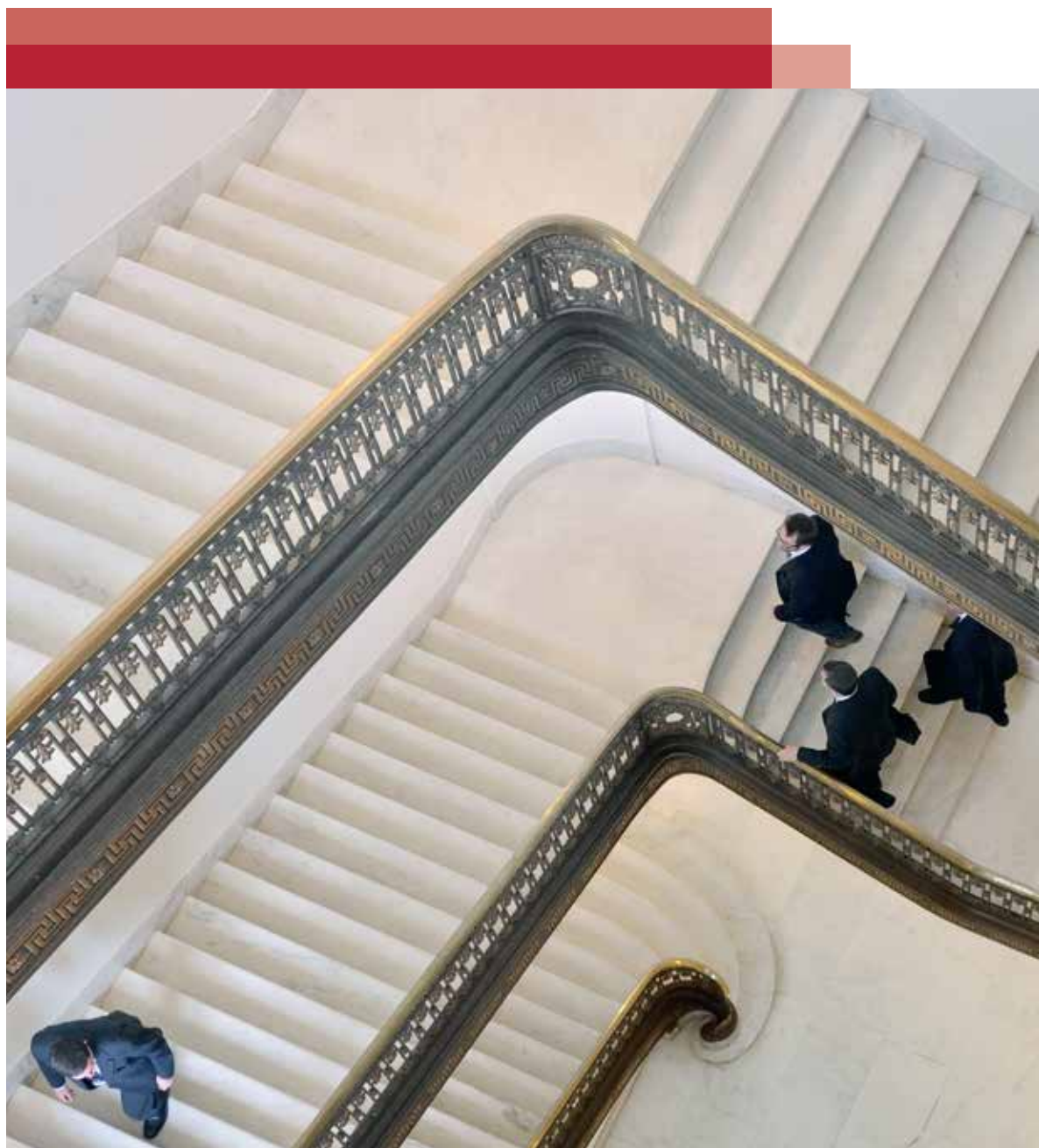

EXHIBIT E

2016 Patent Litigation Study

Are we at an inflection point?

May 2016



General trends

General Patent Litigation trends

- Patents granted decline for first time since 2008
- Median damages surged to \$7.3M in last 5 years
- Patentee success rate stands at 33%
- Median jury award was over 16x greater than median bench award in last 5 years
- Time to trial edged up to 2.5 years
- Increased likelihood of fee shifting following two 2014 Supreme Court decisions

Patents granted
decline for
first time



since **2008**

Median damages award bounces back in '15

- 2015 annual damages award (\$10.2M) at highest point in 10 years
- One mega verdict in 2015, for \$533M

Median damages award at **highest** point in

10 years



Industry and district view

- Consumer products still leads in number of cases; biotech/pharma has highest median damages awards
- Forum shopping matters: Top 5 most favorable districts with patent holders remain the same (DE; TX Eastern; VA Eastern; WI Western; FL Middle)

**Biotech/
pharma**
highest **median**
damages awards



Nonpracticing Entities (NPEs) still carry a big stick

- Damages awards for NPEs almost 3x greater than practicing entities over the last 5 years
- NPE cases concentrated: 5 district courts (of 94) account for 45% of all identified NPE decisions

Damages awards are almost **3x** greater for NPEs



It's not over 'til it's over: Appeals rule

- 80% of district court decisions are appealed
- 53% of appealed decisions are modified in some regard
- Three patent cases escalated to Supreme Court in 2015

53% of appealed cases are **modified** in some regard



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Overview

First **decline** in patents granted since



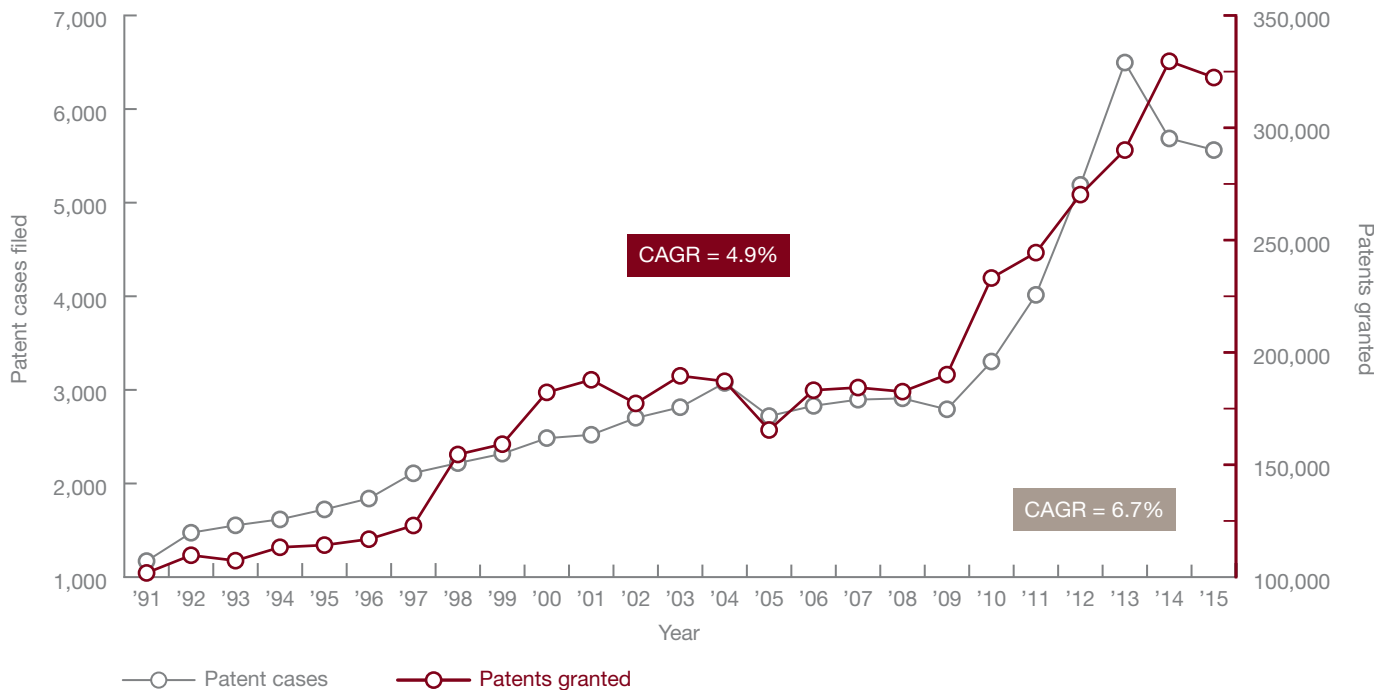
Patent litigation and grants decrease modestly

The number of patent cases filed declined again in 2015, continuing a downward trend from the high point reached in 2013. Approximately 5,600 cases were filed in 2015—representing a modest year-over-year drop of 2%. The decline in the number of cases over the last two years stands in contrast to the compound annual growth rate (CAGR) since 1991 of 6.7%.

2015 also showed a 2% decrease in patents granted by the United States Patent and Trademark Office, the first decline in grants since 2008.

The decline in the number of patent cases filed and patents granted is likely driven by various factors—one being the Supreme Court’s 2014 decision in *Alice Corp. v. CLS Bank*, which significantly impacted the ability to obtain and assert software patents.

Fig 1: Patent case filings and grants



Years are based on September year-end.

Sources: Performance & Accountability Report (USPTO) and Judicial Facts and Figures (US Courts)

Top damages awarded

Large damages awards grab headlines. Since 2012—when three awards of \$1 billion or more broke into the top ten list—no award has even come close. 2015 did see one case, *Smartflash LLC v. Apple Inc.*, land in the top 10 list with a \$533 million award related to media storage technology.

In another notable case, *Apple v. Samsung*, the parties agreed to settle for \$548 million, despite ongoing appeals and patent office actions on certain Apple patents. In early 2016, the Supreme Court granted certiorari on the issue of whether design patents should be entitled to disgorgement of a defendant’s profits without apportionment.

The table below displays the top ten initial damages awards since 1996. It is important to note that the awards reflected in this table are those identified during initial trial—all have since been vacated, remanded or reduced, were

settled while pending appeal, or are still under appeal. In some cases, the settlement value exceeded the original trial verdict.

Trier of fact

The turn of the century brought a sea change in the trier of fact in patent cases. Previously, jury trials were the exception. However, since 2000, jury trials have predominated. In the last five years, the percentage of cases decided by a jury reached 75%, excluding Abbreviated New Drug Application (ANDA)-related litigation.¹

Fig 3: Percent of cases decided by juries (excluding ANDA cases)

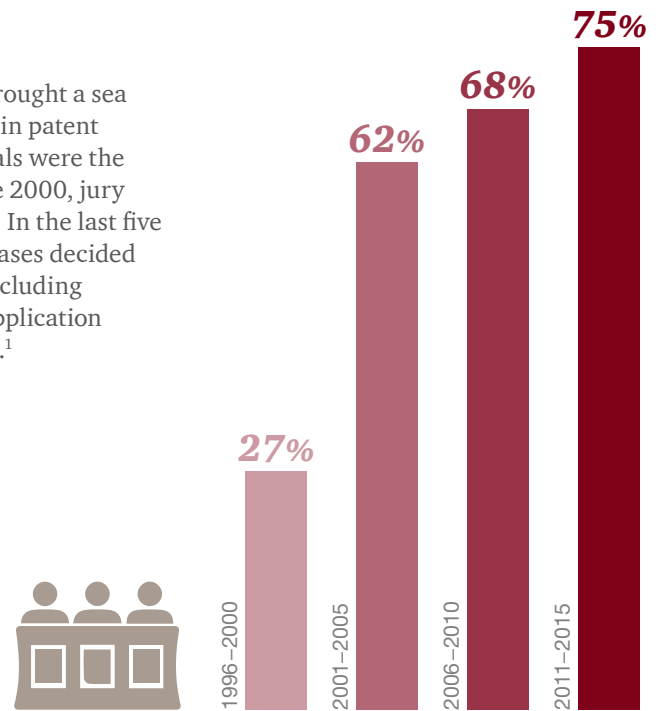


Fig 2: Top ten largest initial adjudicated damages awards: 1996–2015

Year	Plaintiff	Defendant	Technology	Award (in \$M)
2009	Centocor Ortho Biotech Inc.	Abbott Laboratories	Arthritis drugs	\$1,673
2007	Lucent Technologies Inc.	Microsoft Corp.	MP3 technology	\$1,538
2012	Carnegie Mellon University	Marvell Technology Group	Noise reduction on circuits for disk drives	\$1,169
2012	Apple Inc.	Samsung Electronics Co.	Smartphone software	\$1,049
2012	Monsanto Company	E. I. du Pont de Nemours and Co.	Genetically modified soybean seeds	\$1,000
2005	Cordis Corp.	Medtronic Vascular, Inc.	Vascular stents	\$595
2015	Smartflash LLC	Apple Inc.	Media storage	\$533
2004	Eolas Technologies Inc.	Microsoft Corp.	Internet browser	\$521
2011	Bruce N. Saffran, M.D.	Johnson & Johnson	Drug-eluting stents	\$482
2014	Masimo Corporation	Philips Electronics N. America Corp.	Device measuring blood oxygen levels	\$467

¹ These cases are, with rare exceptions, tried by the bench, and their increasing prevalence in recent years would otherwise skew this measure.

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