinguishes PAEs from other types of NPEs

Non-Practicing Entity Types

Universities

Non-Practicing
Defensive Aggregators

(Non-Practicing
Corporate Monetizers)

Startups

PAEs

Inventor
Monetizers

Special Purpose
Patent Monetizers

Why is the PAE business model interesting?

Traditional patent litigation economics are stacked against enforcement

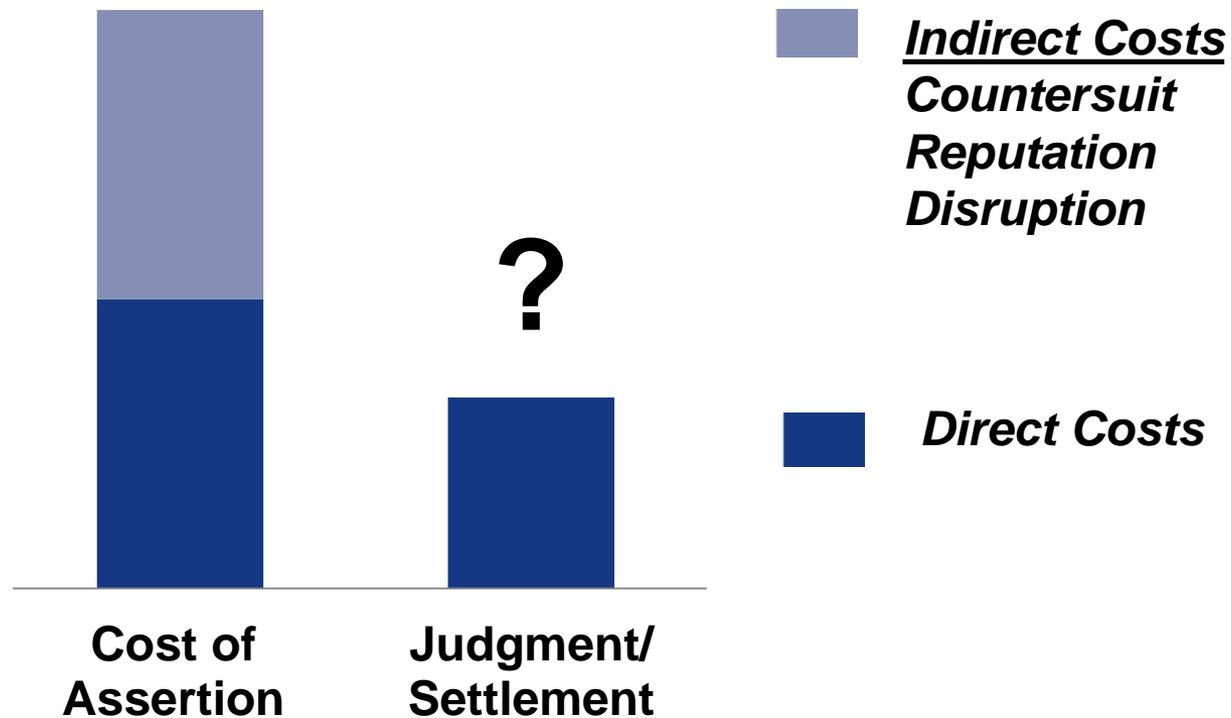
Traditional patent litigation economics are stacked against enforcement

Its Expensive to Bring a Patent Lawsuit



Traditional patent litigation economics are stacked against enforcement

It's Risky to Bring a Patent Lawsuit



$$COST > REVENUE = LOSS$$

These high costs and risks lead to the nonenforcement of patents

~250K estimated patents



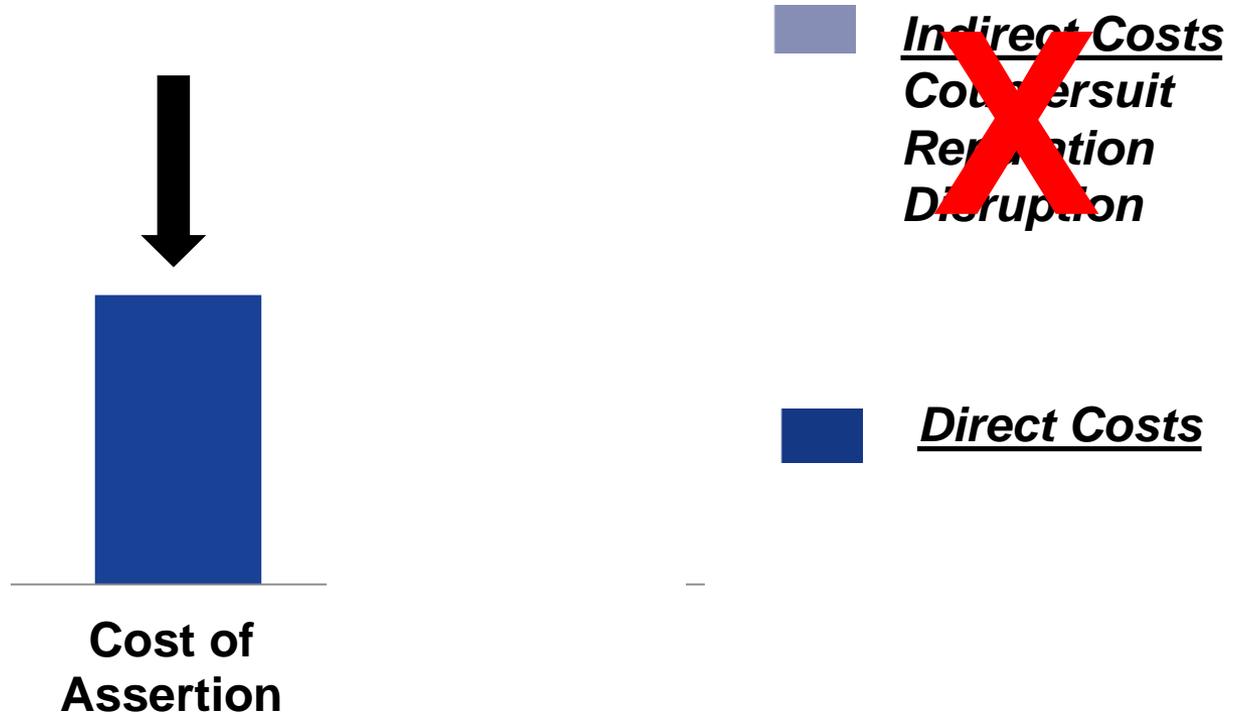
Only a tiny fraction is enforced

PAEs fundamentally change the economics of patent enforcement

PAEs don't make anything and can't be countersued, disrupted, or impugned



PAEs don't make anything and can't be countersued, disrupted, or impugned



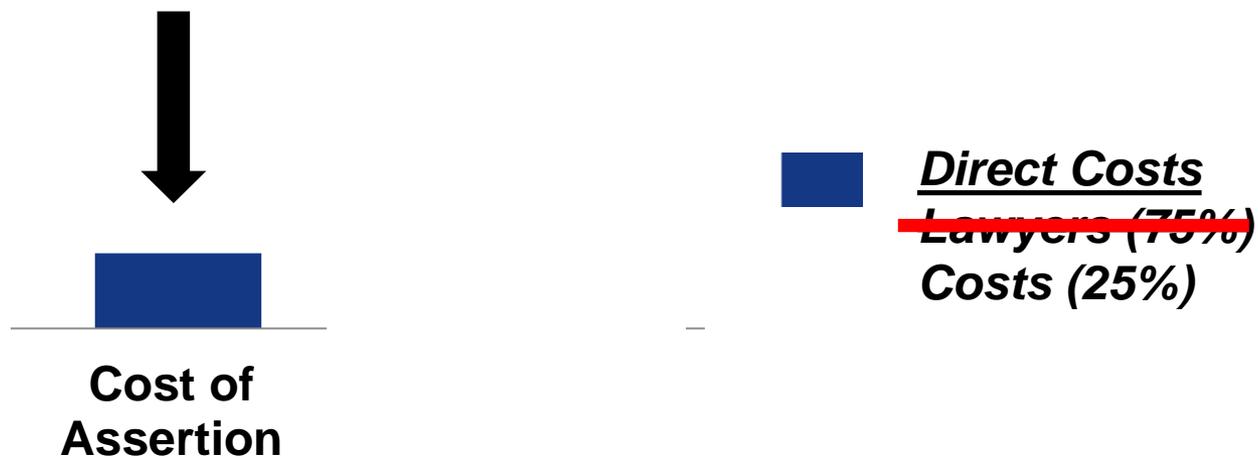
PAEs use contingent fee lawyers



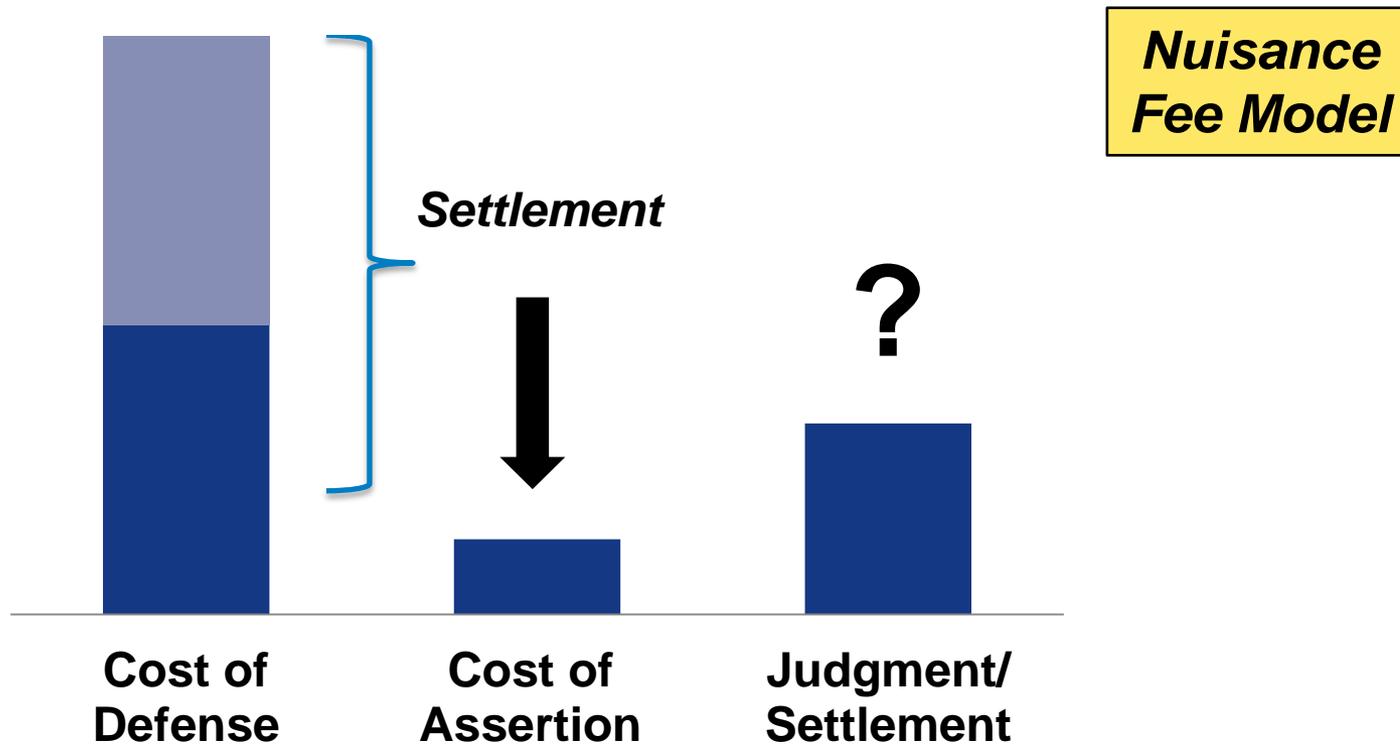
PAEs use contingent fee lawyers



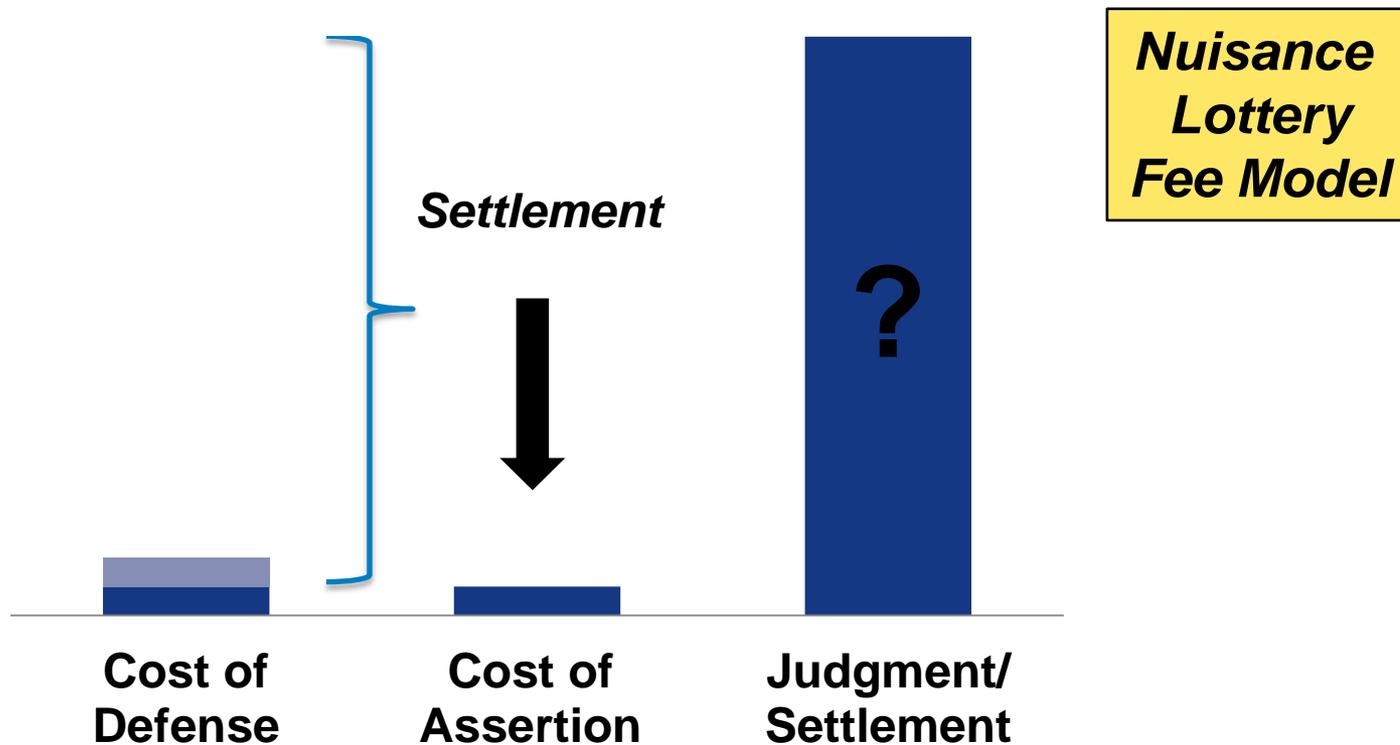
PAEs use contingent fee lawyers and assert the same patents in the same venues to capture economies of scale



PAEs make it economical to bring suit, and economical for the defendant to settle, regardless of the merits



PAEs make it economical to bring suit, and economical for the defendant to settle, regardless of the merits





Don't Call them Trolls

What is patent assertion?

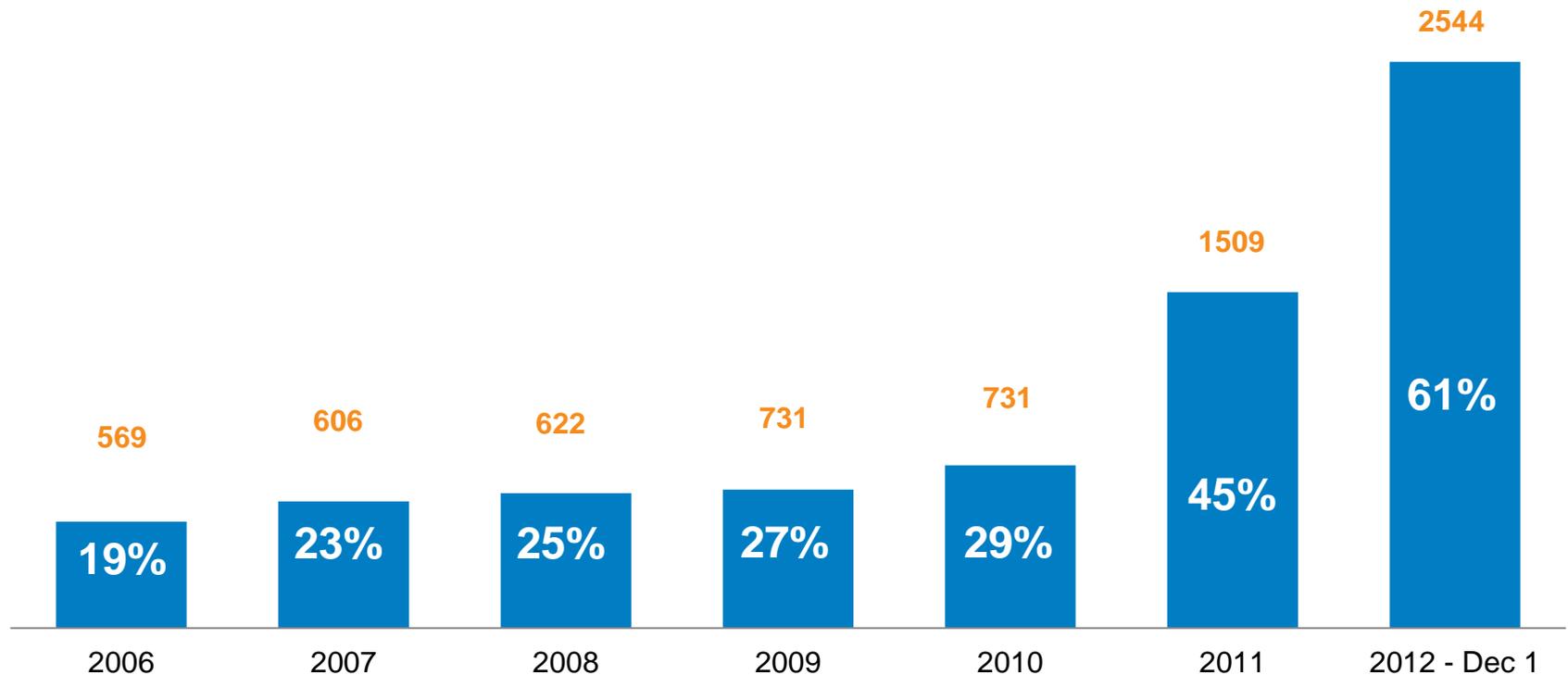
A pathbreaking, disruptive technology for monetizing patents that eliminates traditional obstacles to enforcement [and give the little guy a chance!]

What is patent assertion?

A pathbreaking, **legal** disruptive technology for monetizing patents that eliminates traditional obstacles to enforcement

This year, PAEs have brought the majority (61%) of patent lawsuits – 2,530 through December 1

PAE Suits as Share of Total Patent Infringement Suits



Source: RPX Research and PACER. Includes suits filed through 12/1/2012

What is patent assertion?

A pathbreaking, disruptive legal technology for monetizing patents that eliminates traditional obstacles to suit

That represents the majority of new patent cases

For every lawsuit, many demands are made

What is the Ratio of Demands to Suits?

25-50:1 – estimate of high end sell-side patent broker

307:1 – Cisco et al v. Innovatio, Case No. 1:11-cv-09308, Lex Machina (8,000+ letters, 26 cases)

We don't know exactly what's happening but it's likely that....

What is the Ratio of Demands to Suits?

25-50:1 – estimate of high end sell-side patent broker

307:1 – Cisco et al v. Innovatio, Case No. 1:11-cv-09308, Lex Machina (8,000+ letters, 26 cases)

**Most patent fights are
not conducted in public**

Public cases and private demands are often resolved under NDA



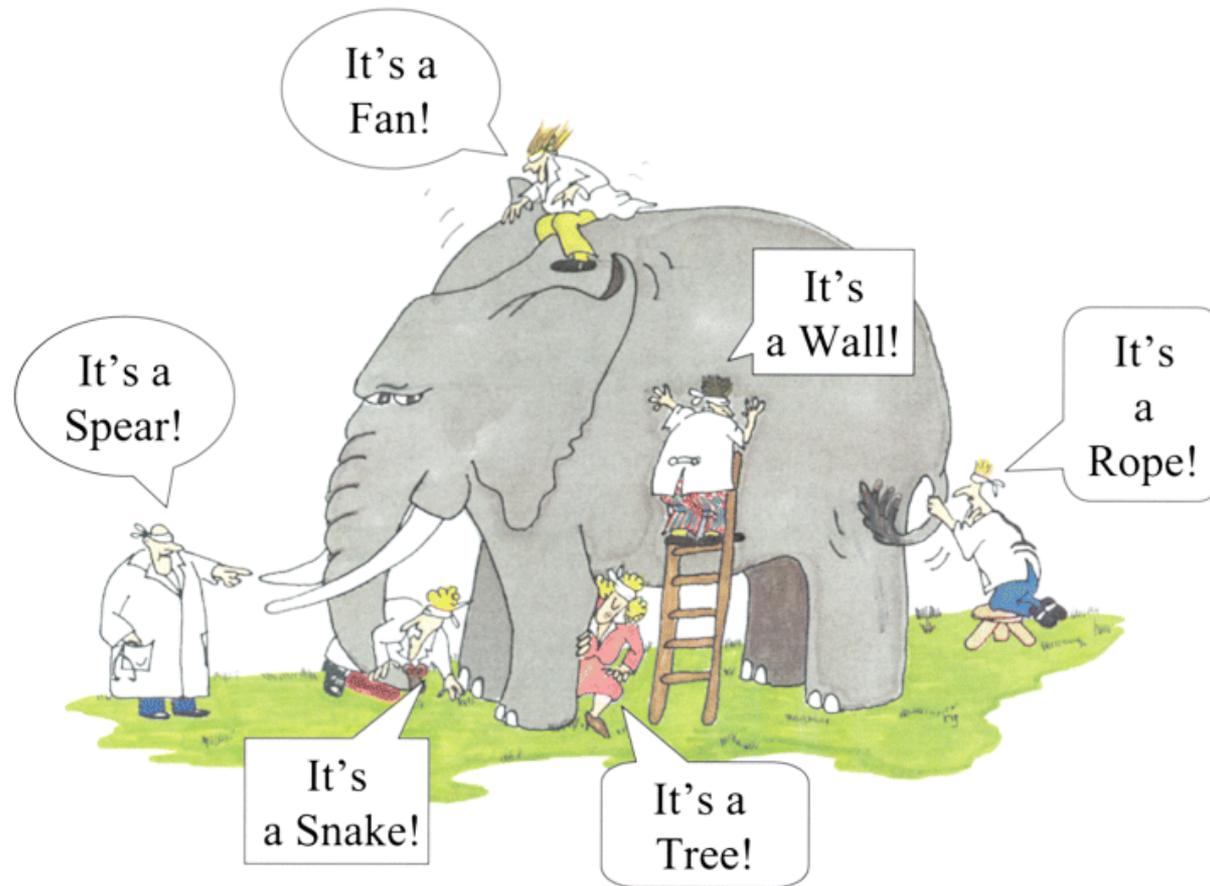
What is patent assertion?

A pathbreaking, disruptive legal technology for monetizing patents that eliminates traditional obstacles to suit

That represents the majority of new patent cases

About which we don't really understand the consequences, good or bad

Now that we know what we are talking about



No. It's an elephant

This view

This view is empirical and descriptive, but motivated by policy concerns

Datasources

 Lex Machina
IP litigation data and analytics

CrunchBase

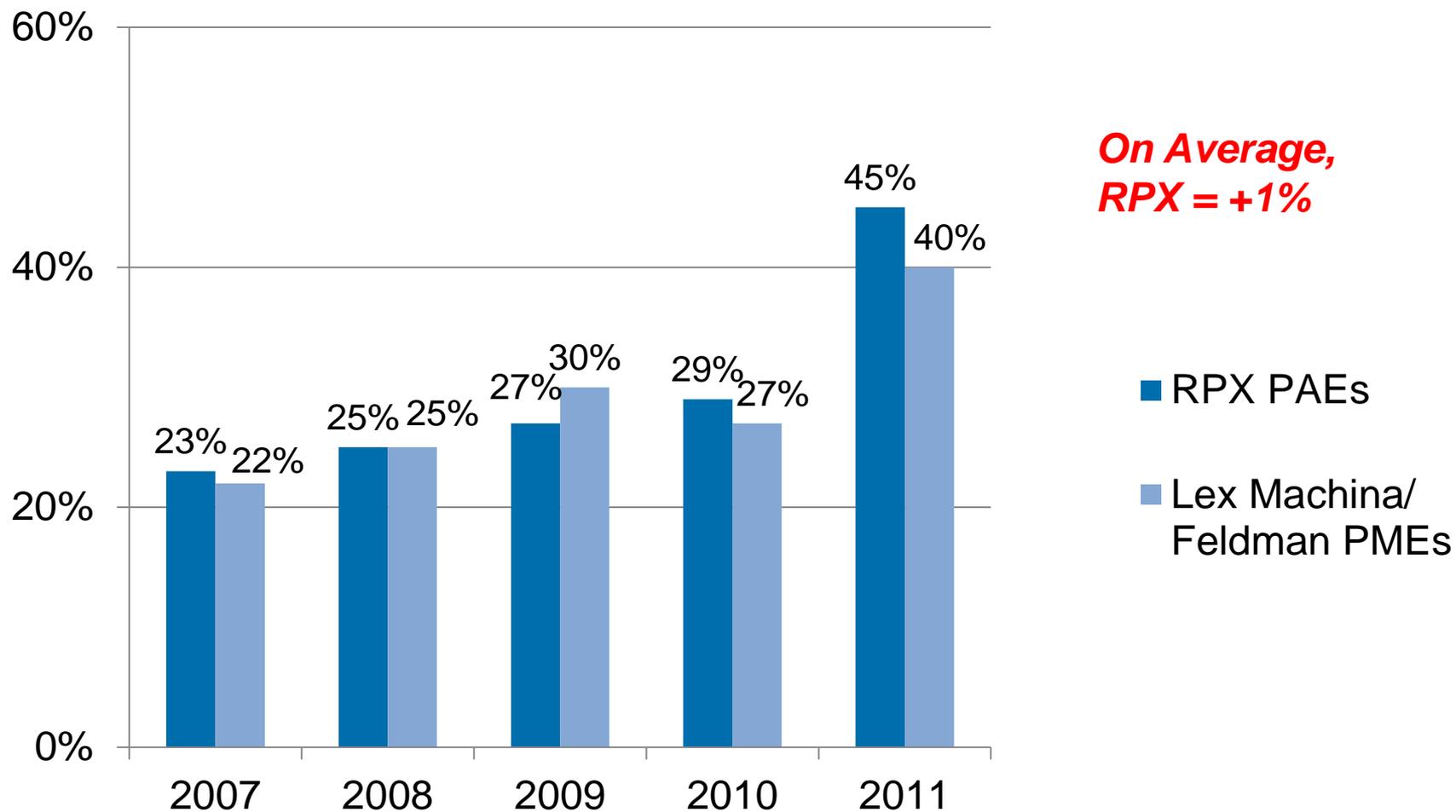
Open database of 100K+ startups and tech companies

Literature,
Survey and Interview
Subjects



RPX
RATIONAL PATENT®

RPX Data is on average within 1% vs. Lex Machina/Feldman 2012 coding for the GAO



See also *RPX v. Chien 2009* (943 codings compared), reported in *Chien 2012, Startups and Patent Trolls* (finding $RPX = +4\%$ PAEs)

This Presentation

- 1. Economics/Business Models of Patent Assertion**
- 2. Case Study: Harms/Benefits to Startups**
- 3. Policy Issues**
- 4. Monitoring/Research Agenda**

This Presentation

1. Economics/Business Models of Patent Assertion

PAEs capture economies of scale, over multiple defendants and campaigns

Sample PAE Business Plan



Revenue

Settlements

Settlements

Settlements

Cost

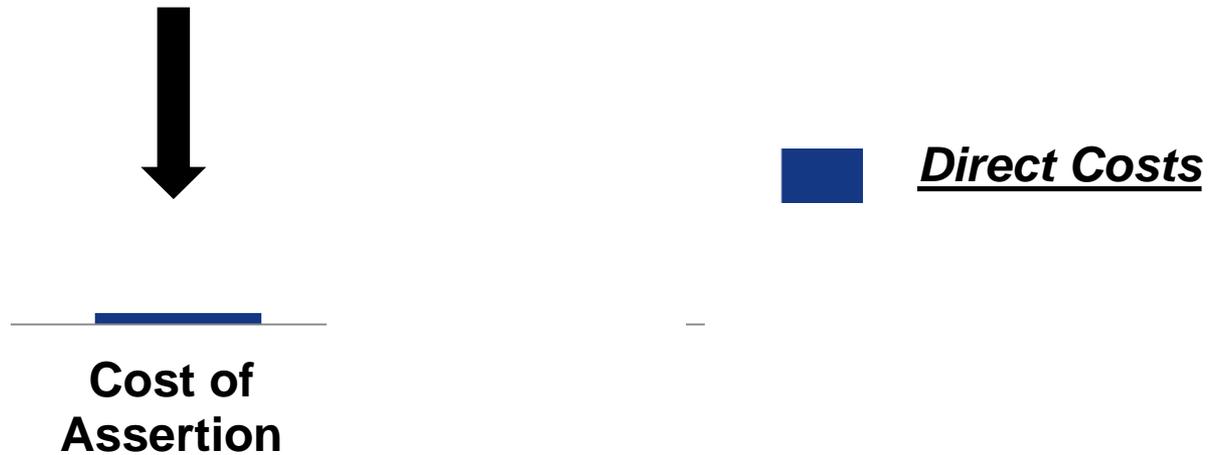
Cost of Acquisition

Financing/
Legal Costs

Marginal Cost of Assertion

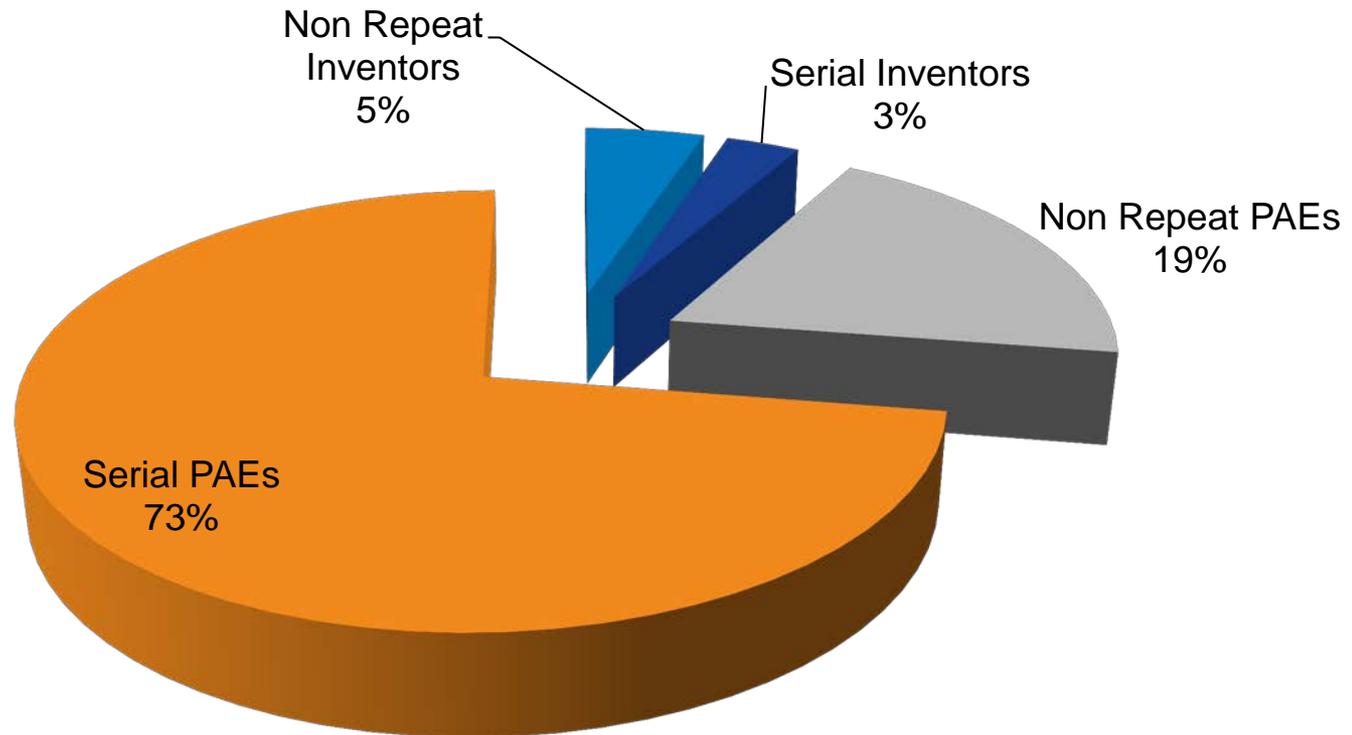
The business model is risky – you may never get your investment back.

PAEs capture economies of scale, over multiple defendants and campaigns



The majority (76%) of PAE defendants are sued by a PAE that has named 15+ defendants over 2 or more suits

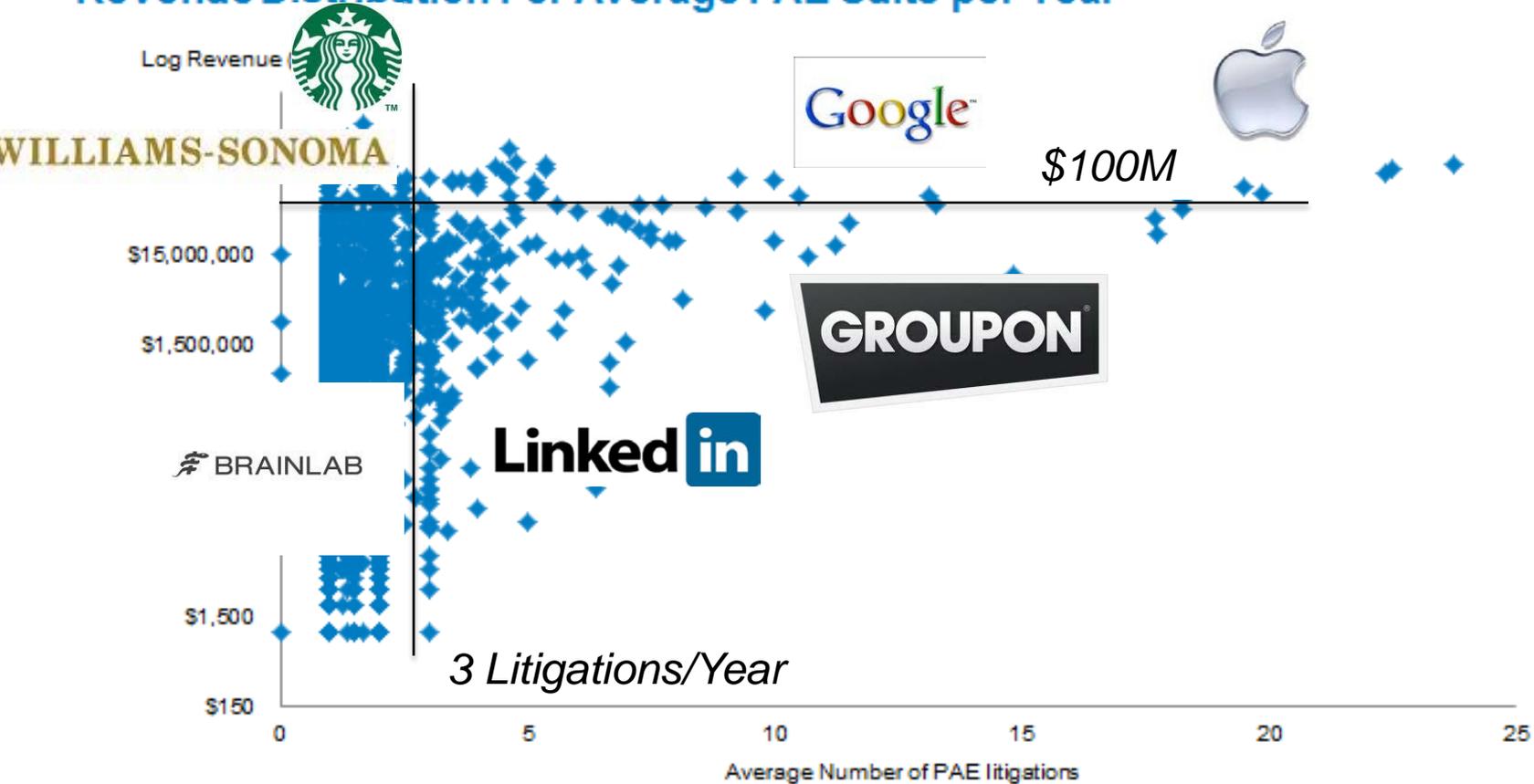
Distribution of “Serial PAEs” by Defendants Named (Jan 1, 2011 – Dec 1, 2012)



Serial PAEs have named more than 15 defendants in more than 1 suit, Aggressive Repeating Inventors have named more than 15 defendants in more than 1 suit

Although suits against large tech companies get the most attention, defendants revenue/industry profiles vary widely

Revenue Distribution For Average PAE Suits per Year



Source: RPX Research and PACER. Includes suits filed through 12/1/2012

There are several drivers of settlement

Economic Value/Remedies-Driven Settlement

“[When] the Sword of Damocles of a jury verdict or [an] ITC injunction hanging over their heads.”

Contingent Fee Lawyer Interviewee; David Schwartz,
The Rise of Contingent Fee Lawyer Representation in Patent Law, __ Ala. Law Rev. ____ (forthcoming 2012)

See Shapiro and Lemley 2007

?

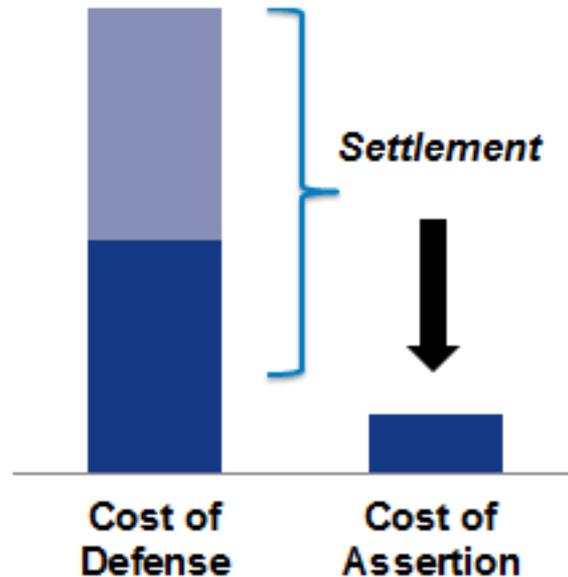


Judgment/
Settlement

Settlement driven by how much it would cost to switch out the technology (injunction) or what a court might award in damages

Cost of Defense-Driven Settlement

When it's cheaper to fold than fight

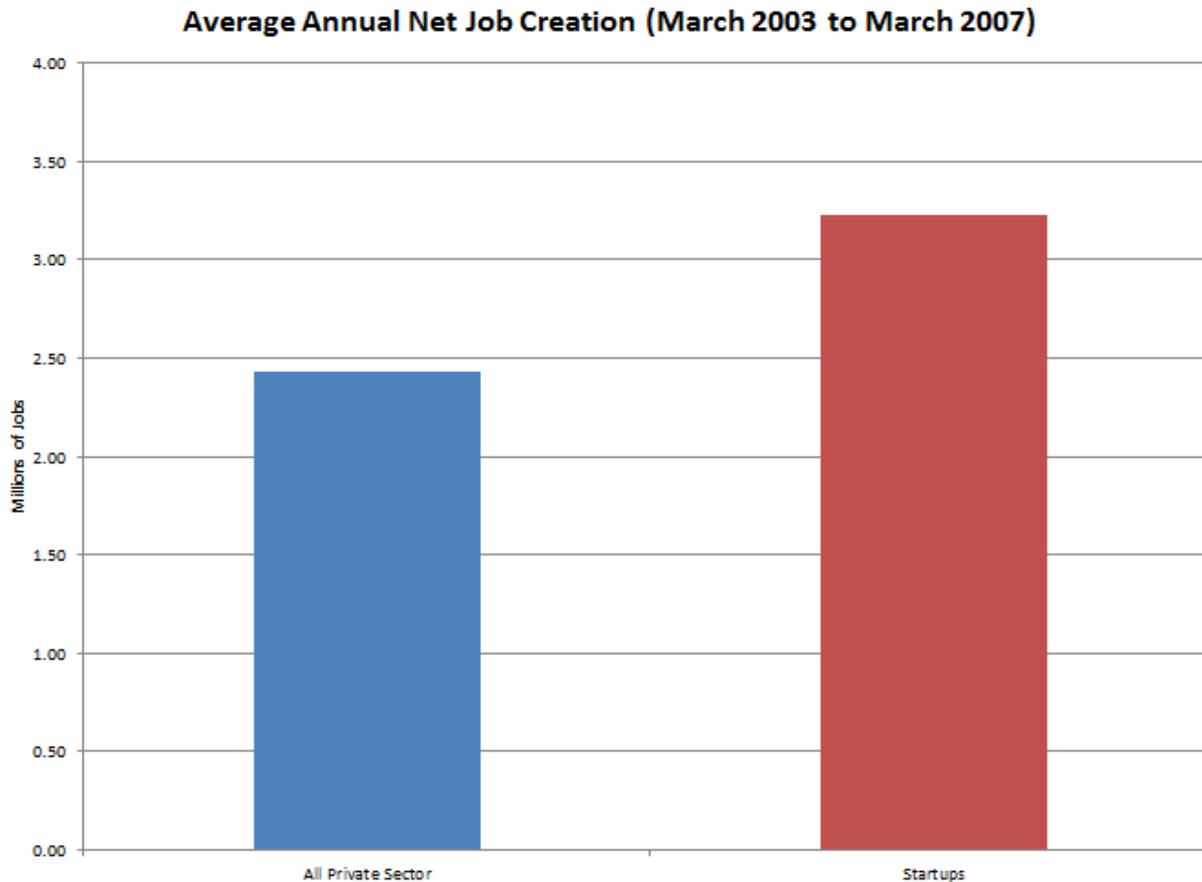


Chien 2012, Reforming Software Patents

Settlement driven by the cost of defense

2. Case Study: Harms/Benefits to Startups

Why Startups Matter: from 2003-2007 they created more new jobs than other firms in the private sector

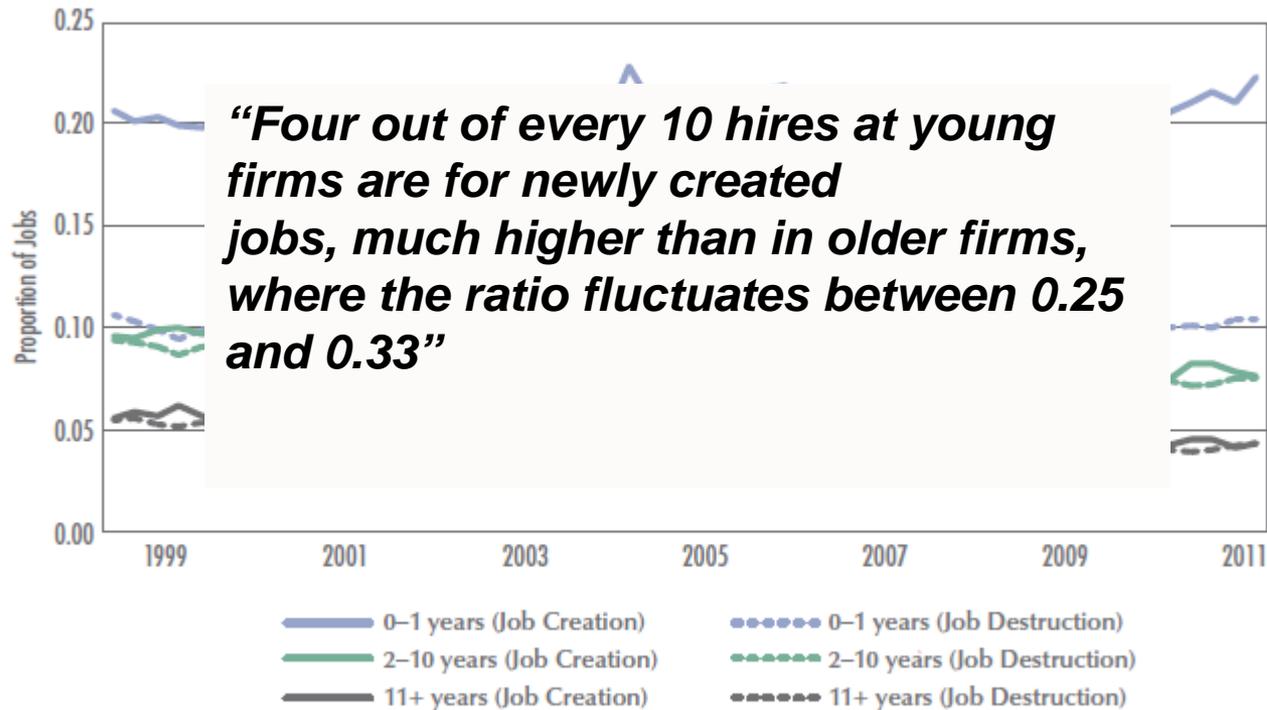


Source: BDS

Credit: John Haltiwanger

Startups create new jobs, but they also change course/fail at a high rate, shedding assets like patents

Figure 1
Quarterly Job Creation and Destruction by Firm Age

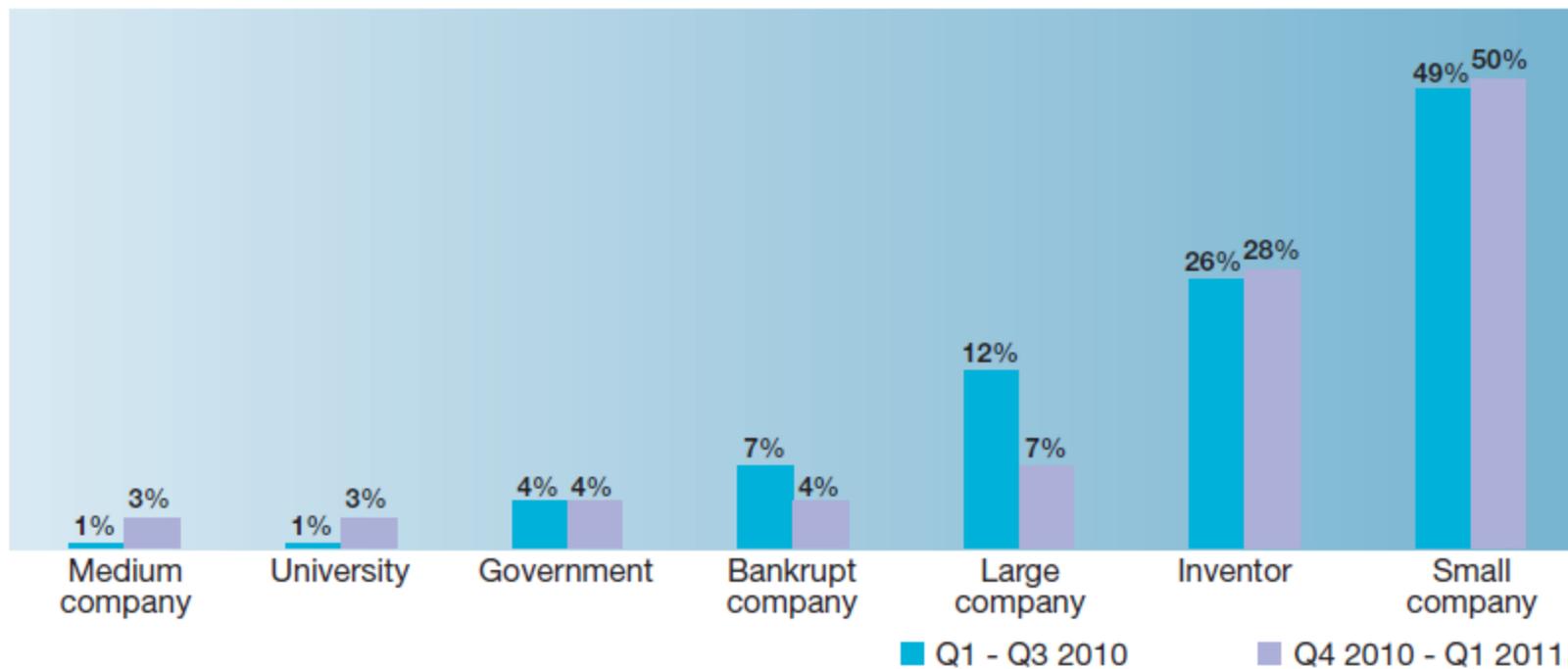


Source: Authors' calculations based on seasonally adjusted QWI tabulations for twenty-eight states.

How are PAEs benefiting small companies?

NPE/PAE buy and litigate the patents of small companies (\$200M) more than the patents of others

Figure 2. Small companies and individual inventors remain the primary source of NPE/PAE patents



Note: NPE litigations for relevant market sectors including: consumer electronics and PCs, e-commerce and software, financial services, media content and distribution, mobile communications and devices networking and semiconductors. NPE, NCE, INV and university suits included

Source: RPX Corporation (c) 2011. Data based on NPE transactions from Jan 2010 to March 2011

Some startups are interested in monetizing their patents (although unclear if PAE v. ex ante transfer)

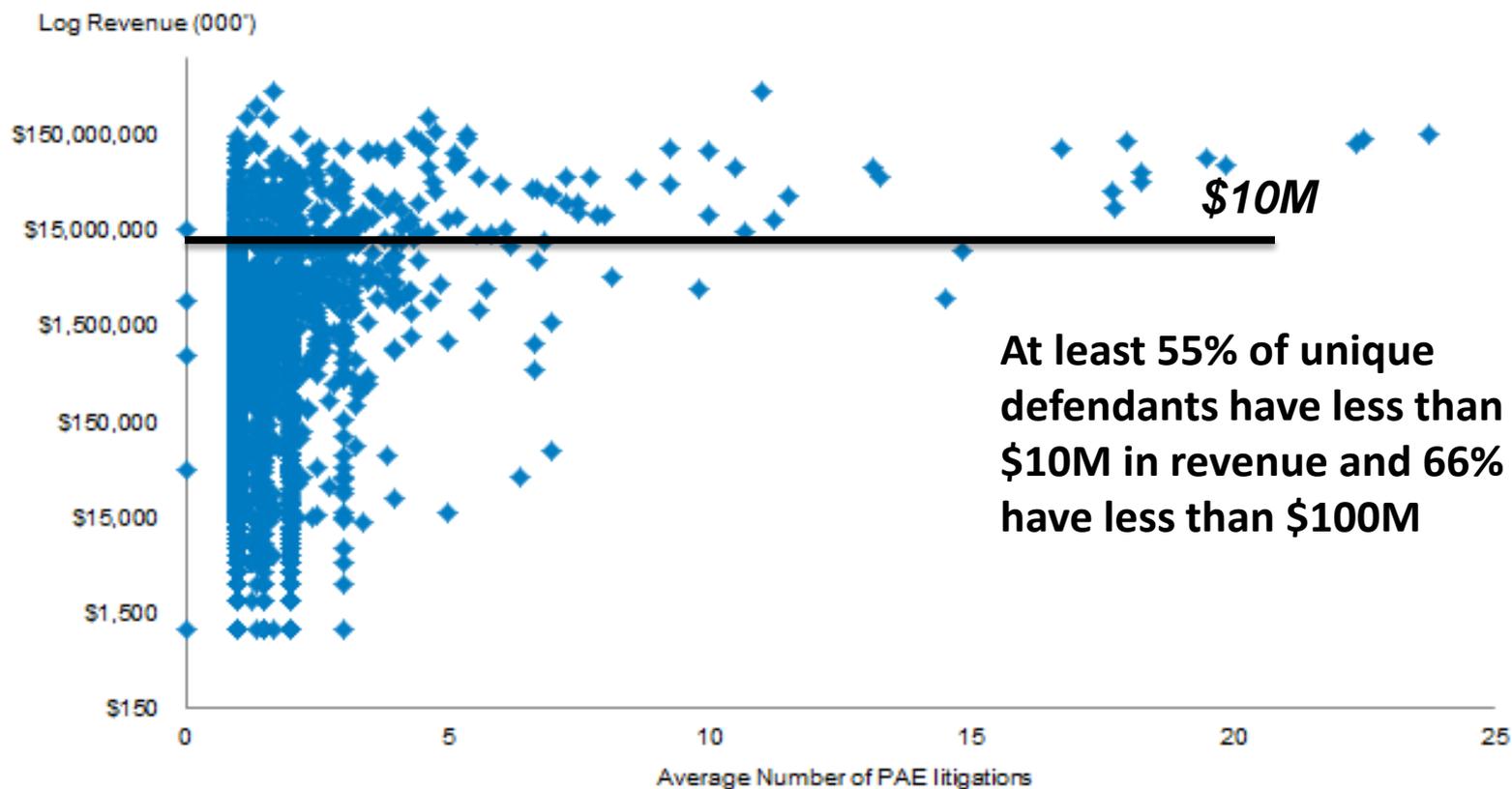
4% of 223 nonrandom survey respondents reported that they had monetized their patents, with another 20% saying that they had considered it.

Chien 2012, Startups & Patent Trolls

How are PAEs harming small companies?

The majority of PAE defendants (at least 55%) have less than \$10M in revenue

Revenue Distribution For Average PAE Suits per Year



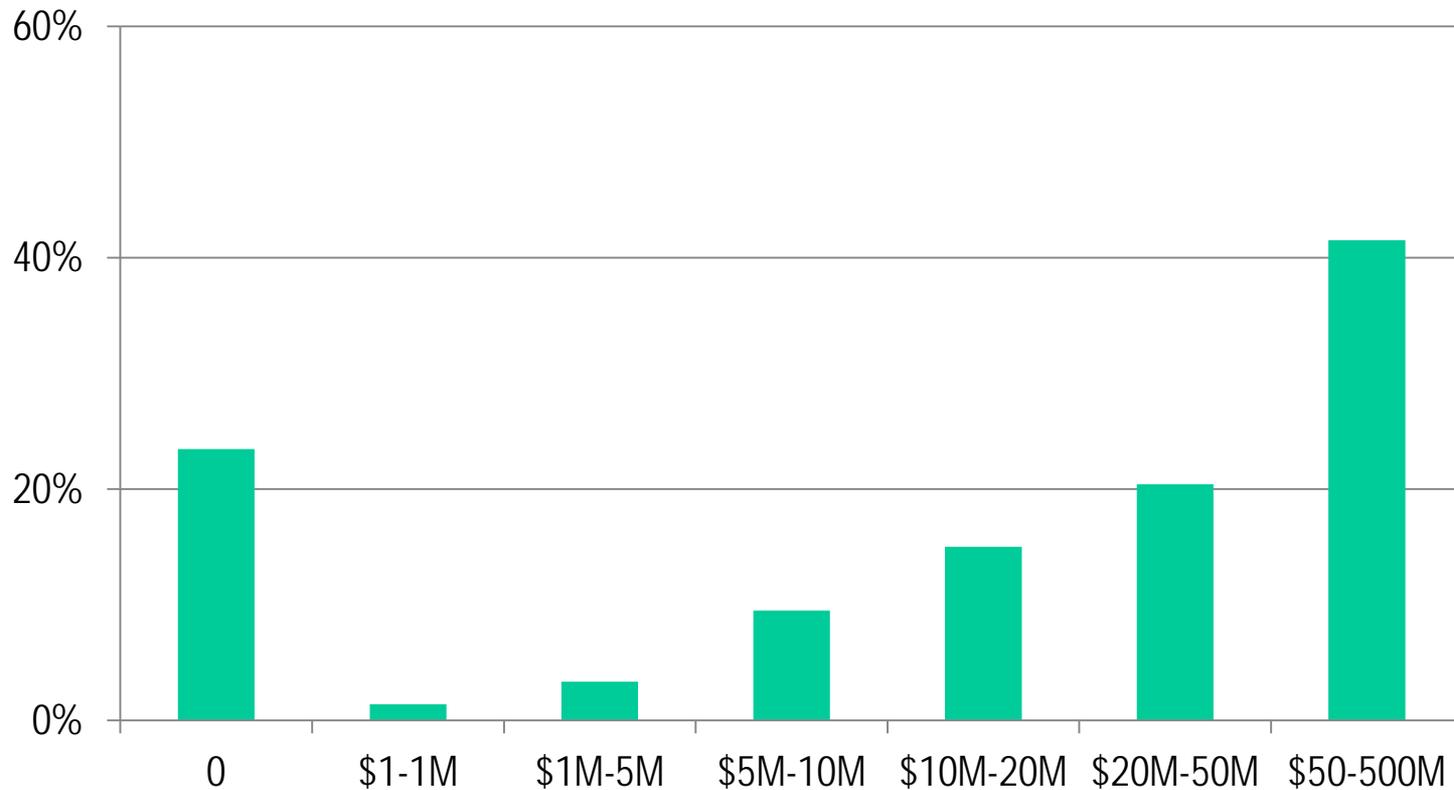
Source: RPX Research and PACER. Includes suits filed through 12/1/2012

Why are small companies being sued?



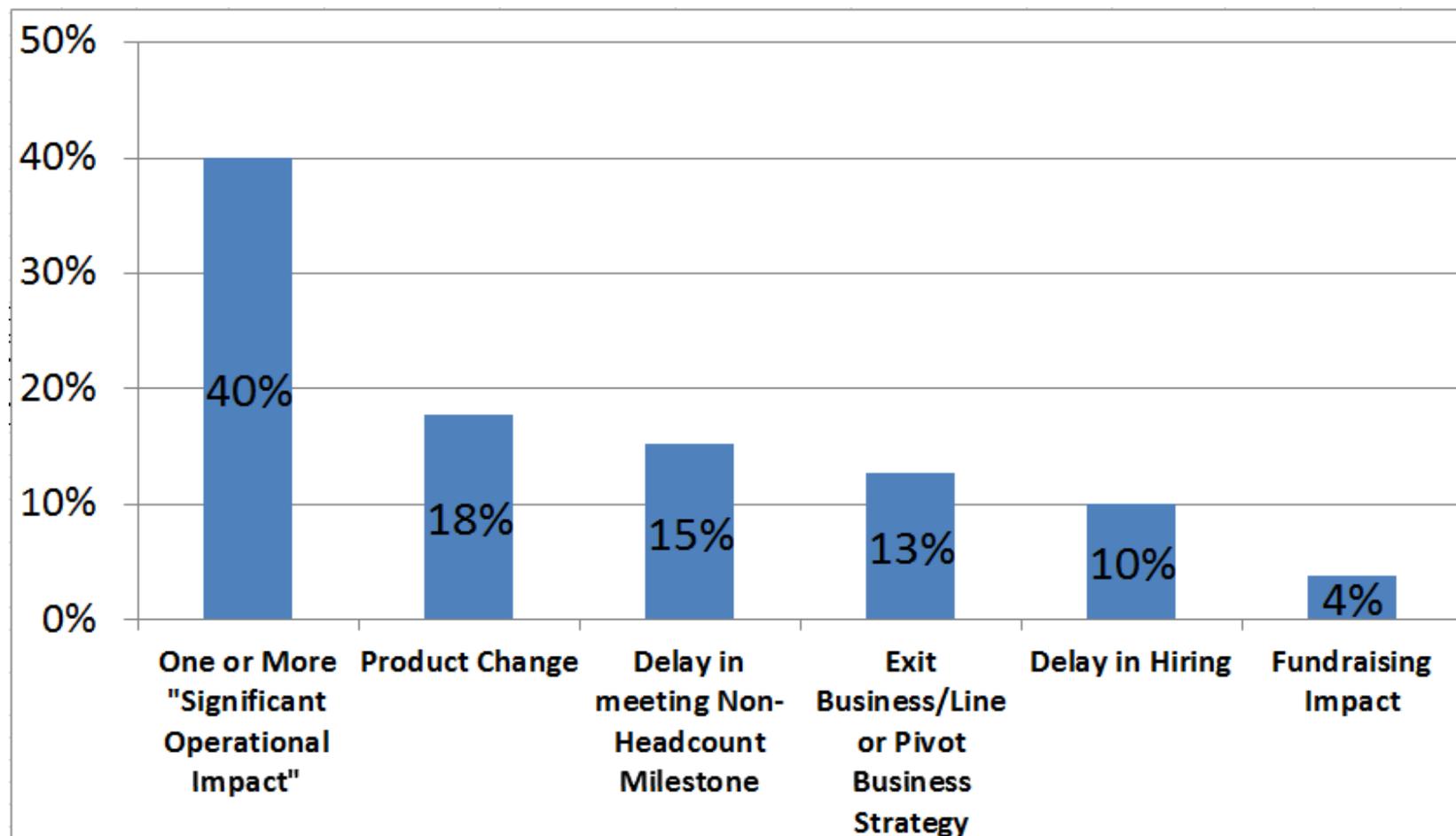
The more funding a startup gets, the more likely it is to be sued.

% of Companies Sued (By Funds Raised)



N= ~ 200 per category. Based on author analysis of ~1600 companies in Crunchbase and Lex Machina litigation records.

Some startups are harmed by PAE demands. More than a nuisance.



Chien 2012, Startups & Patent Trolls

We don't really know the net benefits or costs



This Presentation

3. Policy Issues

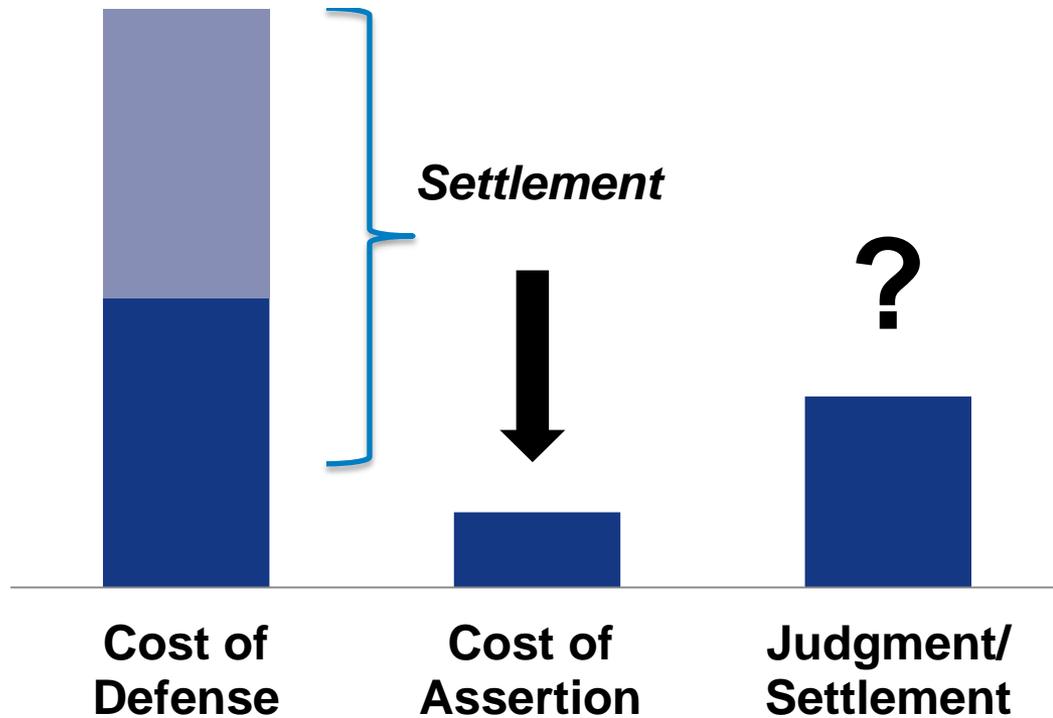
Before PAEs: widespread nonenforcement of patents

**~250K estimated
patents**



**Only a tiny
fraction is
enforced**

After PAEs: it can be economical to bring, and to settle suits, regardless of the merits



What are the pros and cons of rapidly increasing enforcement?

Before PAEs: widespread nonenforcement of patents

**~250K estimated
patents**



**Only a tiny
fraction is
enforced**

But widespread infringement has pro-competitive benefits

Patent is enforced

I get to have the feature



Patent is practiced, not enforced

**We all get to have the feature,
in all different forms and prices.**



Hooray for Competition!

When companies can't win in the courtroom, they must compete in the marketplace

Sources of Competitive Advantage

Courtroom



Freedom to litigate

Great patents

Great lawyers

Marketplace



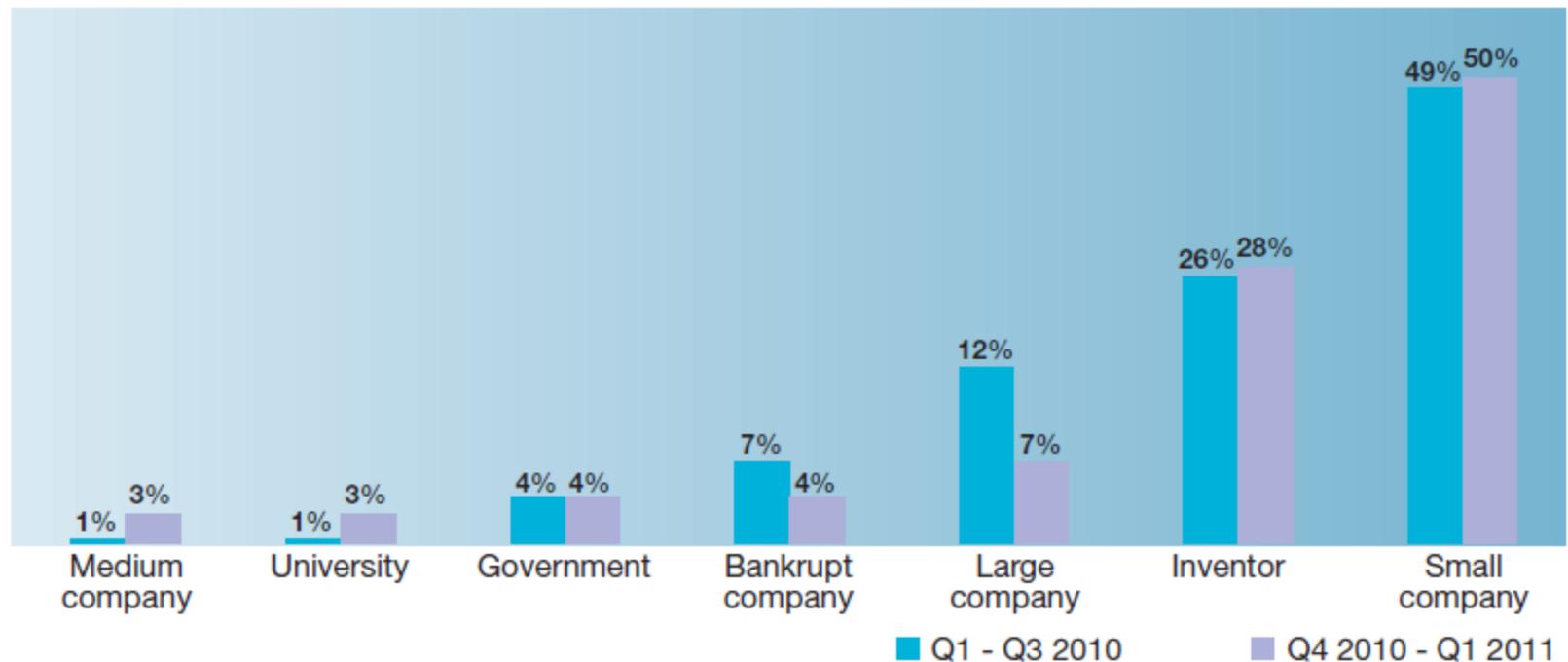
Freedom to innovate

Great products

Great marketing

But PAEs give the little guy a chance and create a demand for their patents – this should increase innovation

Figure 2. Small companies and individual inventors remain the primary source of NPE/PAE patents



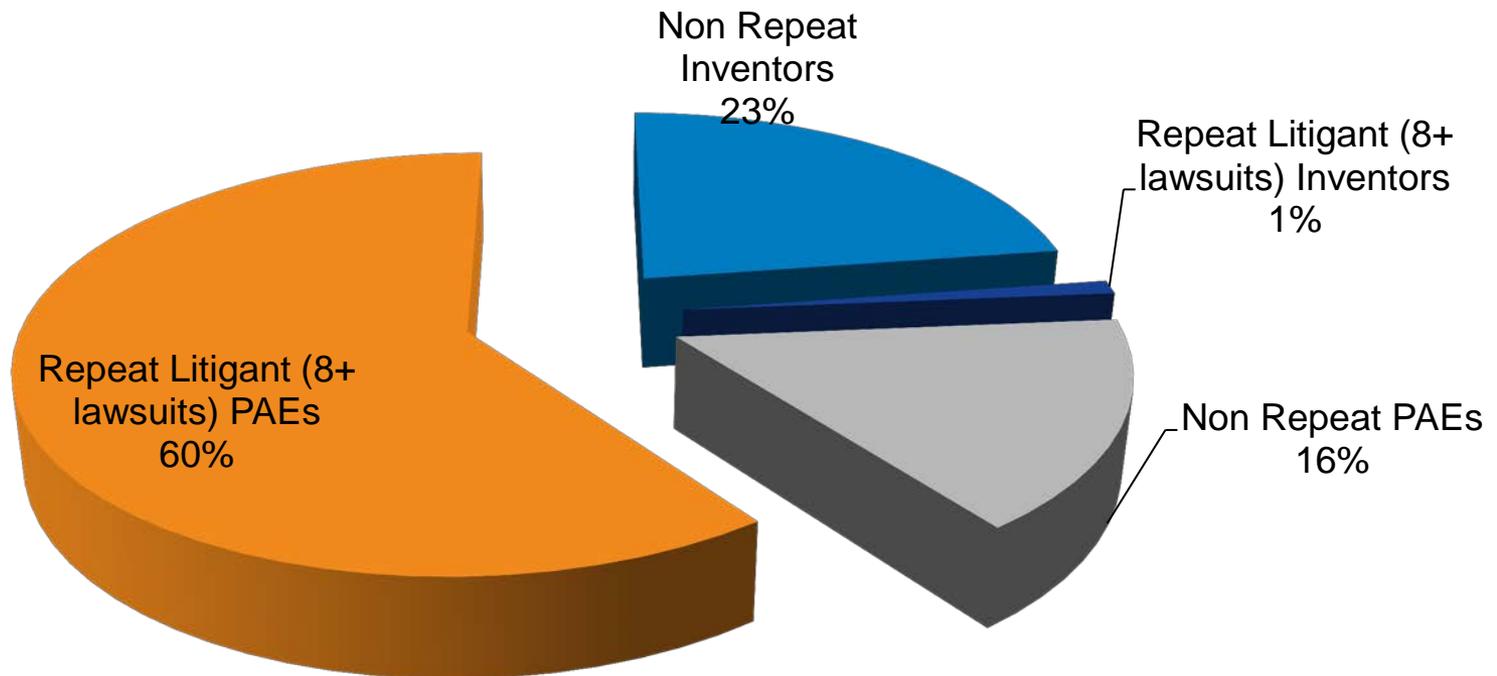
Note: NPE litigations for relevant market sectors including: consumer electronics and PCs, e-commerce and software, financial services, media content and distribution, mobile communications and devices networking and semiconductors. NPE, NCE, INV and university suits included

Source: RPX Corporation (c) 2011. Data based on NPE transactions from Jan 2010 to March 2011

PAEs are increasing the velocity of transfers between buyers and sellers of patent rights

Repeat litigants dominate these transfers. 61% of defendants were sued by a PAE who had sued 8+ times.

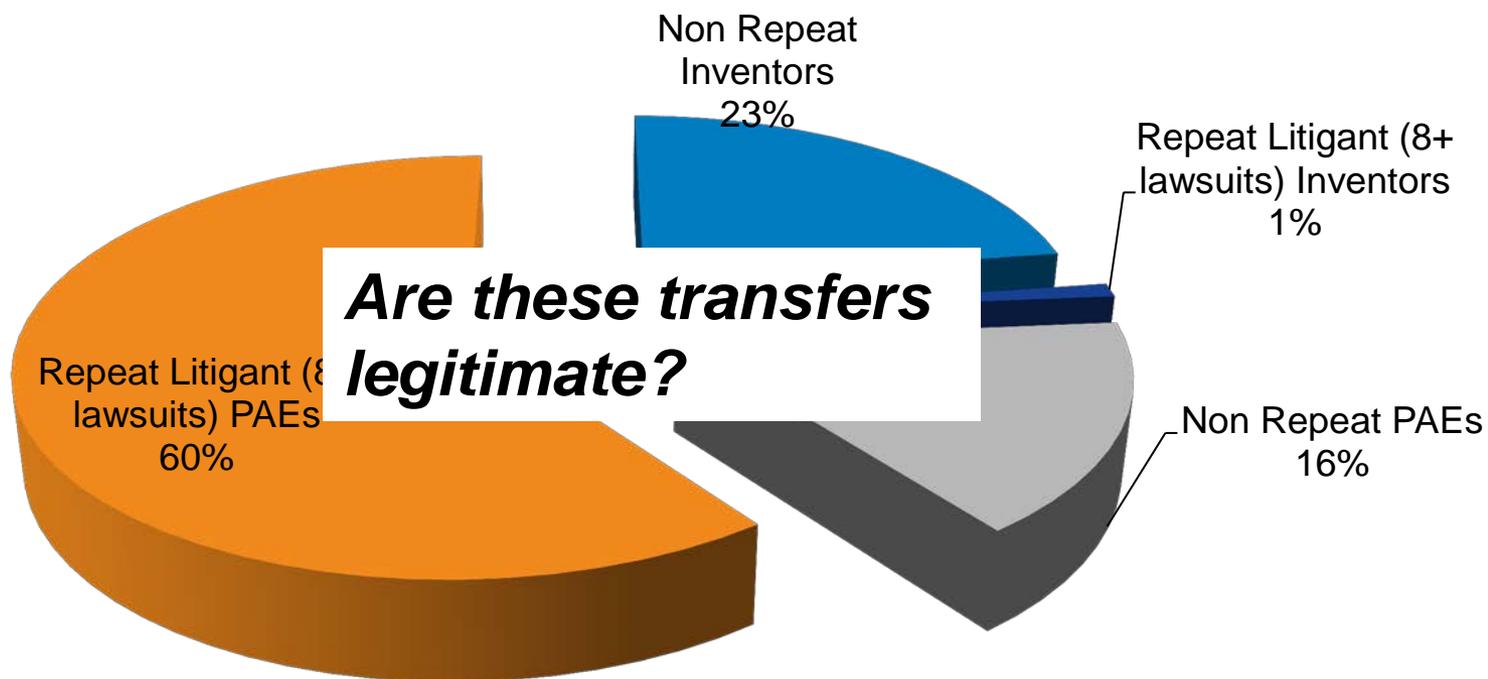
PAE Plaintiff Type by Number of Defendants Named: Jan 1, 2011 – Dec 1, 2012



Repeat Litigant PAEs have named more than 15 defendants in more than 7 suit, Aggressive Repeating Inventors have named more than 15 defendants in more than 7 suit

Allison et al 2011 found that the most asserted software patents (8+ cases) – lose in court roughly 90% of the time

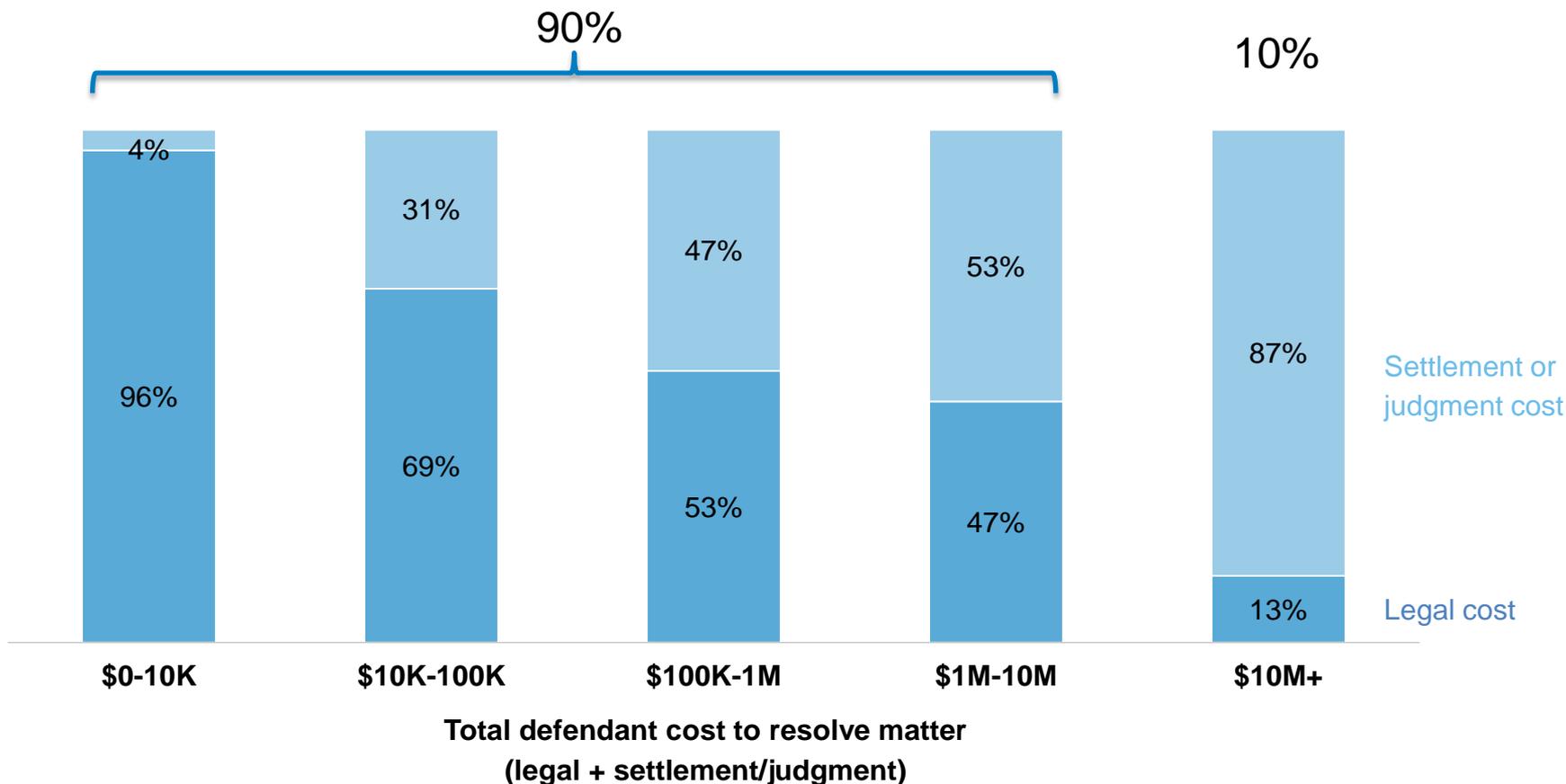
PAE Plaintiff Type by Number of Defendants Named: Jan 1, 2011 – Dec 1, 2012



Repeat Litigant PAEs have named more than 15 defendants in more than 7 suit, Aggressive Repeating Inventors have named more than 15 defendants in more than 7 suit

How efficient are the transfers between buyers and sellers of technology? (survey data)

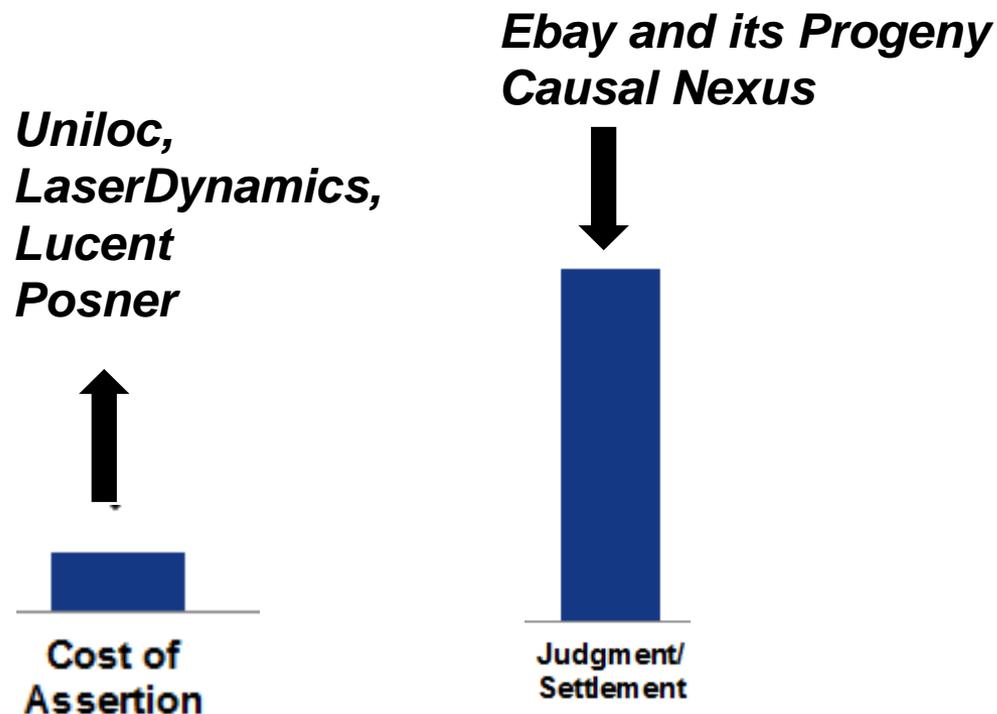
Based on 900 litigations, in the majority of them, the legal costs exceed the settlement



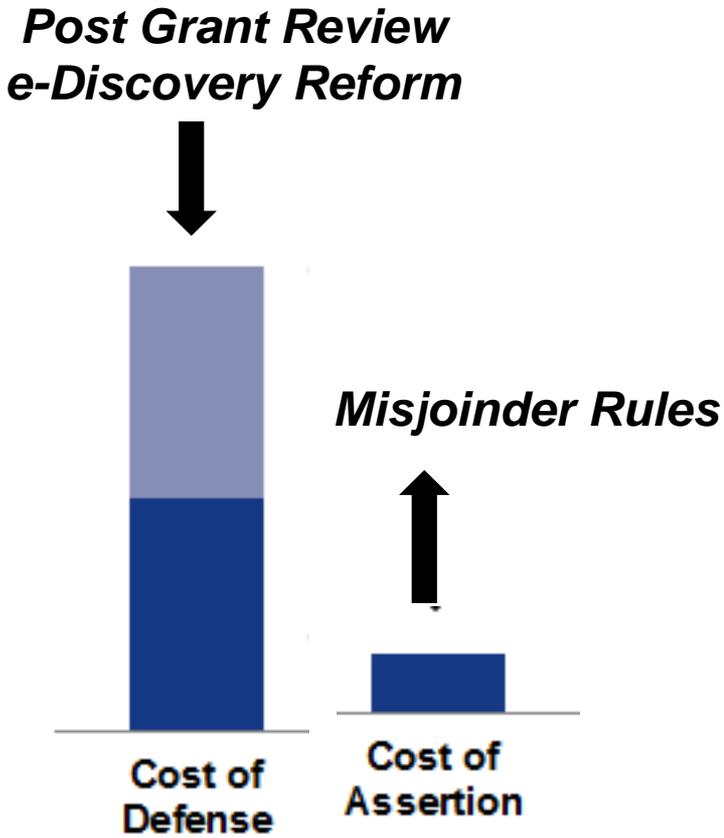
RPX Survey of 78 companies with 900 resolved NPE litigations. Legal cost includes outside counsel (lead, local, and re-exam), experts, discovery, prior art searching, jury consultants, graphics, and other related costs. Excludes in-house legal costs. Settlement and judgment costs may include the estimated present value of running royalties. NPEs include PAEs (Patent assertion entities believed to earn revenue predominantly through licensing of patents), universities and research institutions, individual inventors, and select operating companies asserting patents well outside their area of product or services. The very vast majority of the data underlying this analysis reflects litigation with PAEs.

What reforms are possible?

Non-ITC Judicial remedies reforms have reduced the injunction rate and made proving damages more expensive



Other reforms are aimed at reducing the cost of defense and increasing the cost of assertion



One-way fee shifting could dramatically change courtroom economics and contingent representation

Fee-Shifting



But the past has shown it to be less useful against:

- Repeat players (but most PAEs are)
- Judgment proof parties (but many PAEs are)
- Cases that don't go to judgment (only 5% of cases do)

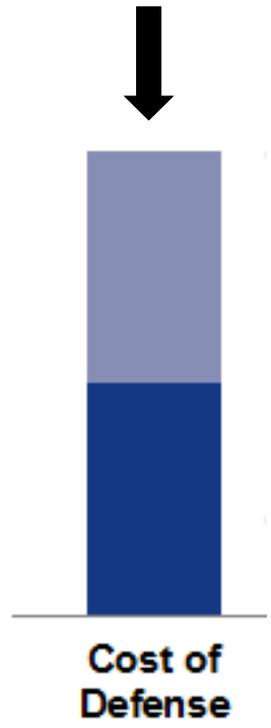
Also, need to worry about presuit dynamic

What is the Ratio of Demands to Suits?

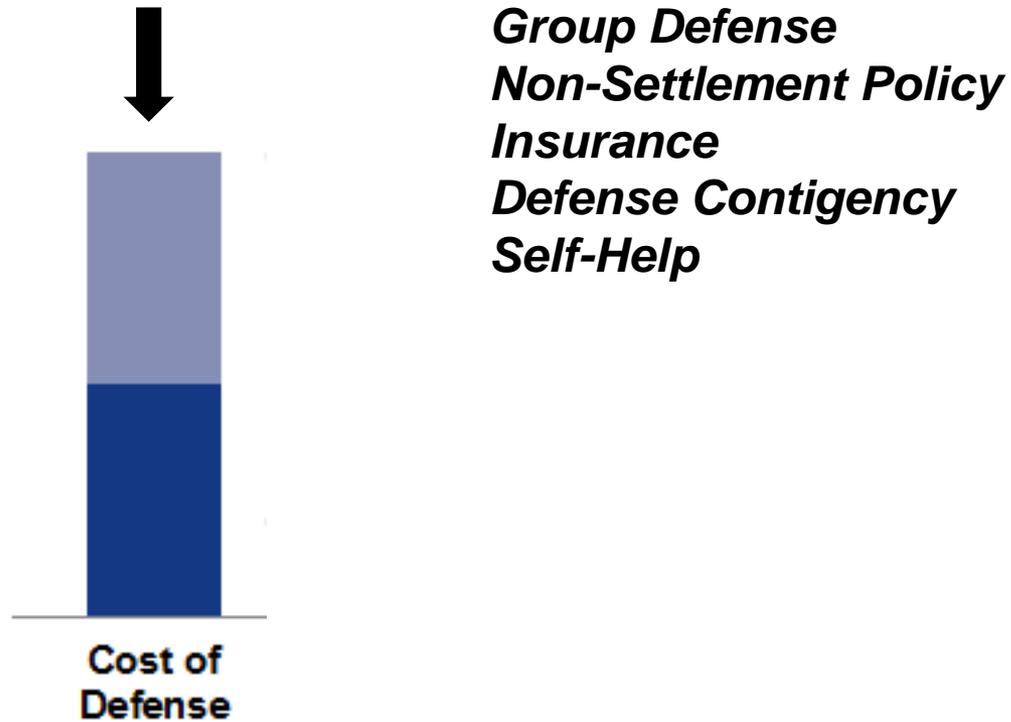
100:1 – estimate of high end sell-side patent broker

307:1 – Cisco et al v. Innovatio, Case No. 1:11-cv-09308, Lex Machina (8,000+ letters, 26 cases)

What about market-based ways of reducing the cost of defense?



What about market-based ways of reducing the cost of defense?



What about market-based ways of reducing the cost of defense?



Group Defense
Non-Settlement Policy
Insurance
Defense Contingency
Self-Help

Forbes | **New Posts** (+2 posts this hour) | **Most Popular** (Hollywood's Most Overpaid) | **Lists** (Most Powerful People)

TECH | 8/09/2011 @ 11:37PM | 11,087 views

Turn The Tables On Patent Trolls

Eric Savitz, Forbes Staff

9 comments, 1 called-out | [+ Comment now](#)

Written by Colleen V. Chien

The patent system has received a lot of attention recently, and not the good kind. Recent pieces have called patent enforcers “modern-day robber barons” and their investors “[suckers](#).” They vilify those who don’t make anything and use patents to sue those that do – patent “trolls” – and leave the reader wondering: how can this be, and what can be done?



Colleen Chien: Fight

The answer is quite a bit: Critics and companies sued by

These approaches have been used before

In the late 1880s, railroads, under patent attack in a manner similar to tech companies today formed Associations that mounted...

Railroads, Inventors, and the Diffusion of Innovation 1065

common defenses in patent suits and monitor all issues relating to patents in the industry.⁵⁸ About a dozen major eastern roads agreed to form an identical organization—the ERA—the same year.⁵⁹ Lines would pay annual fees, assessed in proportion to earnings, and in return receive full legal services, including consultation on the legal status of all inventions. Members agreed to provide any information regarding disputed technologies and to inform the associations of inventions developed in their own shops. Any member who reached a settlement with an individual currently bringing suit against another member would sacrifice its rights to defense by the association.⁶⁰

Steve Usselman, Patents Purloined 1991

See also Chien, Reforming Software Patents 2012

It worked! (combine and overcome v. divide and conquer)

engineers,” as the court put it.

Facing such united opposition, inventors seldom pressed forward with litigation. Indeed, aside from the brake cases, virtually no patent disputes went to trial. “During the last three years,” reported the secretary of the ERA in 1887, “only four suits for infringement of patents have been brought against our members,” and all but one was “unimportant, commenced by the patentees themselves, and of a local nature.”⁷⁸ By then, the associations had long since come to function more as advisers than litigators. With access to so much information, their lawyers could readily advise railroads on how to innovate without encountering patents or how to avoid paying large fees for technologies covered by patents. The files of the B&O and the CB&Q contain numerous examples of their work in this regard.⁷⁹

Steve Usselman, Patents Purloined 1991

See also Chien, Reforming Software Patents 2012

The competition authorities had a role

Perhaps the best testimony to the effectiveness of the pools came from the reactions of inventors. Never an easy group to organize, inventors banded together to fight the patent associations. A group known as the Inventors Protective Agency formed in the early 1880s to counter the legislative efforts of the railroads.⁸⁹ Later, the group challenged the legality of the railroad associations, without success. Courts upheld the rights of railroads to combine in their defenses in patent cases, and Congress twice rejected petitions that would have declared the ERA and WRA in violation of the antitrust laws.⁹⁰

So, where does that leave us?

4. Monitoring/Research Agenda

***“To understand
God's thoughts we
must study
statistics”***

***-Florence
Nightingale***

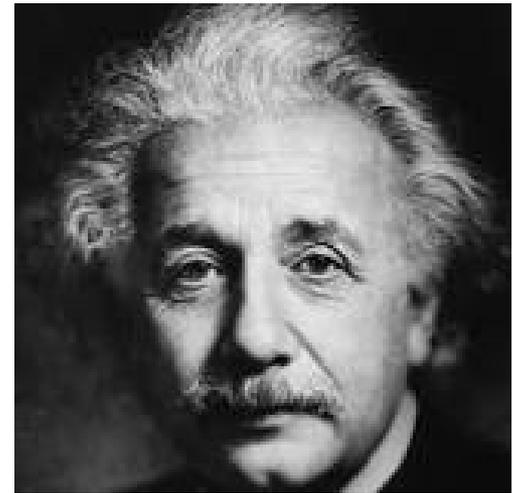


More research is needed to understand the positive and negative impacts

- ▶ What have small companies done with the money? (What cut did they get?)**
- ▶ What is the nature of the negative impacts?**
- ▶ What has been the impact on innovation**

Qualitative, quantitative, and historical approaches could all be useful

“Everything that can be counted does not necessarily count; everything that counts cannot necessarily be counted.”



Comprehensive Case Studies
Monitor movements in the market
See if legal/market reforms work

Thank you! References and Contact Information

Of Trolls, Davids, N.C. Law. Rev. (2009)

From Arms Race to Marketplace, Hastings Law Rev (2010)

Reforming Software Patents, Hous. Law Rev. (2012) (draft)

Startups and Patent Trolls (2012) (draft)

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