

2015 Report

NPE Litigation, Patent Marketplace, and NPE Cost

High-level Findings

RPX presents its annual NPE Litigation, Patent Marketplace, and NPE Cost reports for 2015 as one comprehensive reference guide to the state of the patent ecosystem. Given the many connections between findings across each area, this collective view through all three lenses offers the most accurate depiction of that landscape. Our Summary of Observations (page 5) highlights the most important of these connections across each area. By centralizing our viewpoint, we hope to illuminate important context that might otherwise be obscured.

The merit of this approach is evident, in particular, when considering three of the metrics that observers of the patent market watch most keenly: litigation volume, the pace of pre-litigation patent offerings, and cost of NPE litigation to industry. In 2015, NPE litigation volume re-stabilized, up 28% from 2014. And pre-litigation patent offerings held steady. Taken alone, the two points would suggest little if no lasting change in the patent landscape.

But new data also suggest that the cost of NPE litigation in 2015—especially for certain types of cases—is down from 2014, indicating that NPEs are facing some headwinds. When used properly, new patent validity challenges before the Patent Trial and Appeal Board (PTAB)—a byproduct of the 2011 America Invents Act (AIA)—can be less expensive and as effective as such challenges in district court. Likewise, in the two years following the Supreme Court's decision in *Alice Corp. v. CLS Bank International*, the success rate of patent eligibility attacks in district courts almost certainly accounts for some of the overall reduction in litigation cost.

An Evolving Landscape

The takeaway from these and other data in the report is that NPEs are persisting, notwithstanding challenges forcing them to adjust their strategies in a post-reform world. That said, the pendulum might swing back: over the past three years, the PTAB's rate of instituting petitions challenging patent validity has declined, following an initial burst out of the gates. And while it is too soon to identify whether any post-*Alice* pendulum effect is developing, we are beginning to see courts indicate some worry about overzealous application of the case.

The takeaway from these and other data in the report is that NPEs are persisting, notwithstanding challenges that force them to adjust their strategies in a post-reform world.

While our 2015 reporting indicates some evolution in the patent landscape itself (though somewhat limited to the lower end of the market and to certain sectors), our data also reflect significant progress in RPX's pursuit of transparency in this chronically opaque marketplace. This year's cost estimates are our most precise yet—the result of an expanded data set and increasingly sophisticated analysis. As always, we have revised historical estimates based on these gains. In the case of overall cost to industry, this revision has resulted in a downward adjustment to industry cost estimates that we have published in the past. Where we had estimated that NPE litigation costs industry in the range of \$10 billion or more in direct expenses annually, we now estimate that number to be \$7 - 9 billion.

Two factors—new data and refinements to methodology—account for the difference. In our continual collection of data, many of the new survey responses from both new and existing participants reflect lower costs per case. And we use all data, cumulatively, to calculate per-case costs—projecting those costs onto the NPE litigation volumes for each year to reach our estimate. This means any fluctuation will be reflected across both present and historical estimates for annual litigation cost.

Regarding methodology, RPX has changed its calculation of litigation volume within the cost estimate. We now use a less traditional but, in our view, more accurate measure of activity: counting defendants in litigation campaigns—essentially, groups of cases brought by the same plaintiff over the same patents—rather than counting their individual cases. We find that this campaign methodology more closely aligns with the way companies count their own litigations and reduces duplication inherent in raw litigation data.

Progress

RPX will continually revisit and refine its methodology and analysis—an imperative, given the fiscal challenges and systemic imbalances that persist in patent litigation, and given the role that market intelligence and transparency play in correcting those issues. While policy and judicial action can move the needle to a degree, NPEs have demonstrated both tenacity and adaptability. The practical reality is that NPE litigation continues to cut deeply into the bottom lines of thousands of companies, to shrink research and development budgets, and to impact funding from investors—sometimes fatally.

In our fourth year of reporting, RPX continues to level this asymmetric playing field, establishing a platform and clearinghouse of market intelligence that all parties can use to transact patents based on credible valuation, not the threat of litigation. This goal of accuracy and transparency underpins our mission. While other observers and participants in the market necessarily have a stake in what the data in this report show, RPX remains focused on its third-party role of striving for the exactitude required for sound decision-making in the exchange of patent assets.

The 2015 NPE Litigation, Patent Marketplace, and NPE Cost Report is a product of this commitment, providing all those affected by NPE risk access to clear, centralized information available nowhere else.

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NPE Litigation

- NPE litigation volume in 2015 surpassed 2014 by cases filed and defendants added (Chart 3, Litigation), with periods of volatility surrounding newsworthy judicial and legislative events (Chart 12, Litigation). NPEs remained the primary source of patent litigation activity, accounting for more than 60% of defendants added for the sixth straight year (Charts 2 and 10, Litigation).
- First-time defendants shouldered the brunt of the action (Charts 5 and 6, Litigation). And smaller companies—those with less than \$100 million in revenue—again accounted for over 60% of the unique NPE defendants added.
- The early, fast growth in the popularity of IPR and CBM petitions appears to be leveling off, with filing rates from second quarter of 2014 onward remaining relatively steady at roughly 400 – 500 petitions. Success rates also have declined, with the quarterly institution rate dropping from an early high of 92% in Q1 2013 to 67% in Q4 2015 (Charts 22 – 31, Litigation).
- The Eastern District of Texas took its largest share of NPE volume (64%) since at least 2009, with Delaware a distant second (6%). The remaining 30% of NPE litigation volume was spread almost evenly throughout the dozens of other federal districts (Charts 36 and 37, Litigation).
- NPE litigation in the International Trade Commission (ITC) continued to decline after a brief spike in 2011 (Chart 18, Litigation).

Patent Marketplace

- A steady volume of portfolios has been offered to RPX in the last five years, but the number of patents offered to RPX in the last three (and thus, the average portfolio size) has markedly increased (Charts 1, 2, and 3, Patent Marketplace).
- RPX continues to see a mix of technology offerings. The largest contributor by portfolios offered is E-commerce and Software (23.4%). By patents, it is Semiconductors (30.1%) (Charts 4 and 5, Patent Marketplace).
- Median initial asking prices have remained stable, though the average fluctuates quarter to quarter. Trends in the median asking prices vary when viewed at the sector level (Chart 6 and Charts 19-39, Patent Marketplace).
- Most portfolios still transact within six months to one year of their offer date. For more recent offerings, the average transaction latency is shorter (Charts 14 and 15, Patent Marketplace).

NPE Cost

- RPX estimates that NPEs cost operating companies \$7.4 billion in 2015—lower than historical costs. This is unsurprising: new legal tools (*Alice*, IPRs) are giving defendants more effective means to combat low-quality assertions rather than settle at a nuisance payment. That said, the more credible assertions are less vulnerable to such attacks, and thus, the higher end of the market remains a persistent threat (Chart 1, Cost).
- One of the primary costs to operating companies of all NPE activity is the cost of mounting a legal defense against NPE suits. For suits costing between \$100 thousand and \$1 million to resolve, 57% of that cost was legal and 43% was settlement or judgment payments to NPEs (Chart 3, Cost).
- Litigation remains the largest portion of direct NPE costs. That said, other costs are significant, especially for larger companies; they tend to spend relatively more on non-litigation assertions and validity challenges (Chart 2, Cost).
- IPR petition costs are generally in the six figures: \$200 thousand on the low end, and \$700 thousand on the high end, for those that reach a final decision. Much (40 – 60%) of that total cost is incurred in the first six months between filing the petition and institution. The range of costs to file a petition are fairly narrow, but there is a wide range costs for petitions that go to final decision (Charts 6 and 7, Cost).
- Average legal and settlement costs naturally increase as a case progresses, even doubling or tripling at key events in the litigation sequence (Charts 5A, 5B, and 5C).

NPE Litigation

Key 2015 Findings

NPEs Persist

- NPE litigation volume in 2015 surpassed 2014 by cases filed and defendants added. NPEs added slightly more than the five-year historical average number of defendants to their 2015 campaigns (Charts 1, 3, and 9).
- Litigation activity was volatile: in the most active weeks, NPEs sued two to three times the 2015 weekly median number of defendants. This is likely due in part to recurring legislative activity and newsworthy judicial events that drove short-term surges in NPE filings (Chart 12).
- First-time defendants continued to account for over half of the unique defendants sued by NPEs each year (Charts 5 and 6).

PAEs Still Dominate

NPEs remained the primary source of litigation activity, accounting for more than 60% of defendants added for the sixth straight year (Charts 2 and 10). PAEs remained the most dominant archetype, accounting for 96% of the defendants added across all NPE campaigns (Chart 16).

Short Campaigns

Most defendants terminated from an NPE campaign in 2015 were out within one year of being added to it, and 42% were out within six months. This accounts in part for continued reduction in 2015 of the NPE litigation backlog (-13%) (Charts 11 and 13).

New NPEs

New NPEs made up 48% of all unique NPEs filing suit in 2015—a slight increase of their share over past years (Chart 17).

Chart 1: Patent Cases Filed

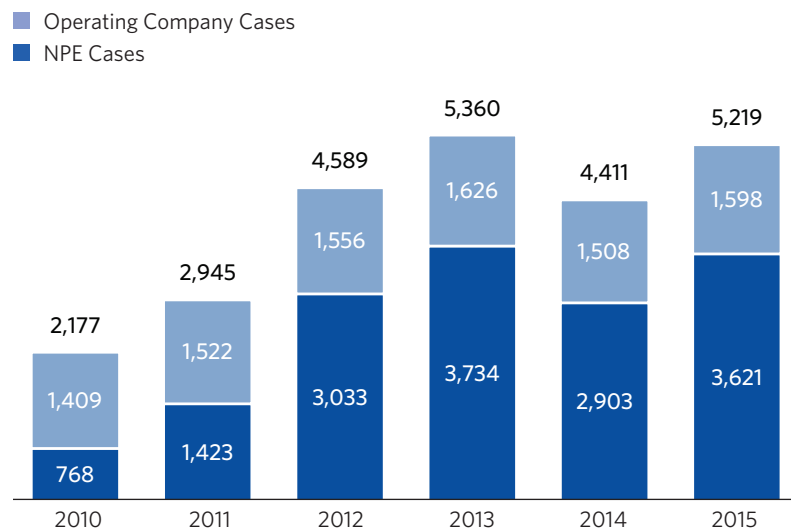
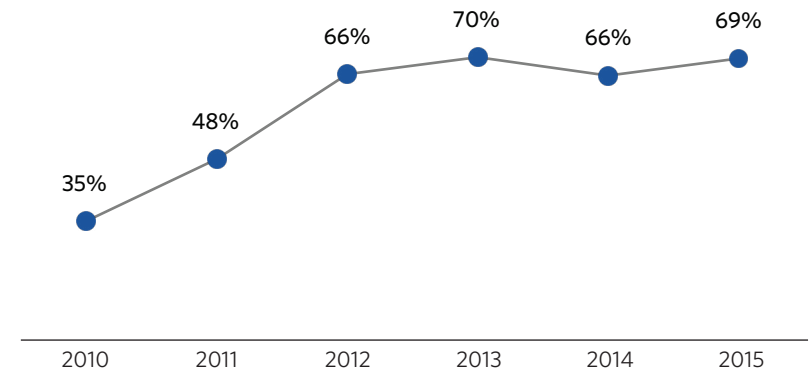


Chart 2: NPE Cases Filed as Percentage of All Patent Infringement Cases Filed



Litigation Volume

Chart 3: Total Defendants Added in Cases

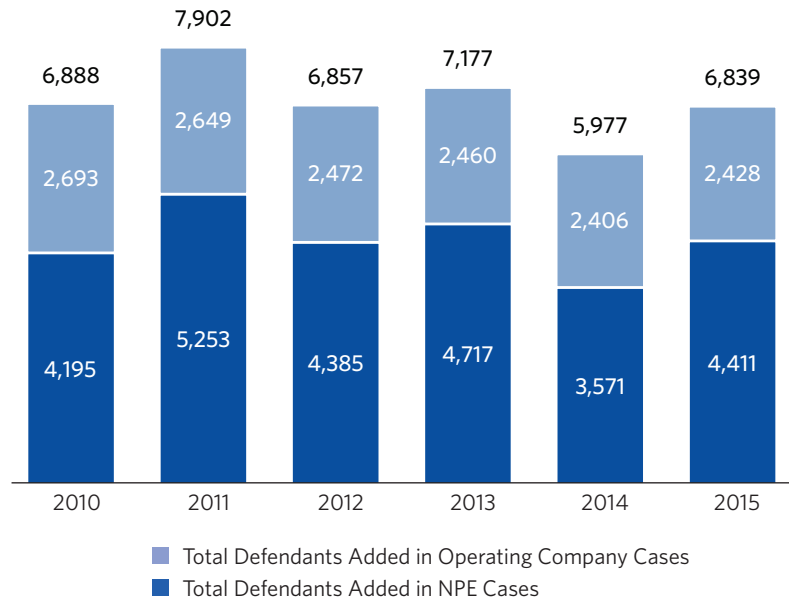


Chart 4: Total NPE Defendants Added as Percentage of Total Patent Infringement Defendants Added

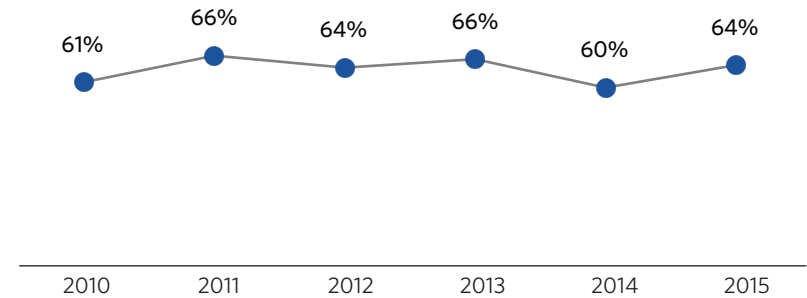


Chart 5: Unique Defendants

Note: Unique counts are not additive.

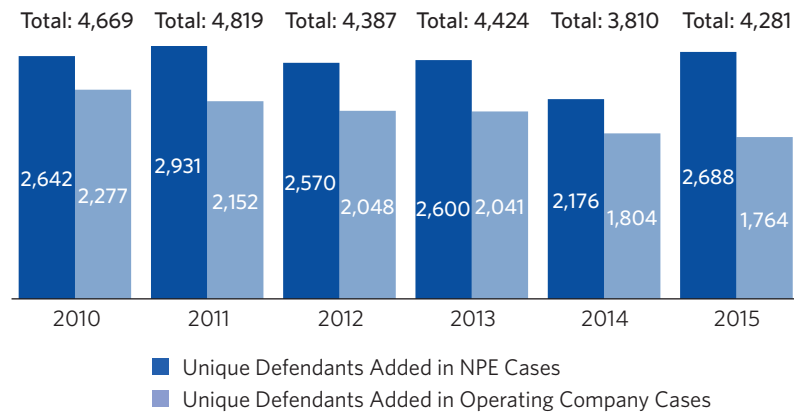
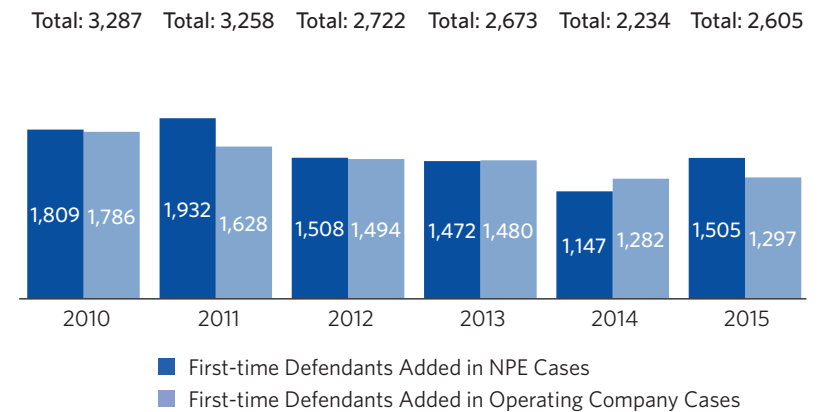


Chart 6: First-time Defendants

Note: Unique counts are not additive.



Litigation Volume

Chart 7: New Campaigns Filed

Methodology Note:

The campaign calculation is defined in the Methodology section.

- New Operating Company Campaigns
- New NPE Campaigns

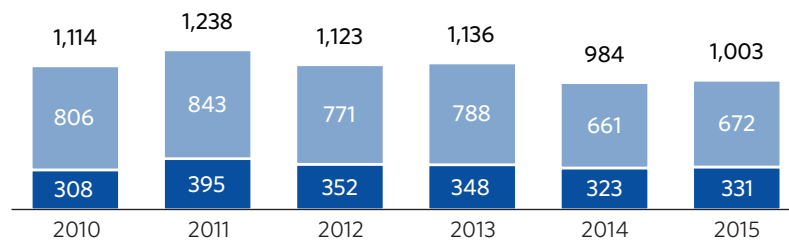


Chart 8: NPE Campaigns Filed as Percentage of All Patent Infringement Campaigns Filed

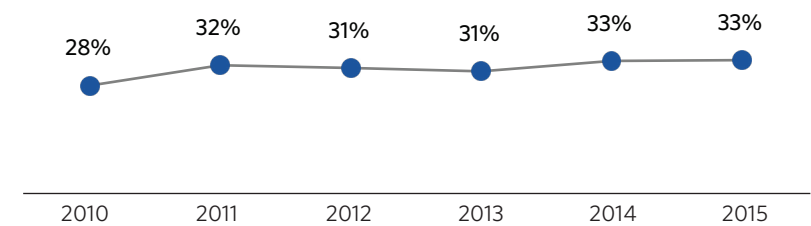


Chart 9: Total Defendants Added in Campaigns

- Total Defendants Added in Operating Company Campaigns
- Total Defendants Added in NPE Campaigns

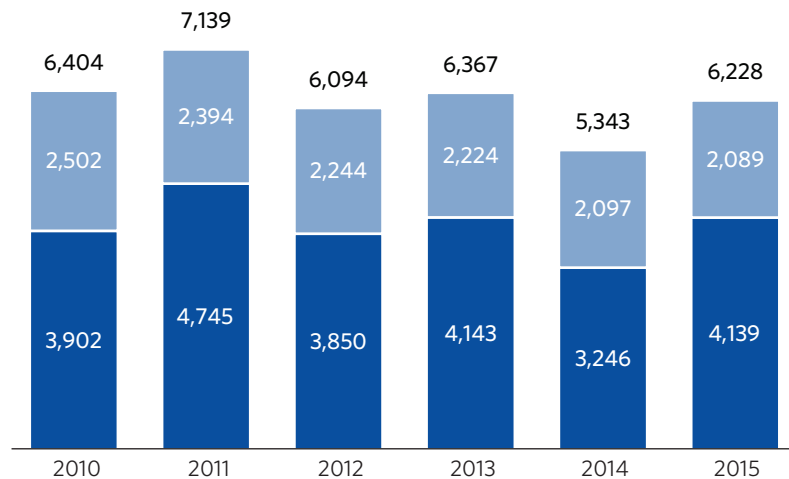
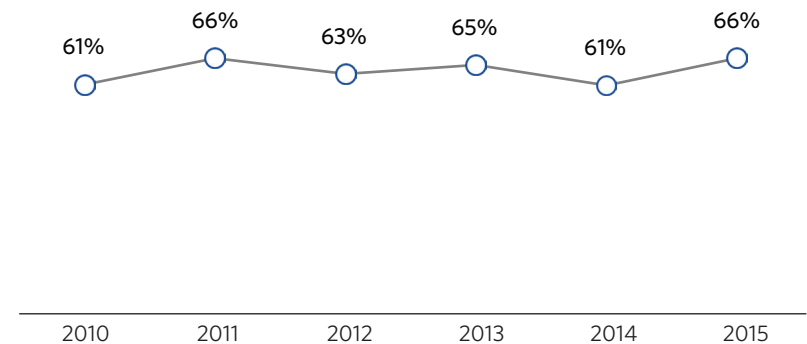


Chart 10: Total NPE Campaign Defendants Added as Percentage of Total Patent Infringement Defendants Added



Litigation Volume

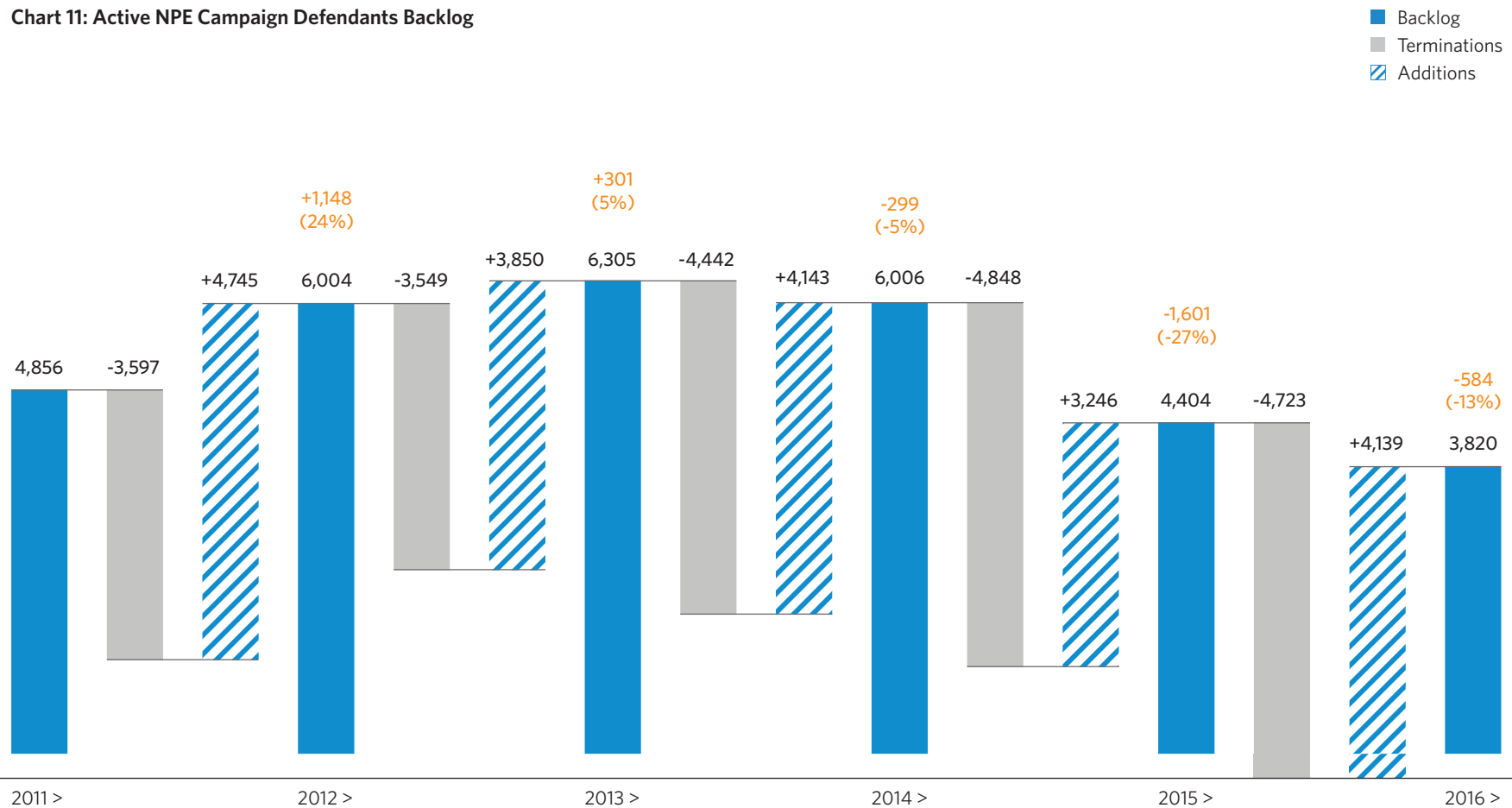
Backlog of Active NPE Defendants Decreased

The estimated backlog of NPE cases continued to decrease, despite the uptick in litigation volume over 2014. This is because the number of terminations exceeded the number of new additions in 2015. Sixty-two percent of the defendants terminated in 2015 were out within one year of the original filing date (Chart 13); some of these, though not all, were added to litigation in 2015 and then out again before 2015 was over.

Methodology Note:

“Active NPE Campaign Defendants” is the total number of NPE campaign/active defendant pairings. “Backlog” refers to the number of all active NPE defendants at the beginning of the year shown. “Terminations” and “Additions” respectively refer to defendants terminated or added at any time during that same year. For example, 2013 began with 6,305 active defendants. In the rest of 2013, 4,143 new defendants were added, while 4,442 defendants were terminated—some from the backlog, some new—for a net change of -299 defendants by the start of 2014.

Chart 11: Active NPE Campaign Defendants Backlog



Litigation Volume

Defendant Additions Were Volatile Again During 2015

4,139 total defendants and 2,688 unique defendants were added to NPE campaigns in 2015. Much like in 2014, the rate at which these defendants were added varied significantly throughout the year. NPE activity spiked in tandem with newsworthy amendments to the Federal Rules of Civil Procedure. In the weeks leading up to the effective date of the new Rules (November 23rd, 30th), the number of defendants sued by NPEs exceeded the median weekly total (77.5) by more than two to three times.

Patent Reform

Congress introduced three major bills to reform patent law: the Innovation Act (1), the Strong Patents Act (2), and the Patent Act (3). The Senate and the House approved the Patent Act (4) and the Innovation Act (5) out of committee. The bills never reached the floor for debate.

Supreme Court Cases

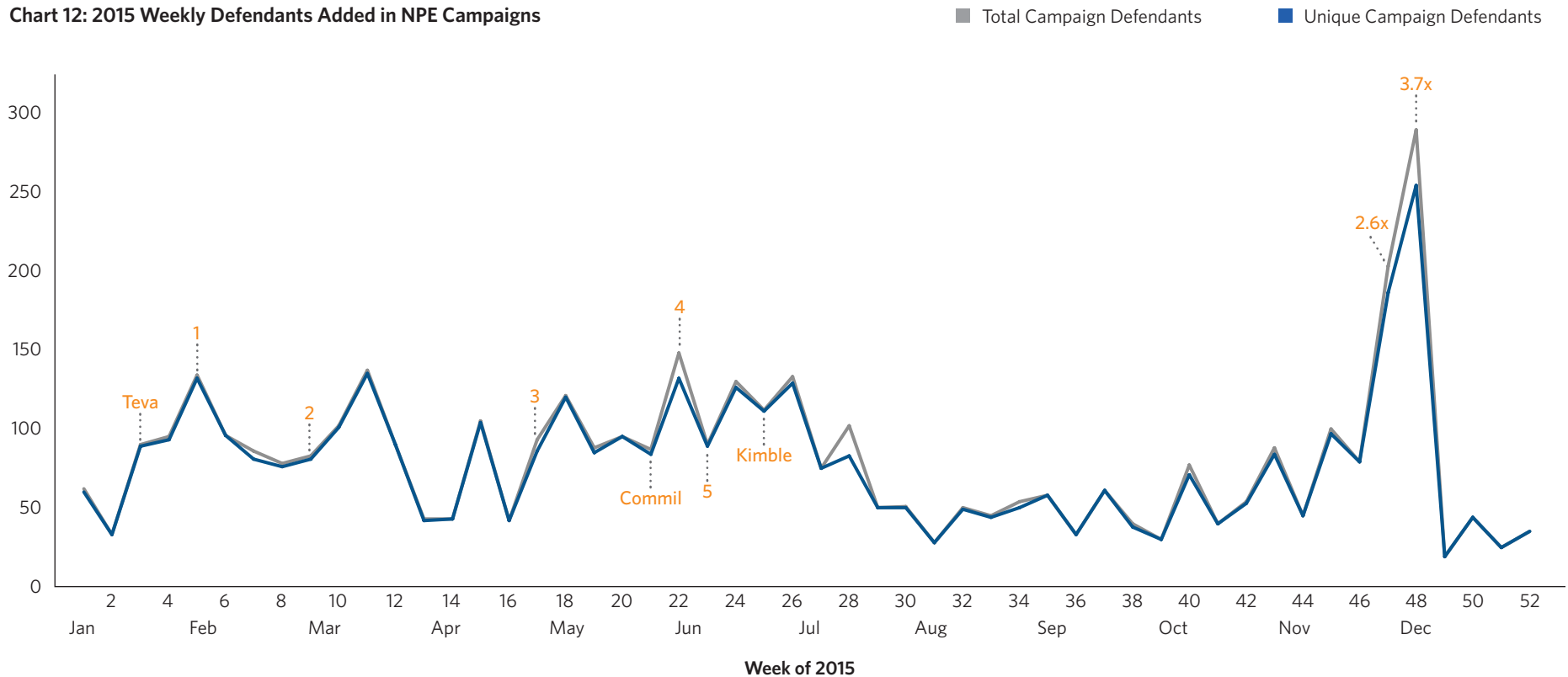
The Supreme Court continued to scrutinize patent cases, deciding appeals in *Teva v. Sandoz*, *Commil v. Cisco*, and *Kimble v. Marvel*. While less impactful than some of the 2014 decisions, these cases still reflect the judiciary's increased focus on patent law.

New FRCP

The new Federal Rules of Civil Procedure became effective on December 1st (week 48, day 2). The Judicial Conference's changes eliminated form pleading (including Form 18 for patent cases) and changed case timing and discovery rules in an effort to streamline litigation. Plaintiffs rushed to the courthouse in the weeks leading up to the effective date, reaching 2.6 and 3.7 times the weekly median number of defendants added.

Note: Weekly unique counts are not additive to the yearly total.

Chart 12: 2015 Weekly Defendants Added in NPE Campaigns



Litigation Volume

Chart 13: Duration of Litigation for NPE Campaign Defendants Terminated in 2015

N = 4,723

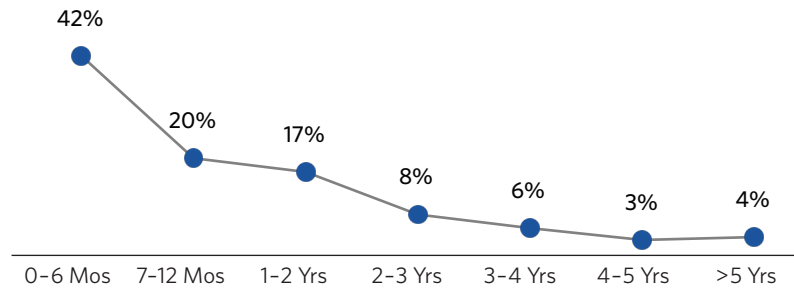
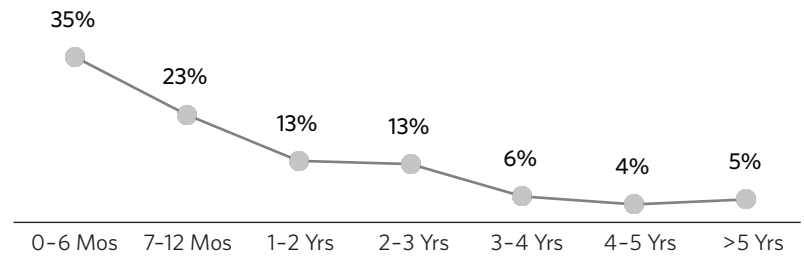


Chart 14: Duration of Litigation for NPE Campaign Defendants Active at Year-end 2015

N = 3,820



Litigation Volume

Chart 15: NPE Campaigns Filed in 2015 by NPE Type

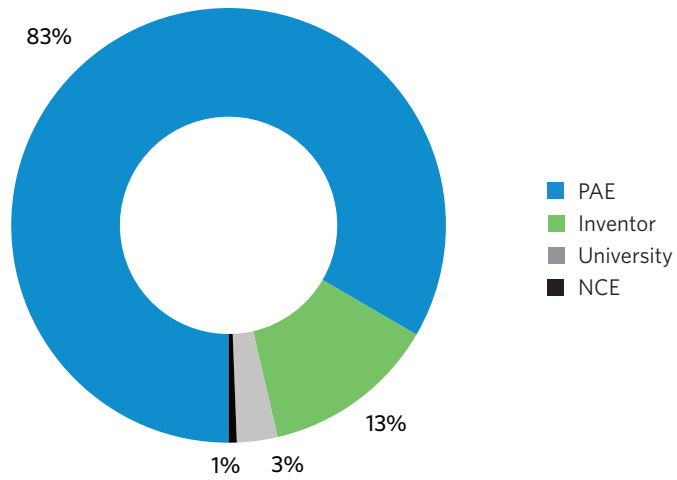


Chart 16: Total NPE Campaign Defendants Added in 2015 by NPE Type

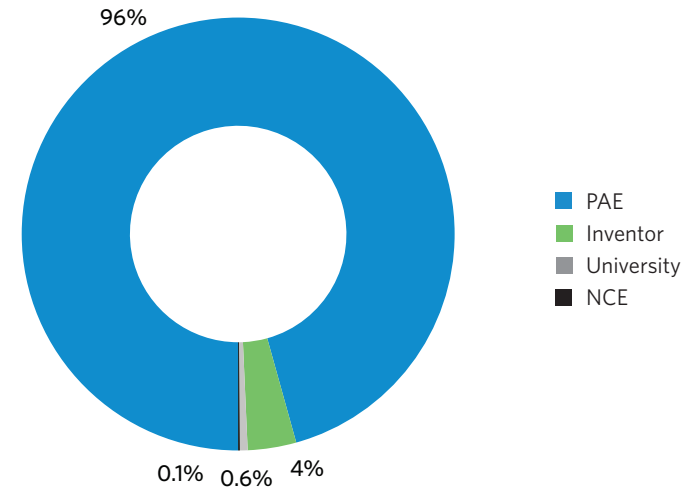
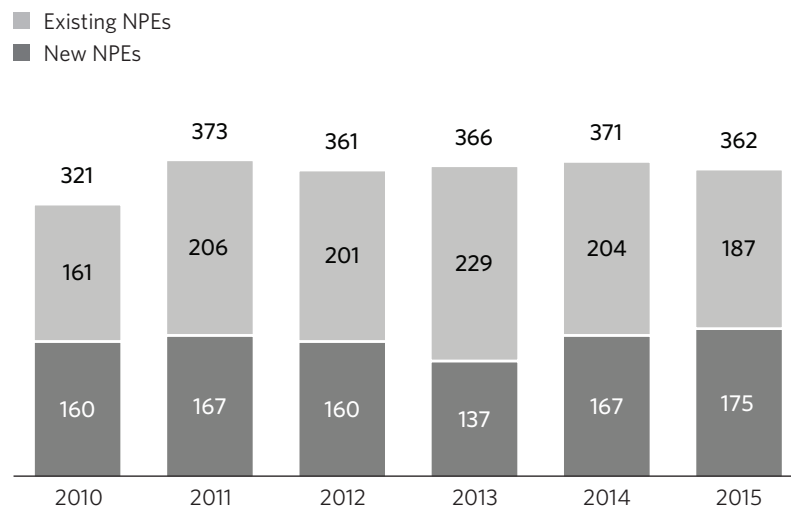


Chart 17: New NPEs Filing Suit



Litigation Volume

ITC Activity Continues to Decline

NPE litigation in the International Trade Commission (ITC) continued to decline after a brief spike in 2011. NPEs accounted for only 8% of all investigations initiated in 2015, below their lowest previous share (11% in 2010). That said, the overall number of initiated investigations has remained relatively stable for the last four years, since most were brought by operating companies. Most likely, NPEs are continuing to seek more favorable venues.

Methodology Note:

RPX reviewed all initiated Section 337 ITC investigations and identified those involving allegations of patent infringement to compile the RPX data set. Investigations were counted based on the year an investigation was initiated, and complaints that had not led to an investigation by the end of 2015 were not included in the data set.

The decrease in overall respondents compared to past reports reflects improvements to roll-up and classification of respondent entities as reported from EDIS data.

Chart 18: Total Initiated ITC Patent Investigations

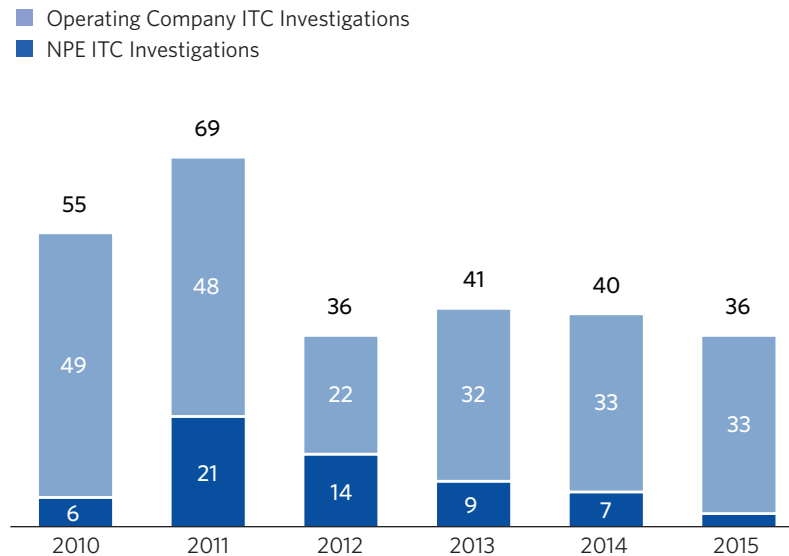
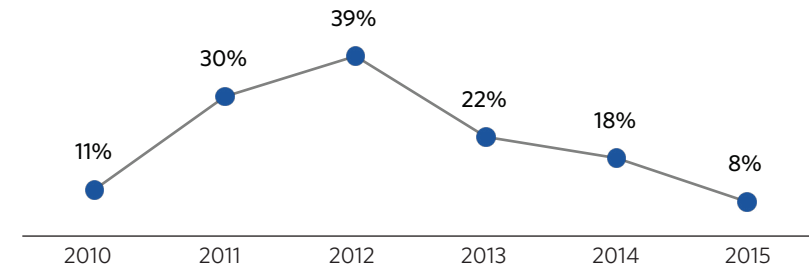


Chart 19: Initiated NPE Investigations as Percent of Initiated ITC Patent Investigations



Litigation Volume

Chart 20: Total Respondents Added to ITC Investigations

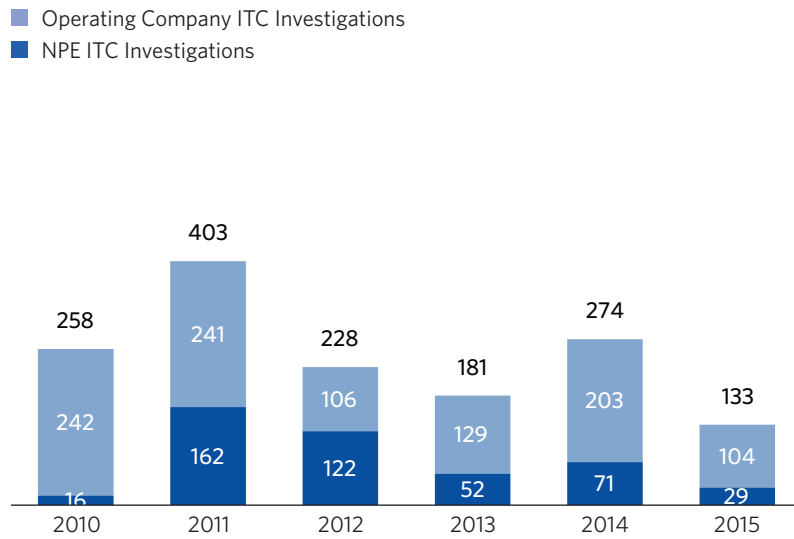
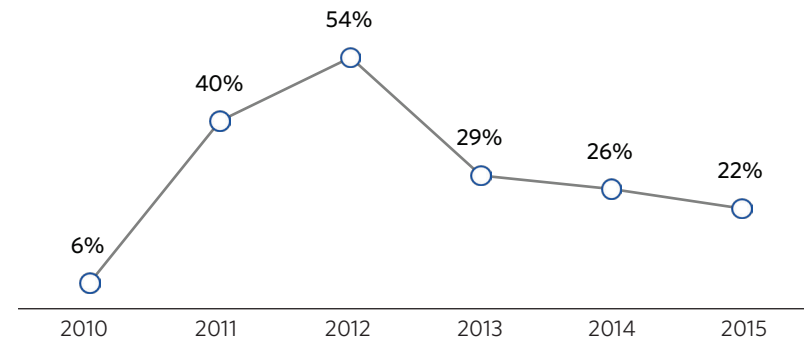


Chart 21: Total NPE ITC Respondents as Percent of Total ITC Respondents



Key 2015 Findings

PTAB Proceedings Begin to Mature

- Over 4,000 petitions for IPR or CBM review were filed from their inception (September 16, 2012) through the end of 2015. Filing rates from second quarter of 2014 onward remained relatively steady at roughly 400 - 500 petitions per quarter in total, suggesting that early popularity of these proceedings has begun to level off (Charts 22, 25, and 31).
- The PTAB issued only 714 final decisions on the merits through the end of 2015. More petitions had terminated (920)—the vast majority due to settlement—or were denied institution (868). Many petitions remained pending as of the end of 2015 (1,568)—(Chart 22).

Success Rates Have Declined

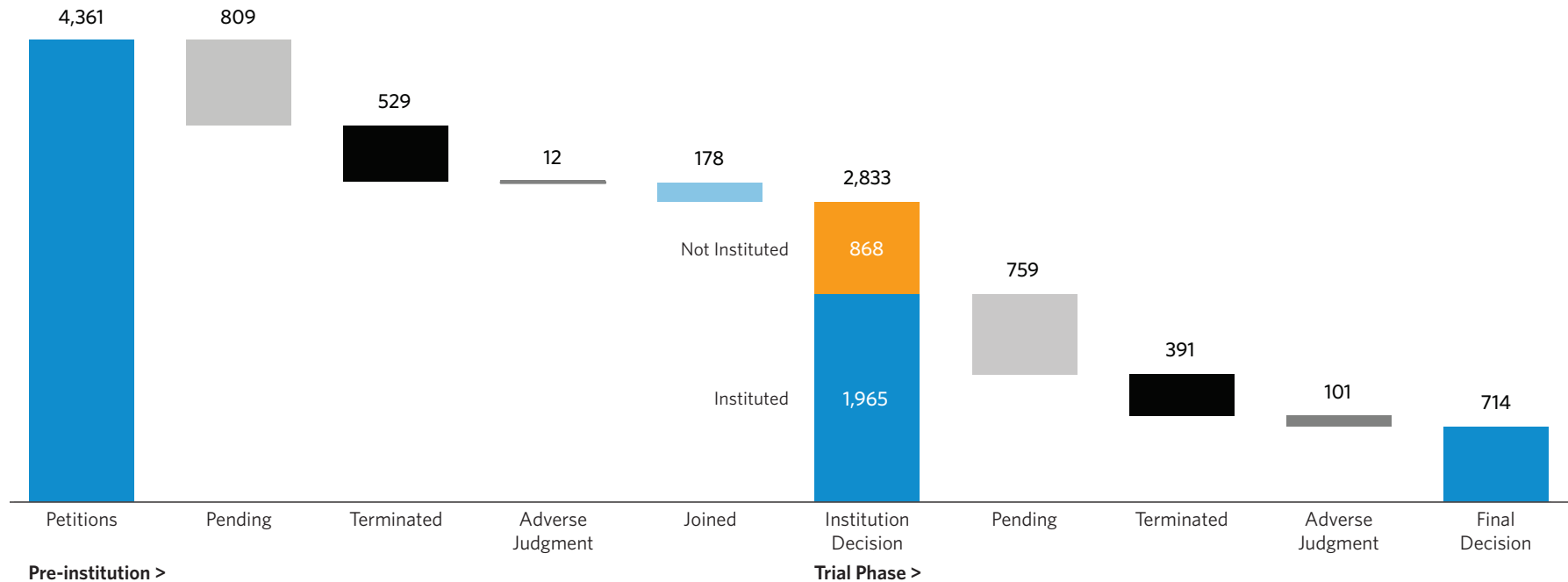
- The quarterly institution rate dropped from an early high of 92% in Q1 2013 to 67% in Q4 2015. Likewise, the quarterly final decision success rate fell from 78% in Q1 2014 to 53% of decisions ruling all challenged claims unpatentable (Charts 23 and 24).
- Relatively more final decisions (34%) than before are now reaching a mixed outcome: some claims are ruled unpatentable, while others survive (Chart 24).

PTAB vs. Litigation

- Eighty-three percent of patents in IPR were also litigated during the same period, yet the vast majority of litigations still do not involve any patent that is challenged in IPR or CBM (Charts 27 - 30, 33 - 35).

Chart 22: Status of Post-grant Petitions at Year-end 2015

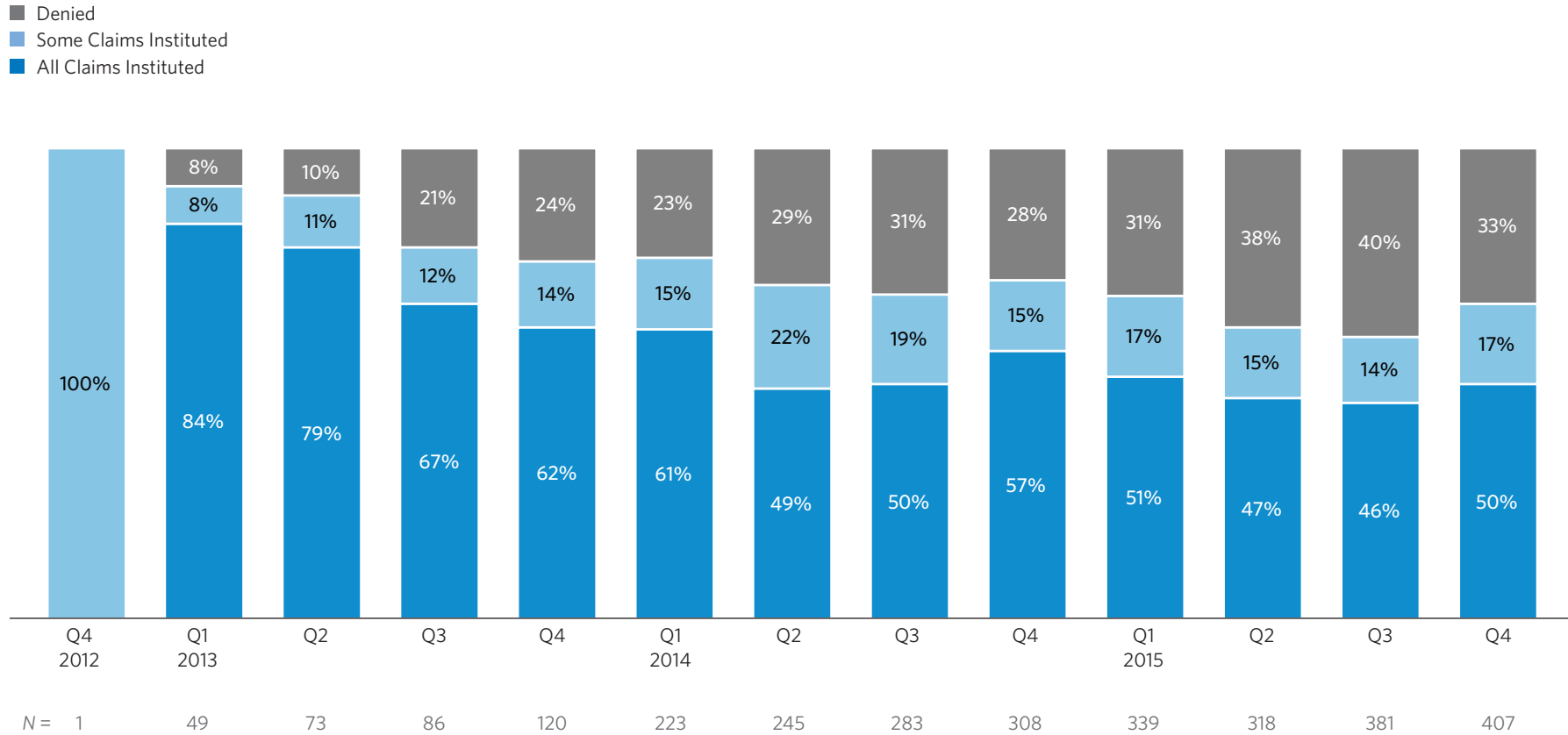
Note: Includes IPR and CBM



Patent Validity Challenges

Chart 23: Outcomes at Institution

Note: Indicates percent of IPR and CBM institution decisions in which all, some, and none of the challenged claims were instituted for review. N indicates number of decisions.

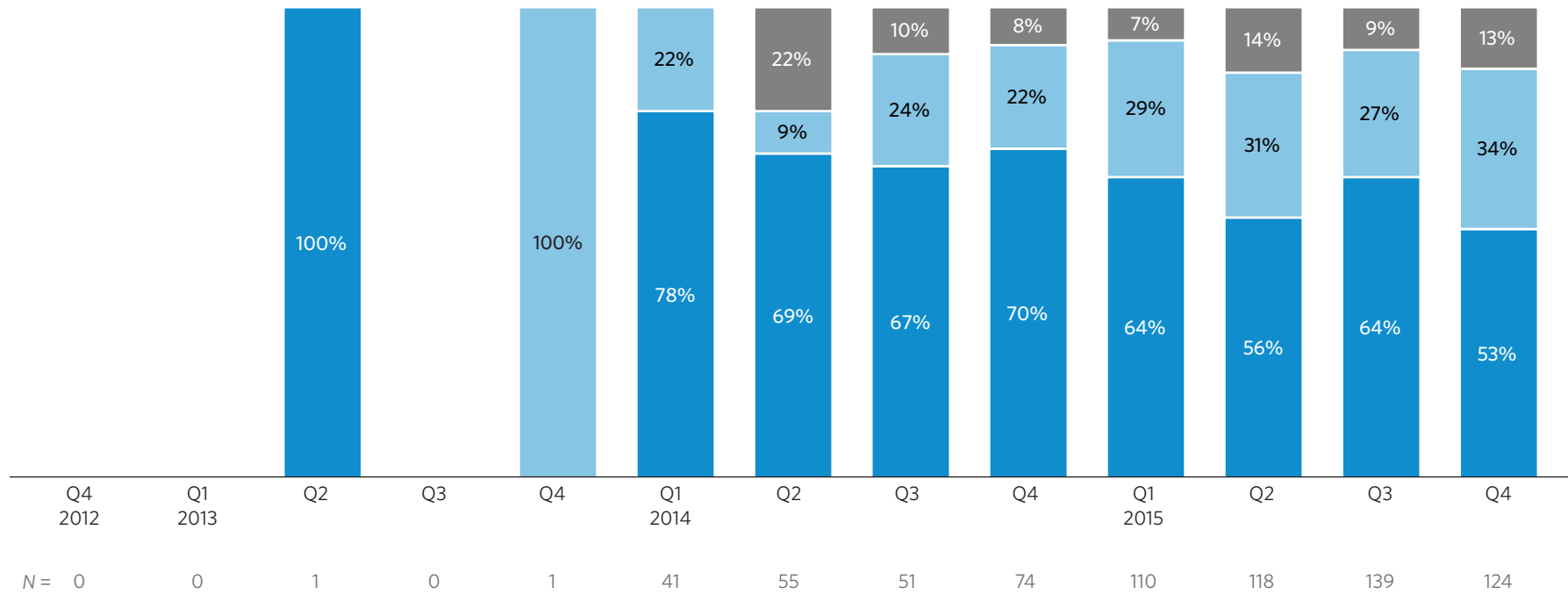


Patent Validity Challenges

Chart 24: Outcomes at Final Written Decision

Note: Indicates percent of final written decisions in IPR and CBM in which all, some, or none of the claims challenged in the original petition were ruled unpatentable.

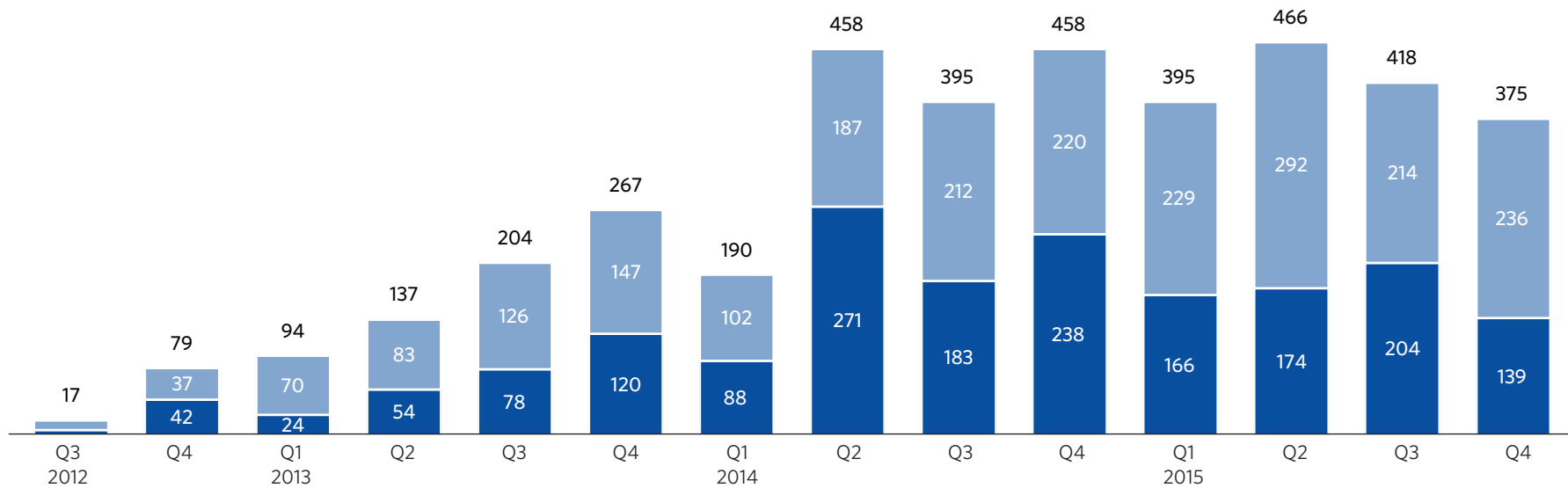
- All Claims Survive
- Some Claims Unpatentable
- All Claims Unpatentable



Patent Validity Challenges

Chart 25: Total IPR Petitions by Quarter

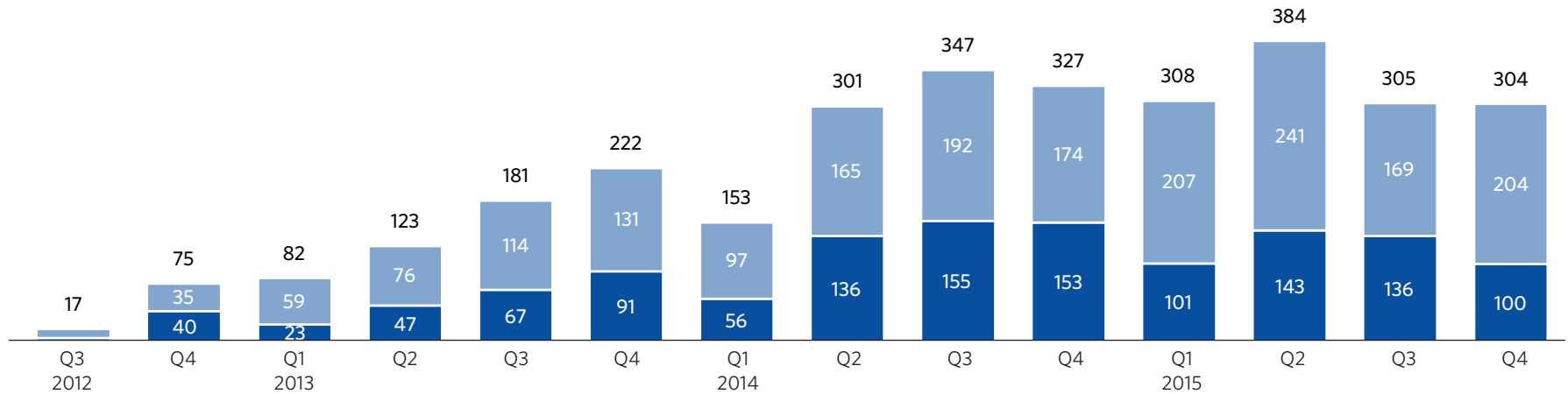
- Against Operating Company Patents
- Against NPE Patents



Patent Validity Challenges

Chart 26: Unique Patents Subjected to IPR Petition by Quarter

■ Operating Company Patents
■ NPE Patents



Patent Validity Challenges

Chart 27: NPE Cases Filed Asserting Patents Challenged in IPR

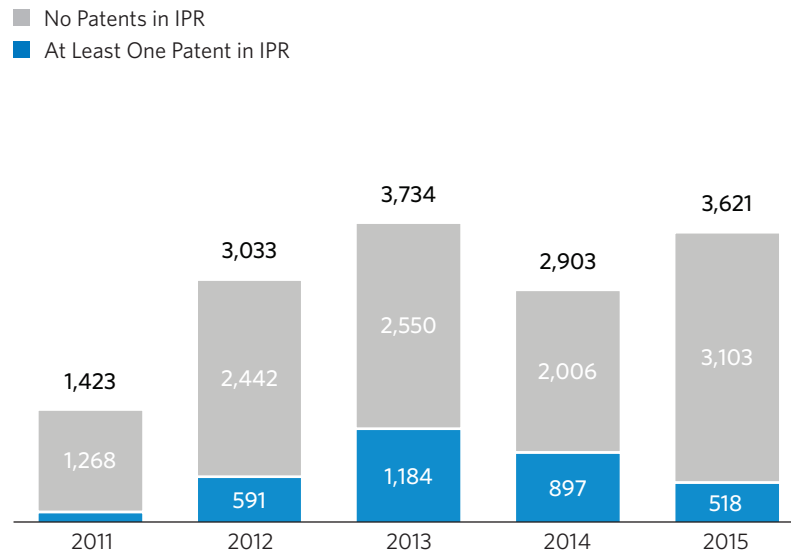


Chart 28: Total NPE Campaign Defendants Added in Assertions of Patents Challenged in IPR

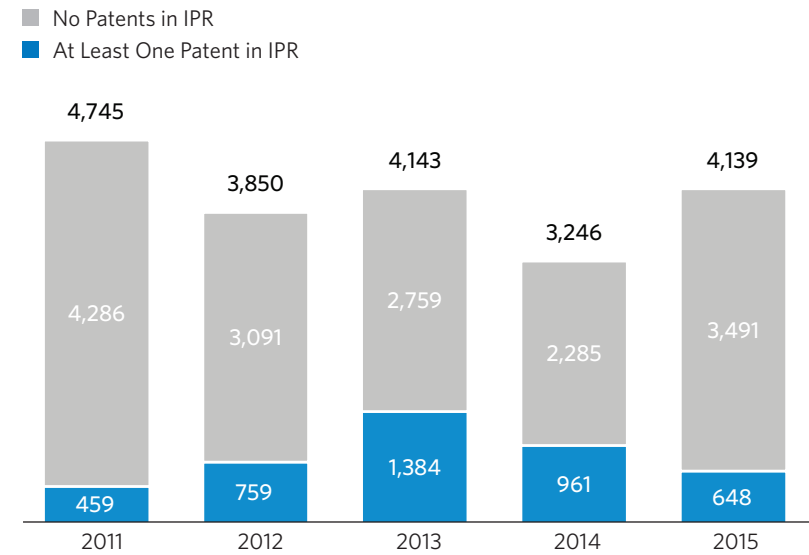
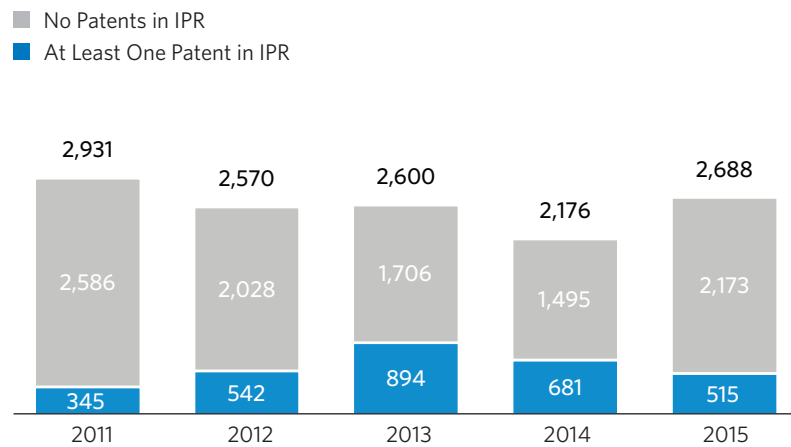


Chart 29: Unique NPE Defendants Added in Assertions of Patents Challenged in IPR

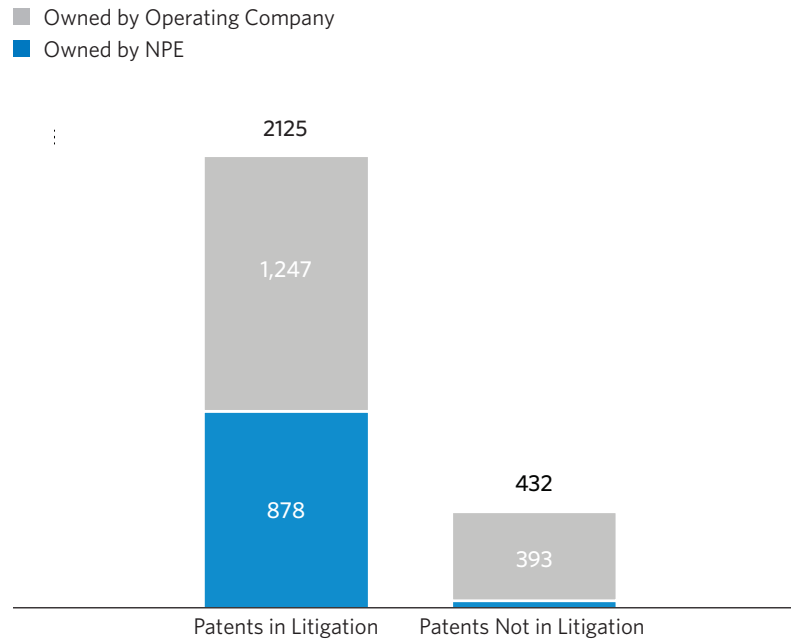


Methodology Note:

Relationships are not limited in time. Thus, an IPR petition filed in 2015 might relate to a litigation filed in 2012 in which the same patent was asserted.

Patent Validity Challenges

Chart 30: Number of Patents Subject to IPR by Assertion Status



Note:

Across all years in which patents are eligible for IPR challenge (September 16, 2011 to present).

Table 1: Top Filers of IPR Petitions in 2015 Against Patents Owned by NPEs

Rank	IPR Filer	Total Petitions Against NPEs	Other Petitions
1	Apple	62	34
2	Samsung	32	23
3	Alphabet	27	0
4	LG Electronics	25	5
5	Toyota	24	1
6	Sony	20	7
7	Volkswagen	19	0
8	Ford	18	0
9	Unified Patents	17	0
9	Microsoft	17	3

Methodology Note:

"Other Petitions" includes petitions filed against patents owned by operating companies.

Patent Validity Challenges

Chart 31: Total CBM Petitions by Quarter

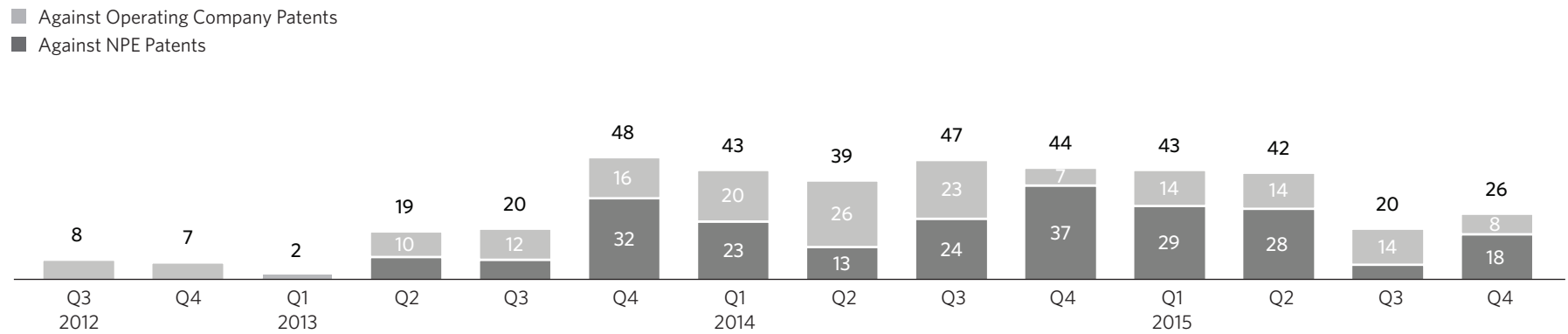
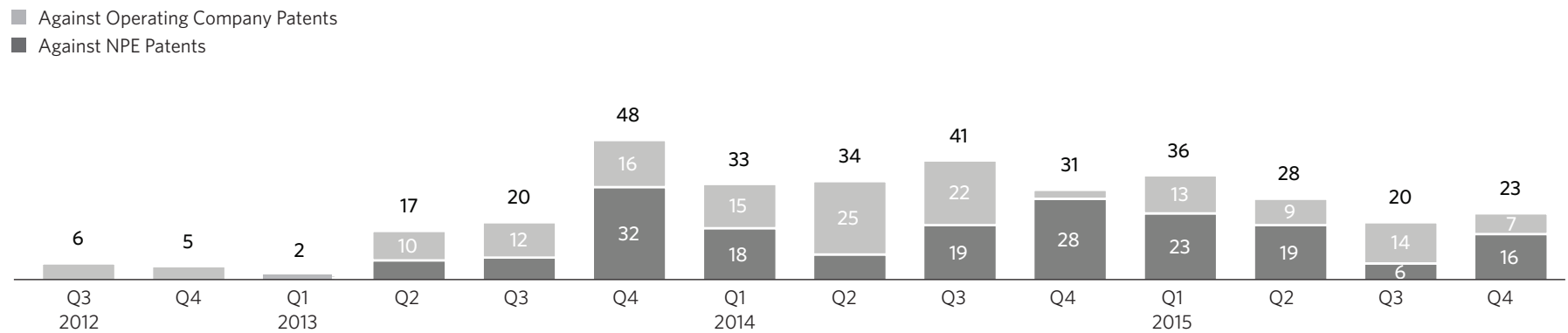


Chart 32: Total Unique Patents Subject to CBM Petition by Quarter



Patent Validity Challenges

Chart 33: NPE Cases Filed Asserting Patents Subject to CBM

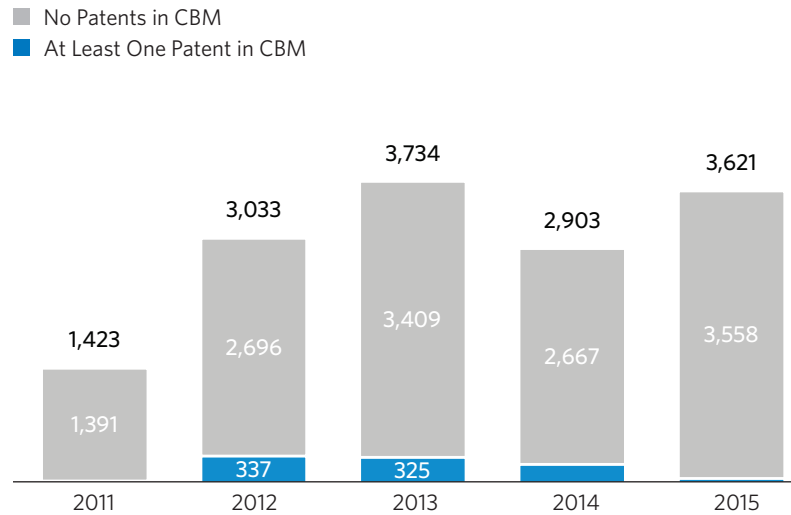


Chart 34: Total NPE Campaign Defendants Added in Assertions of Patents Subject to CBM

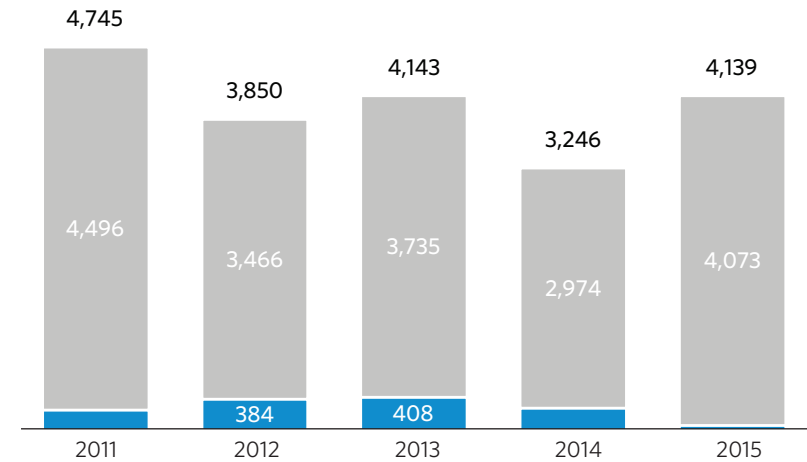


Chart 35: Unique NPE Defendants Added in Assertions of Patents Subject to CBM

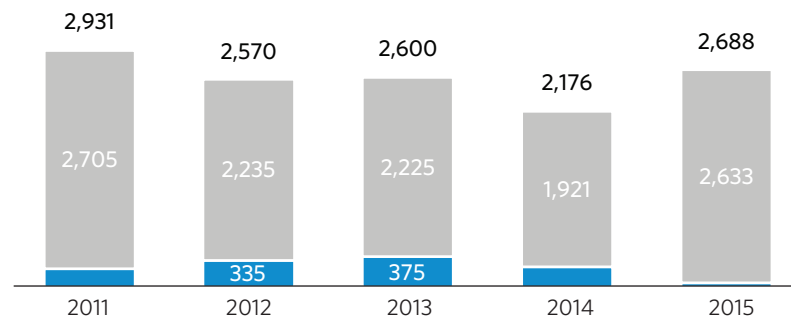


Table 2: Top Filers of CBM Petitions in 2015 Against Patents Owned by NPEs

Rank	Petitioner	Total CBM Petitions Against NPEs	Other Petitions
1	Apple	4	0
2	Alphabet	4	0
3	Acxiom	2	0
4	Walgreen	1	0
5	American Family Mutual Insurance	1	0
5	Expedia	1	0
5	TriZetto	1	0

Methodology Note (Charts 33 - 35):

Relationships are not limited in time. Thus, a CBM petition filed in 2015 might relate to a litigation filed in 2012 in which the same patent was asserted.

Methodology Note:

"Other Petitions" includes petitions filed against patents owned by operating companies.

Key 2015 Findings

Eastern District of Texas Back on the Rise

In 2015, the Eastern District of Texas took its largest share of NPE volume (62.5% of defendants, 66% of cases) since at least 2009—significantly more than in 2014 (45%, 48%). Delaware remained in a distant second place (6.5%, 7%), but with a much lower share than it had in 2011 - 2014 (21% of defendants on average). The rest of NPE volume was spread throughout all other districts (Charts 36 and 37).

Defendants in, Defendants out

Fewer defendants were left in the Eastern District of Texas than started there in 2015, reflecting some transfers and a high number of terminations within a year of initiation.

Delaware, by contrast, still had a higher backlog than its additions by year-end, as it did in 2014. The two districts combined accounted for 63% of the total backlog remaining at the end of 2015 (Chart 38).

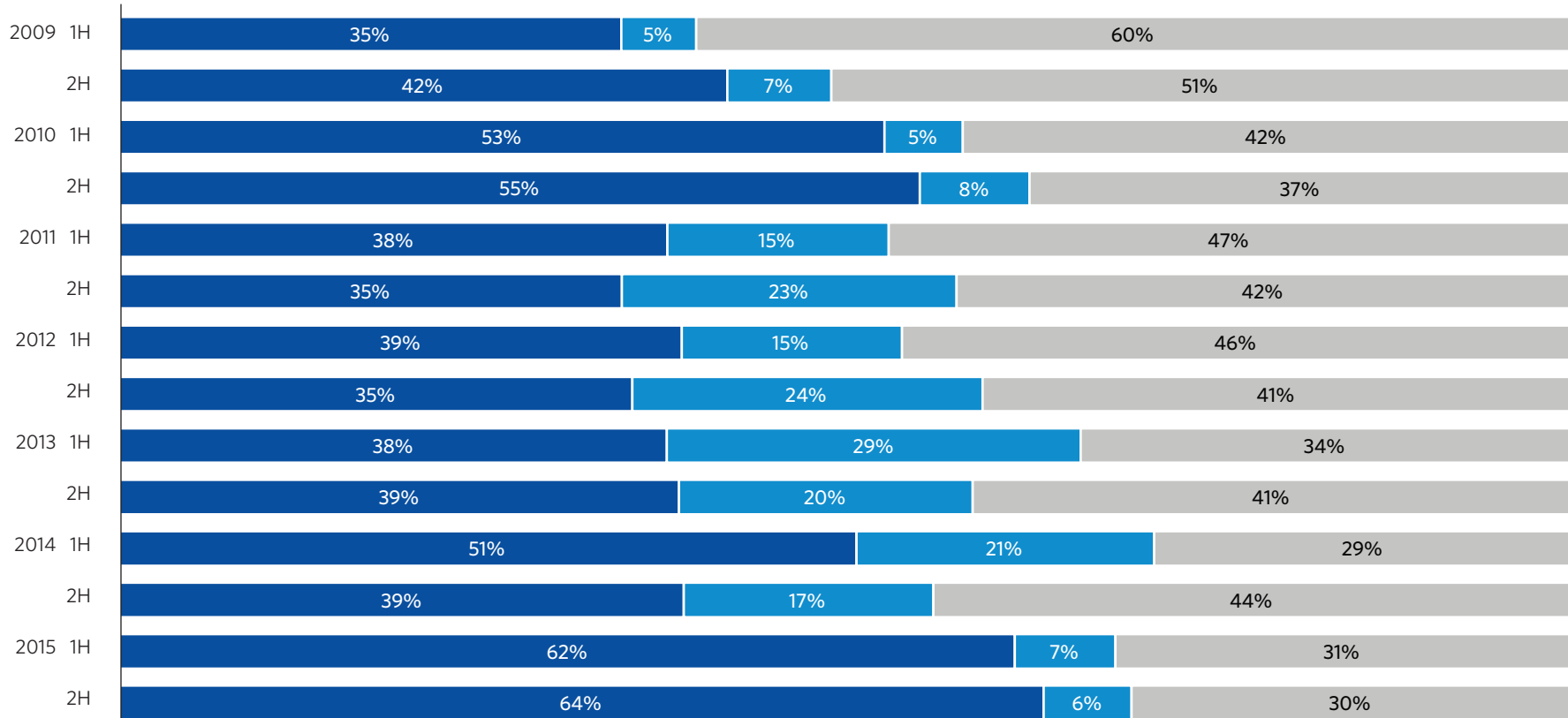
Declaratory Judgments

The Northern Districts of California and Illinois took the largest share of declaratory judgments (DJs). All of the Illinois DJs were filed in the Sockeye Licensing campaign, while California's were more evenly distributed (Charts 39 and 40).

Venue

Chart 36: Share of Total NPE Campaign Defendants Added by Venue

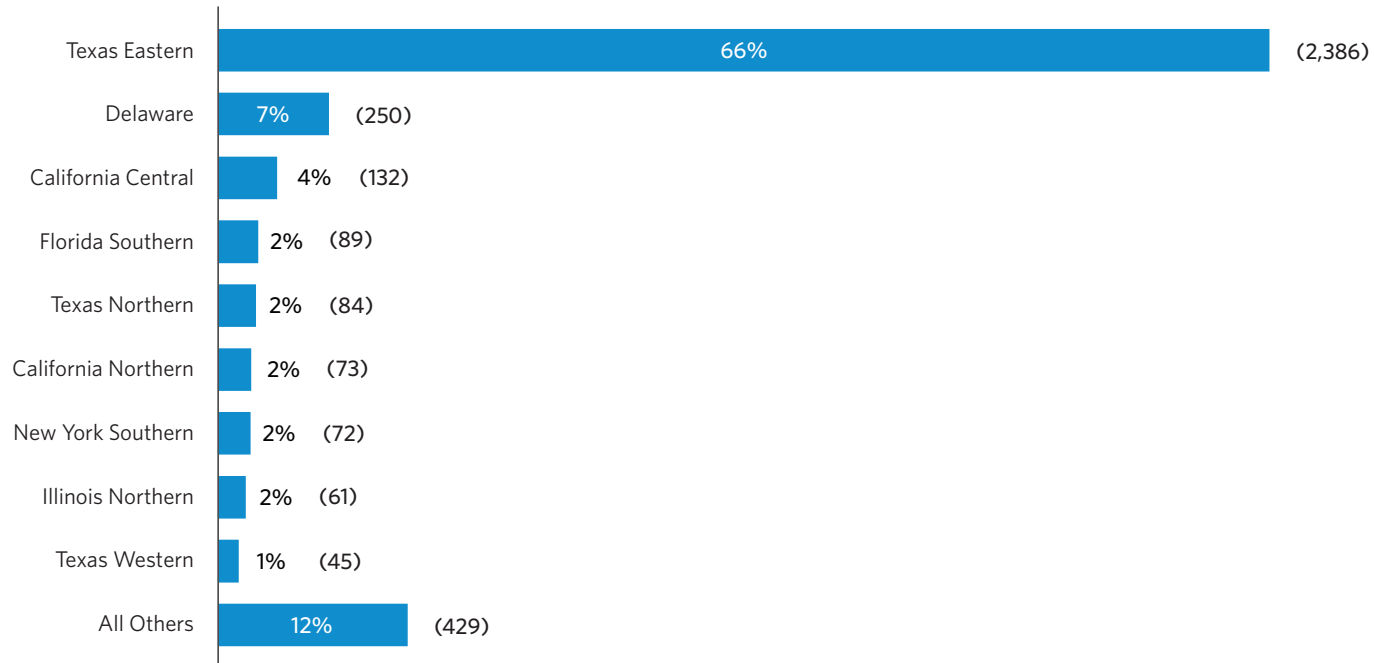
■ E.D. Texas ■ D. Del ■ All Others



Venue

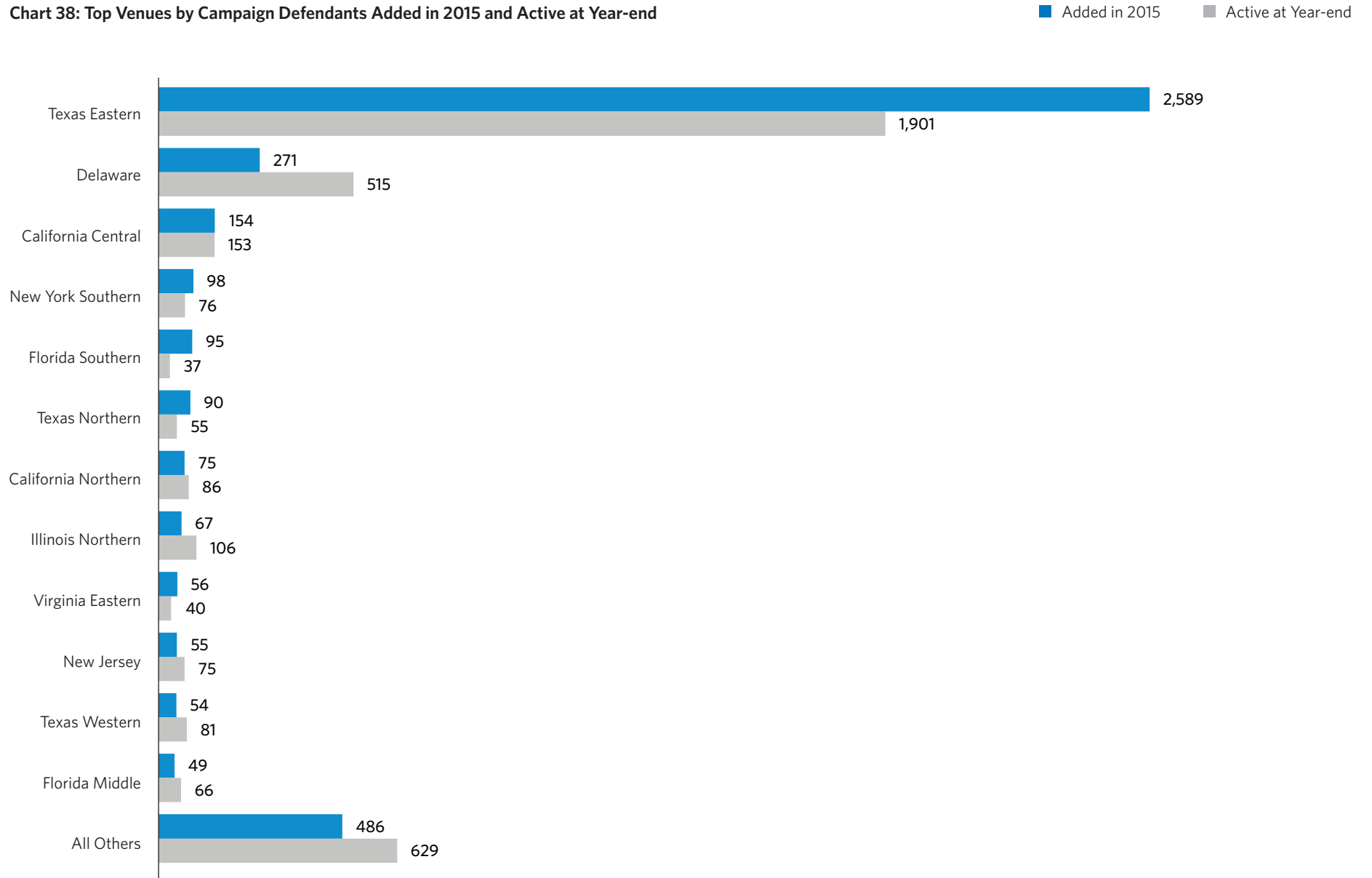
Chart 37: NPE Cases Filed in 2015 by District Court Venue

Note: N = 3,621



Venue

Chart 38: Top Venues by Campaign Defendants Added in 2015 and Active at Year-end



Venue

Chart 39: Total Venues by Declaratory Judgment NPE Cases Filed in 2015

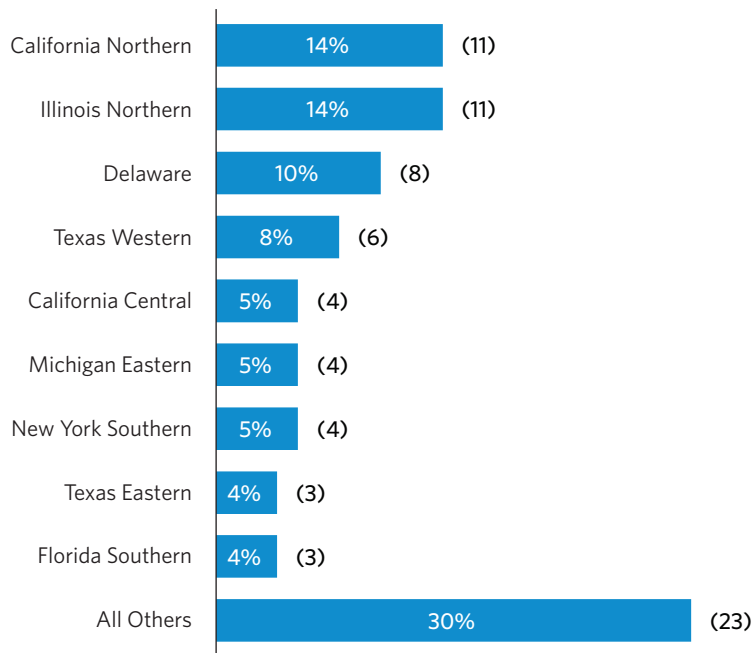
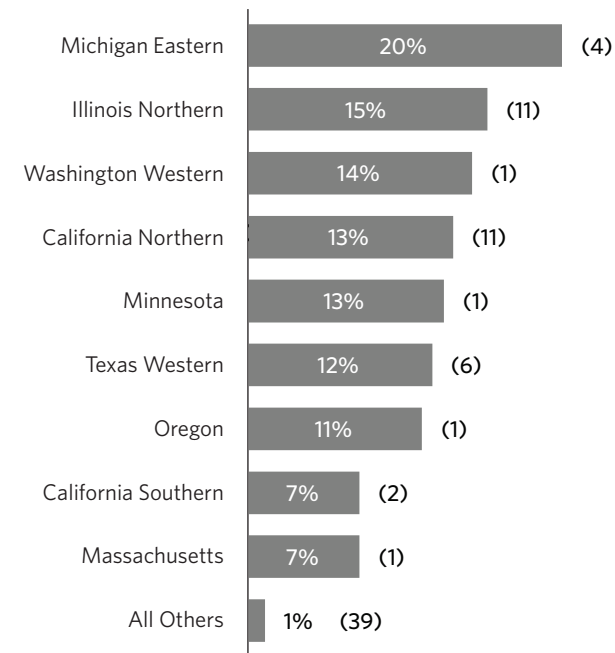


Chart 40: District Courts with Largest Ratio of Declaratory Judgment NPE Cases to Total NPE Cases Filed in 2015



Methodology Note:

Ratio reflects the number of NPE declaratory judgment cases to the total of all NPE cases filed in that district in 2015, including both infringement cases and declaratory judgment cases. (N) denotes the numerator (number of DJs filed). Districts with fewer than five NPE cases filed in 2015 are excluded.

Key 2015 Findings

E-commerce and Software; Consumer Electronics and PCs; Consumer Products

NPEs targeted a broad range of sectors but mostly focused on the same top three sectors from 2014, together accounting for 58% of all defendants added (Chart 41).

High Revenue, High Frequency

In 2015, NPEs continued to hit high-revenue companies much more frequently than those with lower annual revenue. Most high-revenue defendants were again hit by litigations in the Mobile Communications and Devices and Consumer Electronics sectors (Chart 42). This frequency trend has continued for the last six years, roughly tracking the rise and fall of overall litigation volume (Chart 46).

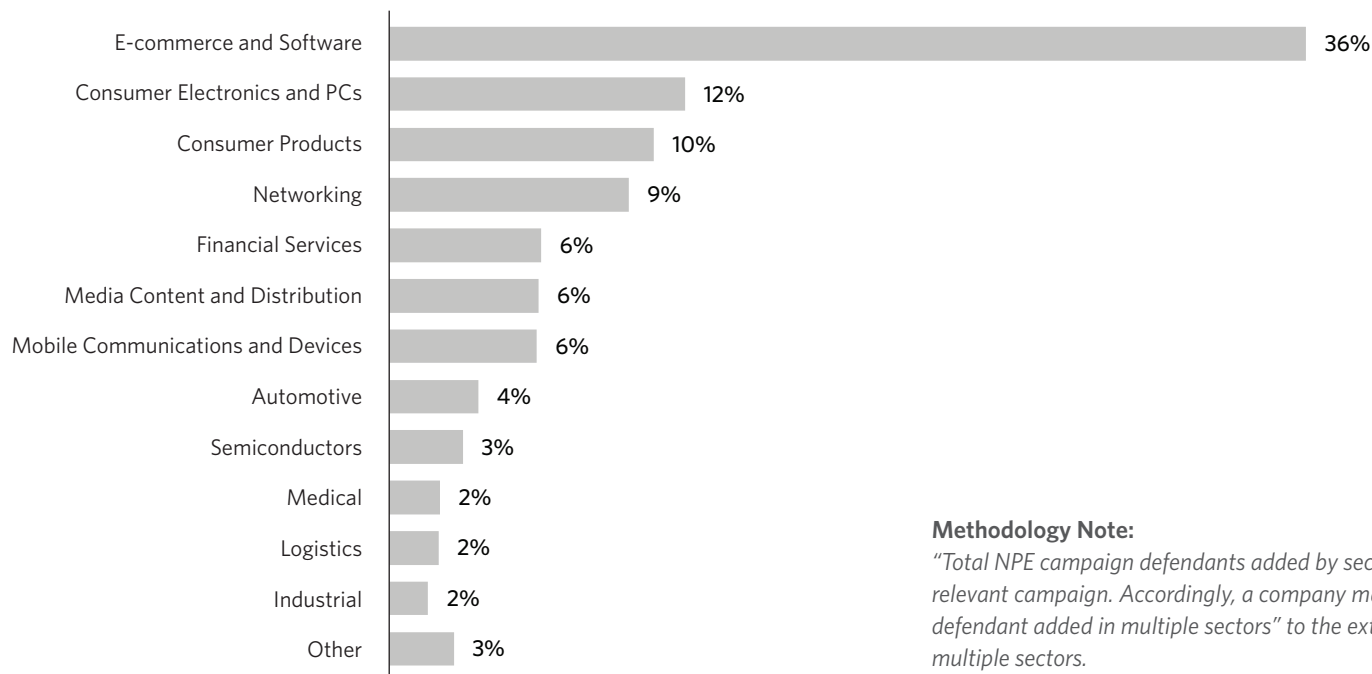
Most Defendants Were Private Companies

Nearly three fourths of the unique NPE defendants added, and over one half of the total NPE defendants added in 2015, were private companies (Chart 43). These “unique” and “total” shares differ because private companies tended to get sued less frequently (1.5x) than public companies (3.2x), and so make up a lesser portion of the total volume (Chart 45).

Most Defendants Were Smaller Companies

In 2015, companies with less than \$100 million in revenue again accounted for over 60% of the unique NPE defendants added and over 40% of total NPE defendants added (Chart 44). Defendants with over \$50 billion in revenue are consistently sued six to eight times as frequently as defendants with less than \$100 million in revenue (Chart 46).

Chart 41: Total NPE Campaign Defendants Added in 2015 by Sector



Methodology Note:

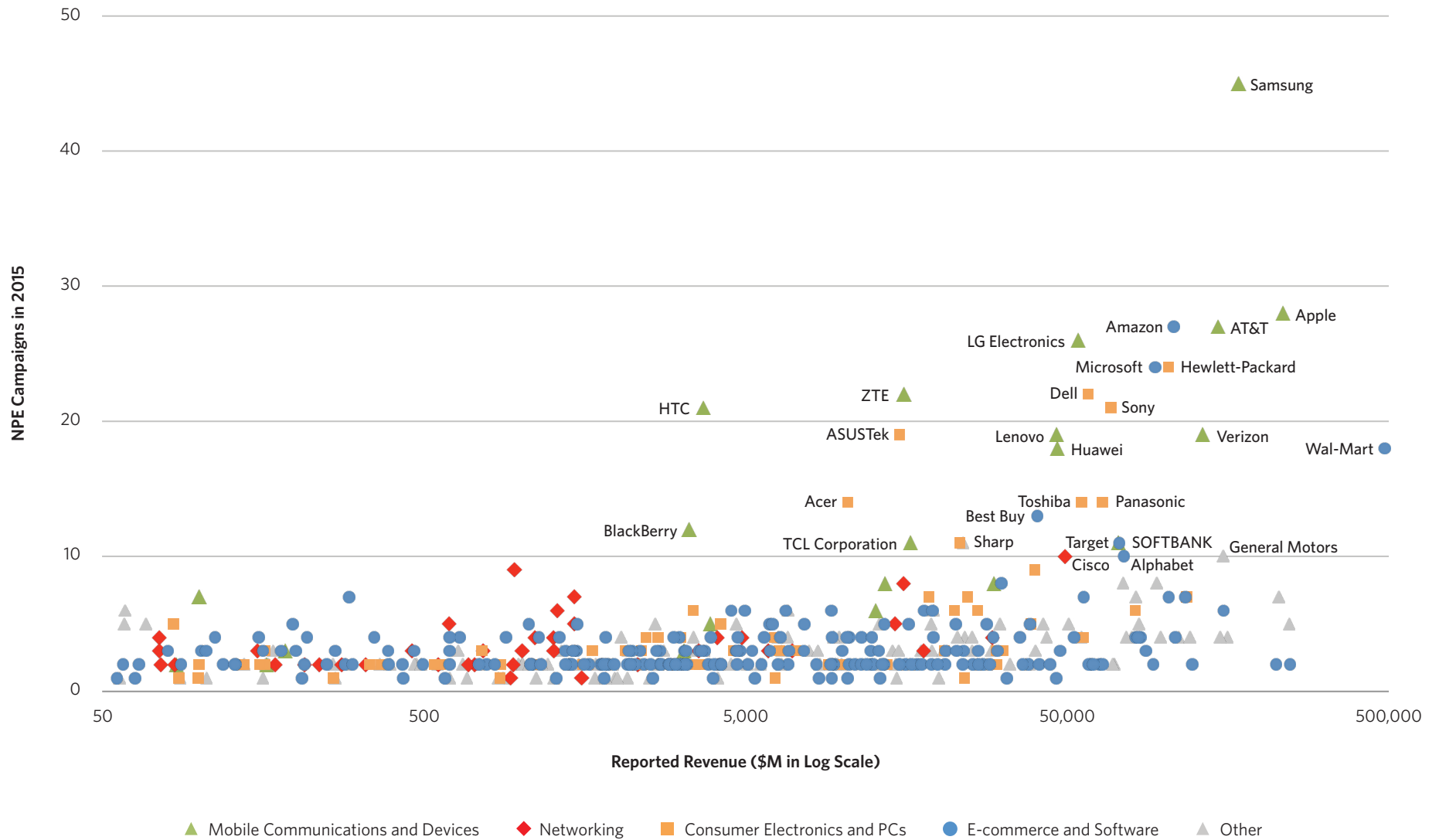
“Total NPE campaign defendants added by sector” is based on the classification of the relevant campaign. Accordingly, a company may be included as an “NPE campaign defendant added in multiple sectors” to the extent that its campaign was classified in multiple sectors.

Sector and Revenue Analysis

Chart 42: NPE Campaign Frequency per Company by Sector and Revenue

Methodology Note:

Companies were categorized based on the most common RPX sector of cases they were added to in 2015. Revenue is based on data from third-party providers and is for annual results available at year-end 2015 (typically 2014 results).



Sector and Revenue Analysis

Chart 43: Share of NPE Campaign Defendants Added in 2015 by Ownership Type

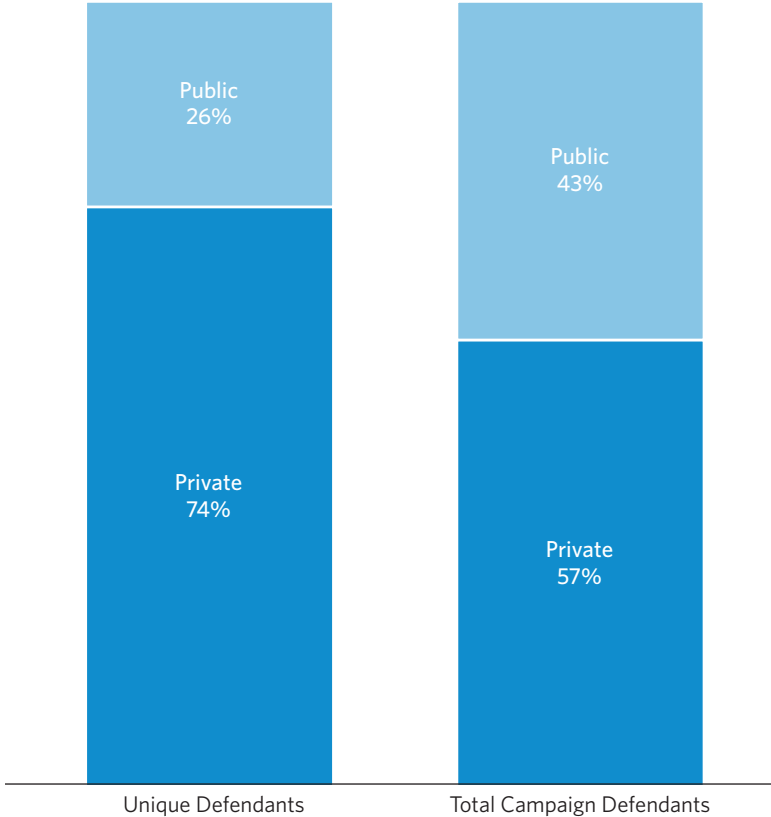
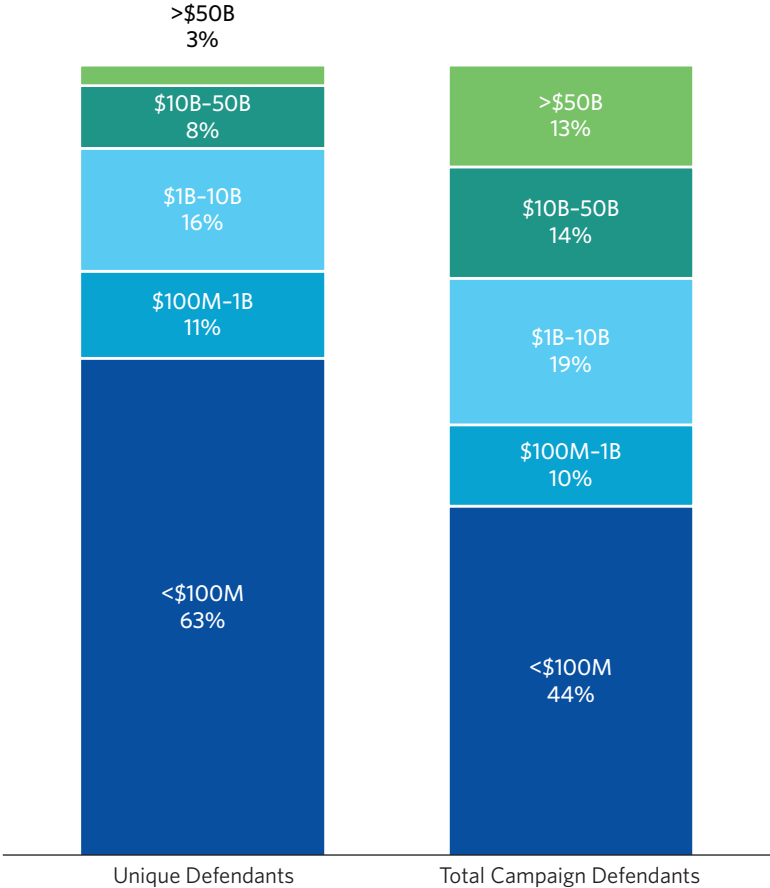


Chart 44: Share of NPE Campaign Defendants Added in 2015 by Company Revenue



Sector and Revenue Analysis

Chart 45: NPE Campaigns per Unique Defendant by Ownership Type

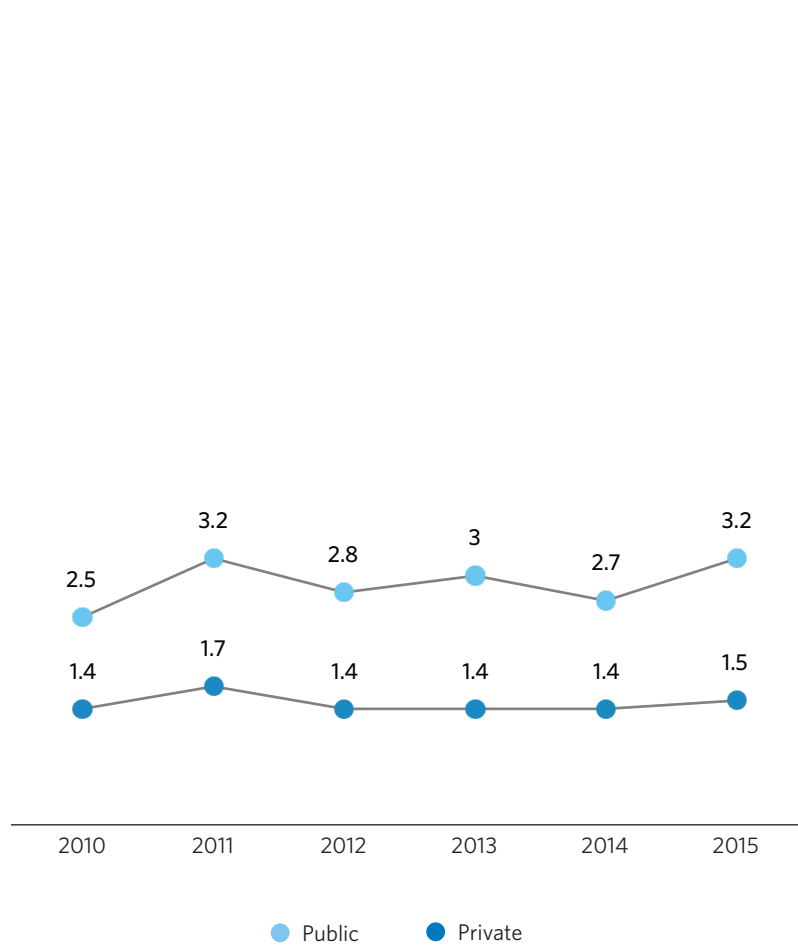
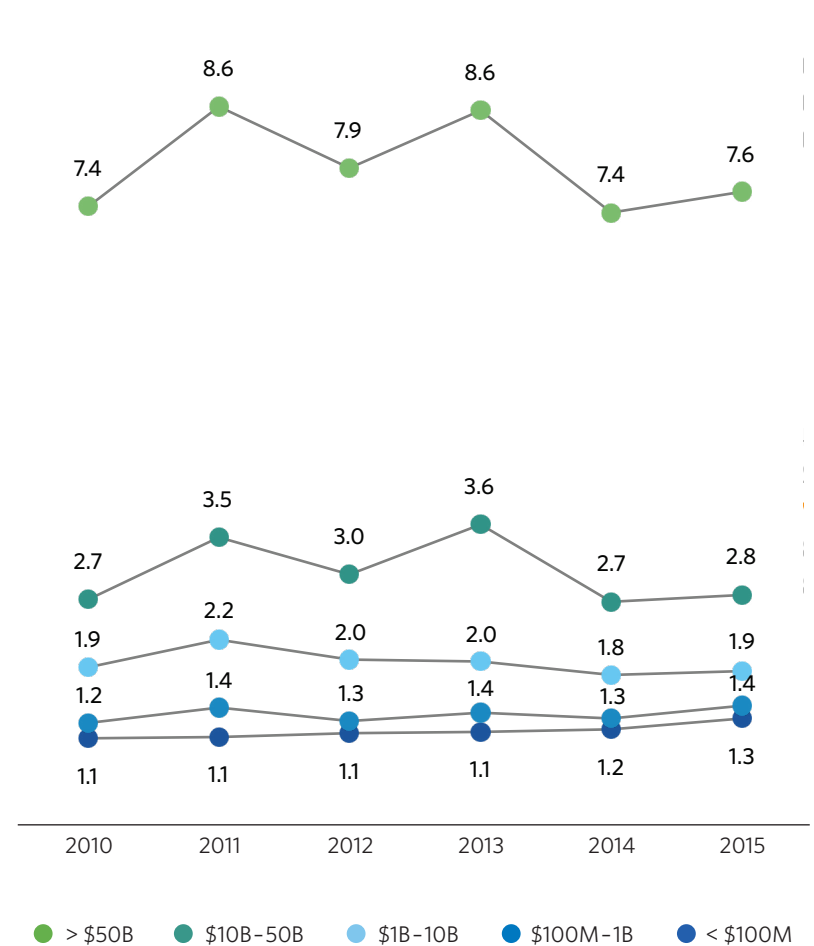


Chart 46: NPE Campaigns per Unique Defendant by Company Revenue



Methodology Note:

Revenue is based on data from third-party providers and is for annual results available at time of report (typically 2014 results). Determination of ownership type is also based on data from third-party providers. Ownership type may change across time as companies switch from private to public and vice versa.

Key 2015 Findings

Unsurprising Targets

In 2015, NPEs continued to favor 13 of the top 15 defendants from last year. Google (now Alphabet), T-Mobile, and Sprint fell off, while Lenovo, ASUSTek, and Huawei replaced them at the bottom of the list (Table 3). Fourteen of the top defendants by new campaigns were also the top defendants by active campaigns at year-end, with Toshiba replacing ZTE as the 15th (Table 4). (Note: the difference in total counts from 2014 in this and other tables reflects a shift to campaign methodology where stated. See Methodology for details.)

New and Usual Suspects

As Tables 5 and 6 demonstrate, familiar names (Wi-LAN, Rothschild, Empire, Acacia) were among the most prolific litigating NPEs in 2015, by both breadth and depth. Acacia remained the top NPE for the last five years by campaign volume, with IPNav trailing a close second (Tables 7 and 8).

Big Hitters

While the top ten NPEs are only 2.7% of all NPEs filing suit in 2015 (Chart 17), they accounted for 15% and 19%, respectively, of all NPE campaigns filed and defendants added (Chart 47).

Table 3: Top 15 NPE Defendants by New Campaigns

Rank	Defendant	2015	2014
1	Samsung	45	33
2	Apple	28	30
3	Amazon	27	28
3	AT&T	27	23
5	LG Electronics	26	25
6	Microsoft	24	28
6	Hewlett-Packard	24	18
8	Dell	22	14
8	ZTE	22	12
10	Sony	21	24
10	HTC	21	21
12	Verizon	19	26
12	Lenovo	19	24
12	ASUSTek	19	10
15	Huawei	18	12
Year Totals		4,139	3,246

Table 4: Top 15 NPE Campaign Defendants by Active Status at Year-end

Rank	Defendant	2015	2014
1	Samsung	60	62
2	Apple	54	60
3	AT&T	40	48
4	LG Electronics	37	47
5	Lenovo	34	46
6	Alphabet	32	53
7	Microsoft	30	44
7	Verizon	30	43
9	Amazon	29	53
10	Sony	28	44
10	HTC	28	37
12	ZTE	26	23
13	Hewlett-Packard	22	26
14	Huawei	21	28
15	Dell	18	27
Year Totals		3,803	4,387

Top Plaintiffs and Defendants

Table 5: Top Ten NPEs by Campaigns Filed in 2015

Rank	NPE	2015	Active at YE
1	Wi-LAN Inc.	13	18
2	Monument Patent Holdings, LLC	8	8
3	Empire IP LLC	5	13
4	Acacia Research Corporation	4	28
4	General Patent Corporation	4	6
4	Positron Intellectual Property, LLC	4	4
7	Leigh M. Rothschild	3	5
7	Blackbird Tech LLC	3	3
9	Intellectual Ventures LLC	2	8
9	Uniloc Corporation Pty Limited	2	7
9	Visual Memory LLC	2	2
Year Totals		331	

Table 7: Top Ten NPEs by Campaigns Filed 2011 - 2015

Rank	Defendant	Past 5 Years	2015 Only
1	Acacia Research Corporation	93	4
2	Empire IP LLC	31	5
3	Wi-LAN Inc.	25	13
4	IPNav	21	0
5	Walker Innovation Inc.	17	0
6	Marathon Patent Group, Inc.	15	0
7	General Patent Corporation	10	4
7	Monument Patent Holdings, LLC	10	8
9	The Medici Portfolio LLC	9	0
10	Uniloc Corporation Pty Limited	8	2
Year Totals		1,749	331

Table 6: Top Ten NPEs by Total Campaign Defendants Added in 2015

Rank	NPE	2015	Active at YE
1	Leigh M. Rothschild	141	67
2	eDekka LLC	101	30
3	IPNav	96	64
4	Empire IP LLC	81	67
5	Wi-LAN Inc.	77	68
6	CryptoPeak Solutions, LLC	65	48
6	Shipping & Transit, LLC	65	17
8	Hawk Technology Systems LLC	59	11
9	Olivistar LLC	57	8
10	Acacia Research Corporation	56	135
Year Totals		4,139	3,803

Table 8: Top Ten NPEs by Total Campaign Defendants Added 2011 - 2015

Rank	Defendant	Past 5 Years	2015 Only
1	Acacia Research Corporation	988	56
2	IPNav	696	96
3	Empire IP LLC	621	81
4	Marathon Patent Group, Inc.	510	3
5	Arrivalstar SA	397	15
6	PJC Logistics LLC	260	0
7	eDekka LLC	254	101
8	Select Retrieval LLC	202	0
9	Walker Innovation Inc.	191	0
10	Leigh M. Rothschild	177	141
Year Totals		20,123	4,139

Top Plaintiffs and Defendants

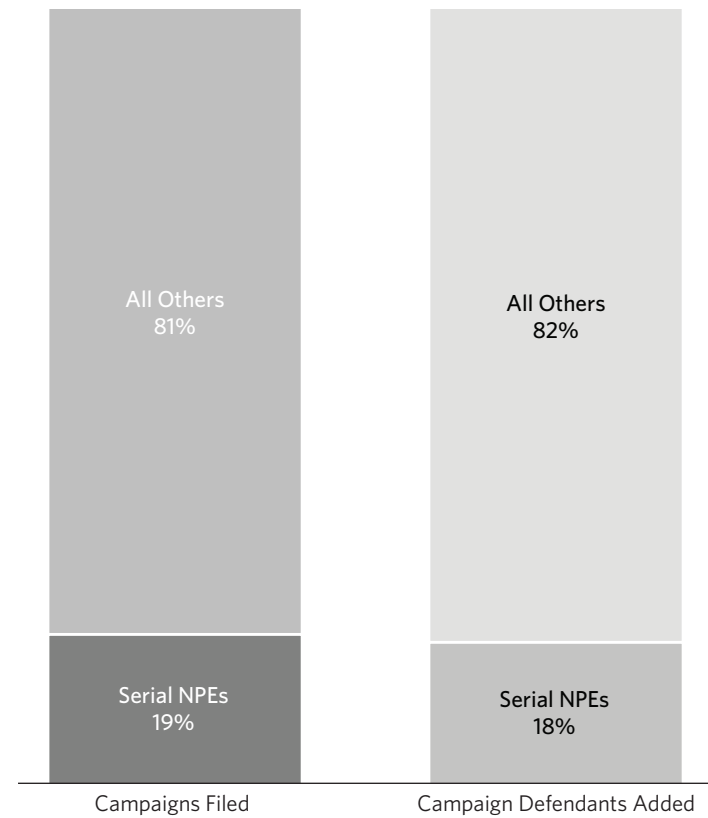
Chart 47: Share of NPE Filings from Top Ten NPEs in 2015



Methodology Note:

The top ten NPEs are those listed in Table 5 (campaigns) and Table 6 (defendants).

Chart 48: Share of NPE Filings from Serial NPEs in 2015



Methodology Note:

Serial NPEs are NPEs that RPX has identified as having initiated three or more assertion campaigns, including campaigns before 2014.

Key 2015 Findings

Top Class Codes

NPE-asserted patents most commonly had USPC codes associated with software. Once again, the top five class codes accounted for 31% of unique patents asserted by NPEs. Class 705 saw the greatest drop in defendants sued compared to 2014 (Table 9).

Still Many Boom-era NPE Patents

Once again, most patents asserted by NPEs in 2015 (53%) claimed priority to the period from 1995 to 2000, a time of exceptional growth for Internet technology companies. The mean and median priority dates of patents asserted by NPEs have continued to inch forward from year to year. Patents asserted by operating companies, on the other hand, are much more evenly distributed across history (Chart 49 and Table 10).

Methodology Note:

Orange up/down indicators reflect the top five and bottom five class codes by year-over-year increase and decrease, respectively, in each metric. Those that did not make the list of the top 30 by overall volume appear specially below.

“Common RPX Categories” are the most common RPX sector classifications for cases in which patents of the applicable USPC code were asserted in 2015. “Defendants” are those added to campaigns with the listed patent type asserted.

Patent Details

Table 9: USPC Classes of Patents Most Frequently Asserted by NPEs in 2015

USPC Code	Common RPX Categories	Unique Patents 2015 Total	YOY	Defendants 2015 Total	YOY
Top Classes (ten or more asserted patents)		880			
705: Data Processing: Financial, Business Practice, Management, or Cost/Price Determination	E-commerce and Software	88	-19	301	-66
709: Electrical Computers and Digital Processing Systems: Multicomputer Data Transferring	E-commerce and Software	88	-13	425	74
455: Telecommunications	E-commerce and Software, Networking	73	-16	286	93
370: Multiplex Communications	Networking	71	0	222	75
340: Communications: Electrical	Consumer Electronics and PCs, E-commerce and Software	69	-3	231	-1
715: Data Processing: Presentation Processing of Document, Operator Interface Processing, and Screen Saver Display Processing	E-commerce and Software	37	6	268	150
375: Pulse or Digital Communications	Media Content and Distribution, Mobile Communications and Devices	33	-20	79	14
345: Computer Graphics Processing and Selective Visual Display Systems	Consumer Electronics and PCs, Financial Services	31	-3	112	28
348: Television	Consumer Electronics and PCs	28	3	205	100
358: Facsimile and Static Presentation Processing	E-commerce and Software	27	6	128	88
713: Electrical Computers and Digital Processing Systems: Support	E-commerce and Software, Networking	25	-21	278	209
701: Data Processing: Vehicles, Navigation, and Relative Location	E-commerce and Software	23	-5	194	45
379: Telephonic Communications	Mobile Communications and Devices, Networking	22	-16	84	-62
514: Drug, Bio-affecting and Body Treating Compositions	Biotech and Pharma	22	6	47	18
257: Active Solid-state Devices (e.g. transistors, solid-state diodes)	Semiconductors	19	-1	22	10
362: Illumination	Consumer Products	19	-8	38	-5
725: Interactive Video Distribution Systems	Media Content and Distribution, Networking	18	0	49	18

Patent Details

USPC Code	Common RPX Categories	Unique Patents		Defendants	
		2015 Total	YOY	2015 Total	YOY
710: Electrical Computers and Digital Data Processing Systems: Input/Output	Consumer Products, Networking	16	-2	52	-22
235: Registers	Media Content and Distribution	15	-33	100	57
726: Information Security	E-commerce and Software	15	-6	89	34
365: Static Information Storage and Retrieval	Semiconductors	14	1	19	9
435: Chemistry: Molecular Biology and Microbiology	Biotech and Pharma	14	-4	8	1
704: Data Processing: Speech Signal Processing, Linguistics, Language Translation, and Audio Compression/Decompression	Semiconductors	14	-16	30	8
600: Surgery	Medical	13	11	27	7
382: Image Analysis	Consumer Electronics and PCs, Mobile Communications and Devices	12	0	45	13
707: Data Processing: Database and File Management or Data Structures	E-commerce and Software	12	-6	94	29
438: Semiconductor Device Manufacturing: Process	Semiconductors	11	6	8	-6
D25: Building Units and Construction Elements	Consumer Products	11	11	2	2
424: Drug, Bio-affecting and Body Treating Compositions	Biotech and Pharma	10	-4	12	-5
463: Amusement Devices: Games	E-commerce and Software	10	-4	28	-58
52: Static Structures (e.g. buildings)	Consumer Products	10	8	13	11
702: Data Processing: Measuring, Calibrating, or Testing	E-commerce and Software	10	-3	13	-55
Other Classes (128 in total)		373			
482: Exercise Devices	Consumer Products	9	9	21	21
356: Optics: Measuring and Testing	Mobile Communications and Devices	9	7	15	14
711: Electrical Computers and Digital Processing Systems: Memory	Consumer Electronics and PCs	7	-19	13	-49

Patent Details

Chart 49: Priority Date of Asserted Patents in 2015

Methodology Note:

Priority date is based on filing date of earliest-filed family member.

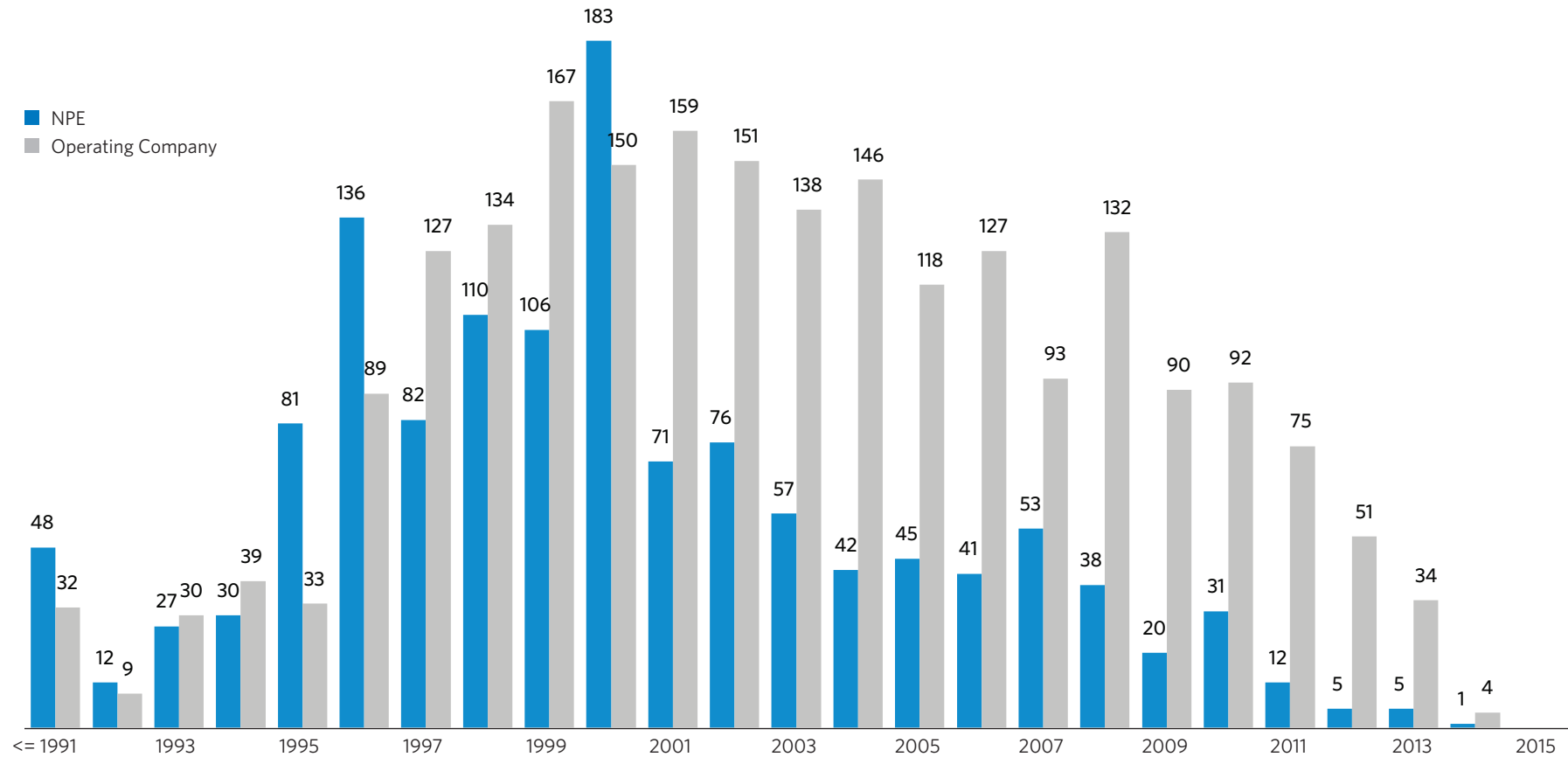


Table 10: Mean / Median Priority Date of Asserted Patents by Year of Assertion

		2010	2011	2012	2013	2014	2015
Mean Year	NPE	1997	1997	1998	1998	1999	2000
	Operating Company	1998	1999	2000	2001	2002	2003
Median Year	NPE	1997	1997	1998	1998	1999	2000
	Operating Company	1999	2000	2000	2002	2002	2002

Patent Marketplace Report

Portfolios Offered to RPX Steady

Chart 1: Portfolios Offered

A steady volume of portfolios has been offered to RPX year to year, with a slight bump in 2013 (20% over the five-year average).

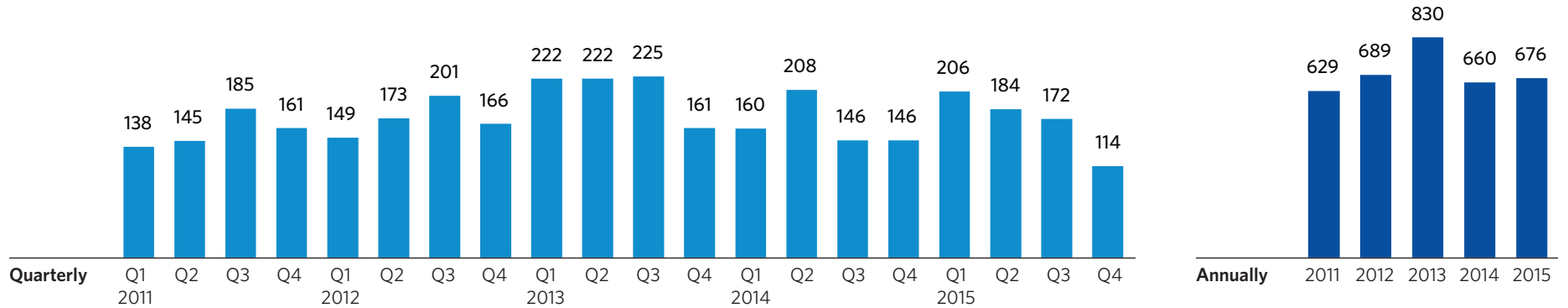
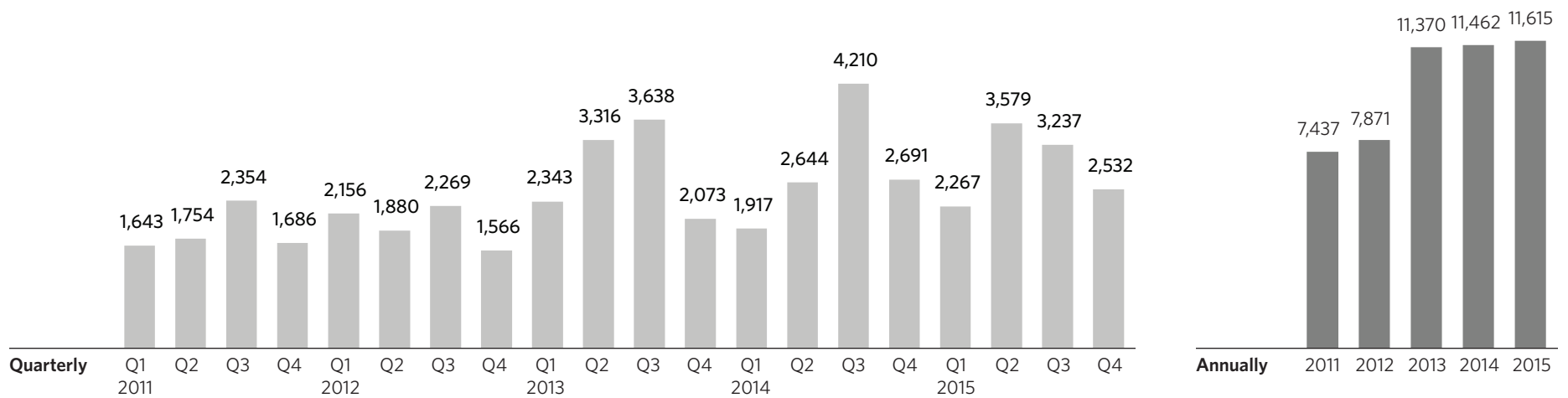


Chart 2: Patents Offered

The number of patents offered to RPX in the last three years has markedly increased (+50%).

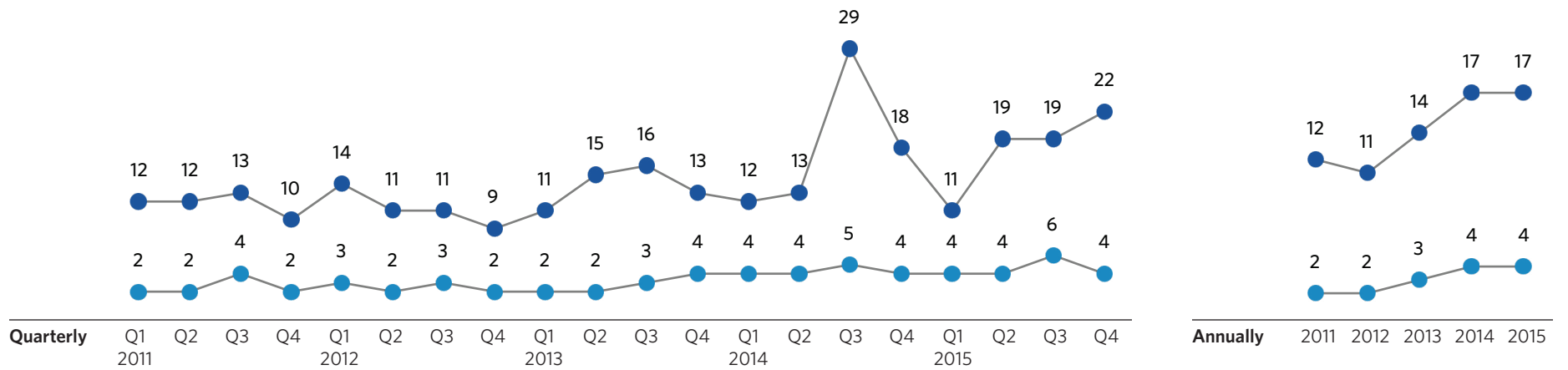


Bigger Average Portfolio Size Steady

Chart 3: Average Patent Portfolio Sizes by Offer Date

Patent portfolio size has increased somewhat in the last few years. This is also reflected in the charts above that show steady portfolio offerings and higher patent offerings. That said, large individual offerings can move the overall average significantly, especially quarter to quarter.

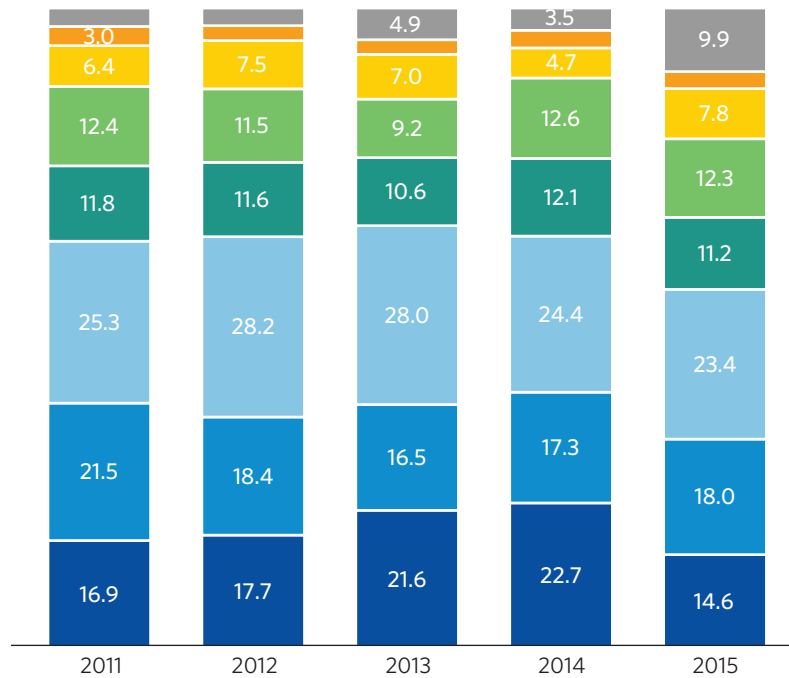
- Average Patent Portfolio Size
- Median Patent Portfolio Size



Broad Mix of Primary Market Sectors on Open Market

Chart 4: Portfolios Offered by Primary Market Sector (Percent)

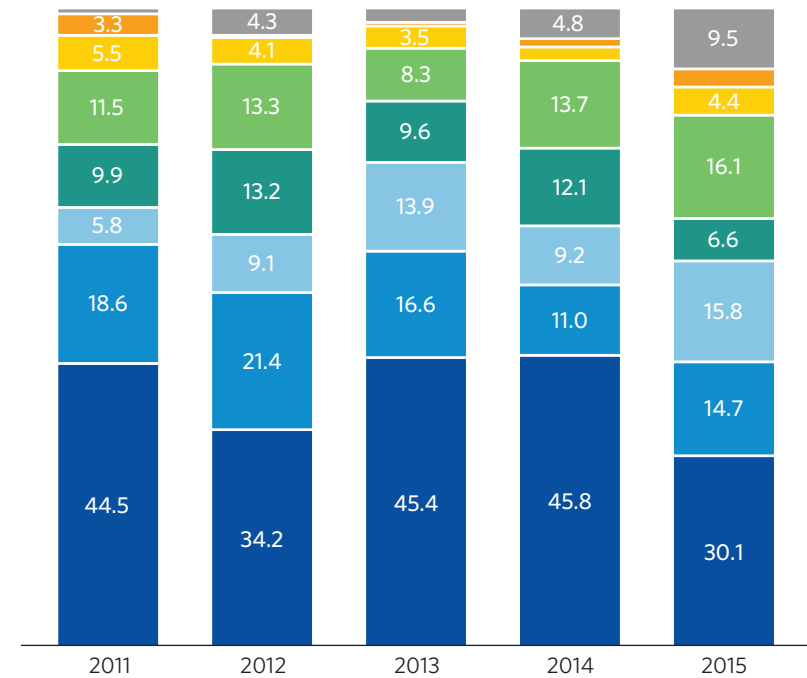
RPX continues to see a mix of technology offerings, about a quarter of which come from E-commerce and Software.



Larger Semiconductor Portfolios Offered on Open Market

Chart 5: Patents Offered by Primary Market Sector (Percent)

Because Semiconductor portfolio offerings are larger on average, offerings at the patent level are more concentrated in that sector.



- Semiconductors
- Mobile Communications and Devices
- E-commerce and Software
- Networking
- Consumer Electronics and PCs
- Media Content and Distribution
- Financial Services
- Other

Initial Seller Asking Price: Volatile Average, Steady Median

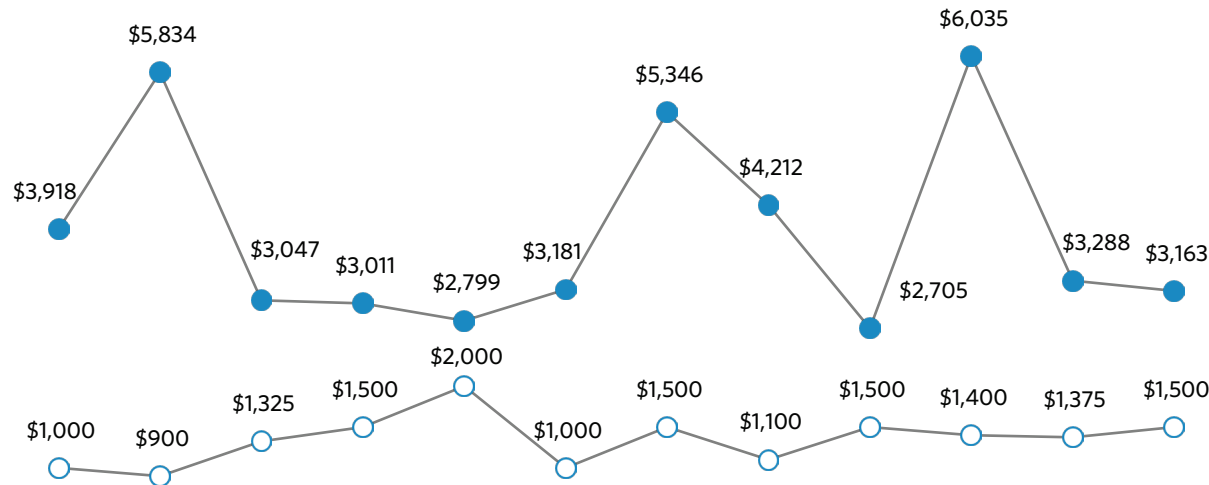
Chart 6: Average Initial Seller Asking Price per Portfolio Offered (\$000)

Average initial seller asking prices have fluctuated quarter-to-quarter and year-to-year. Median prices have varied between \$900 thousand and \$2 million, but were more stable in 2015.

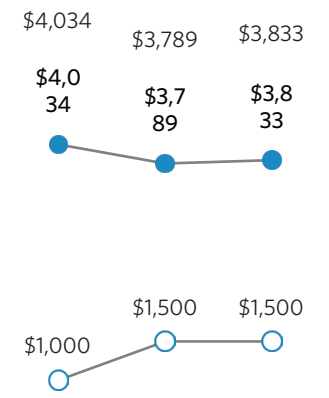
Methodology Note:

Note that a small number of portfolios with large asking prices can drive up the average in a given quarter. Approximately 20% of all portfolios offered to RPX do not have an initial seller asking price. Portfolios without pricing guidance are not taken into account for analyses of initial seller asking prices.

- Average Initial Asking Price
- Median Initial Asking Price



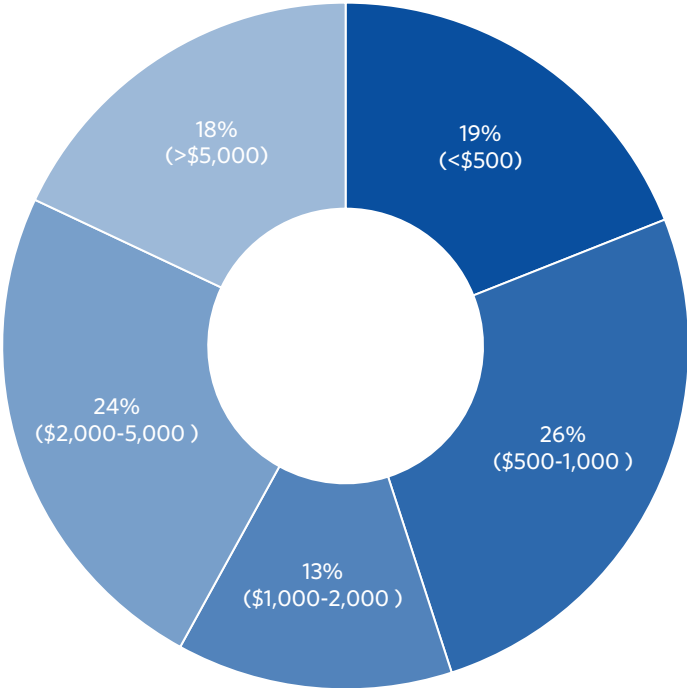
Quarterly	Q1 2013	Q2	Q3	Q4	Q1 2014	Q2	Q3	Q4	Q1 2015	Q2	Q3	Q4
Average Initial Asking Price (\$000)	\$3,918	\$5,834	\$3,047	\$3,011	\$2,799	\$3,181	\$5,346	\$4,212	\$2,705	\$6,035	\$3,288	\$3,163
Median Initial Asking Price (\$000)	\$1,000	\$900	\$1,325	\$1,500	\$2,000	\$1,000	\$1,500	\$1,100	\$1,500	\$1,400	\$1,375	\$1,500
Number of Portfolios	182	189	178	140	138	183	124	130	172	151	140	93



Annually	2013	2014	2015
Average Initial Asking Price (\$000)	\$4,034	\$3,789	\$3,833
Median Initial Asking Price (\$000)	\$1,000	\$1,500	\$1,500
Number of Portfolios	689	575	556

Even Mix of Asking Prices, but Most Under \$2 Million

Chart 7: Mix of Portfolios Offered in 2013 - 2015 by Initial Seller Asking Price (\$000)
Most portfolios offered had an initial asking price under \$2 million.



Asking Price per Portfolio, \$000

Table 8: Top Ten Highest Volume Brokers—Last Three Years

The top ten brokers by volume of portfolios offered accounted for 26% of all portfolios offered in the last three years.

Broker	Portfolios Offered
Iceberg Innovation	108
IPInvestments Group	78
Global IP Law Group, LLC	62
IPOfferings LLC	62
Tynax Inc.	51
Adapt IP Ventures, LLC	50
Munich Innovation Group GmbH	44
Quinn Pacific	44
ICAP-oceantomo	39
Red Chalk Group	33
Top Ten Broker Total	571
Overall Total	2166

Table 9: Top Ten Highest Volume Brokers—Last 12 Months

The top ten brokers last year accounted for 25% of all portfolios offered in 2015.

Broker	Portfolios Offered
Iceberg Innovation	24
IPInvestments Group	24
IPOfferings LLC	20
Global IP Law Group, LLC	18
Adapt IP Ventures, LLC	17
Reliance Capital	16
Munich Innovation Group GmbH	14
IP Pioneer Group	13
TechInsights	13
Quinn Pacific	12
Top Ten Broker Total	171
Overall Total	676

Year 2002: Average Priority of Portfolios Offered in 2015

Chart 10: Average Priority Year of Offered Portfolios by Market Sector

The priority years of offered patents continued to inch forward in 2015. Most portfolios offered continue to come from the late 1990s or early 2000s, though RPX typically sees older patents from some technology sectors (Semiconductor) than from others (Media).

Methodology Note:

For each portfolio, the minimum priority year of patents offered is considered. For example, if Portfolio A had five patents with Priority Years 2000, 2001, 2002, 2003, and 2004, the portfolio priority year is 2000.

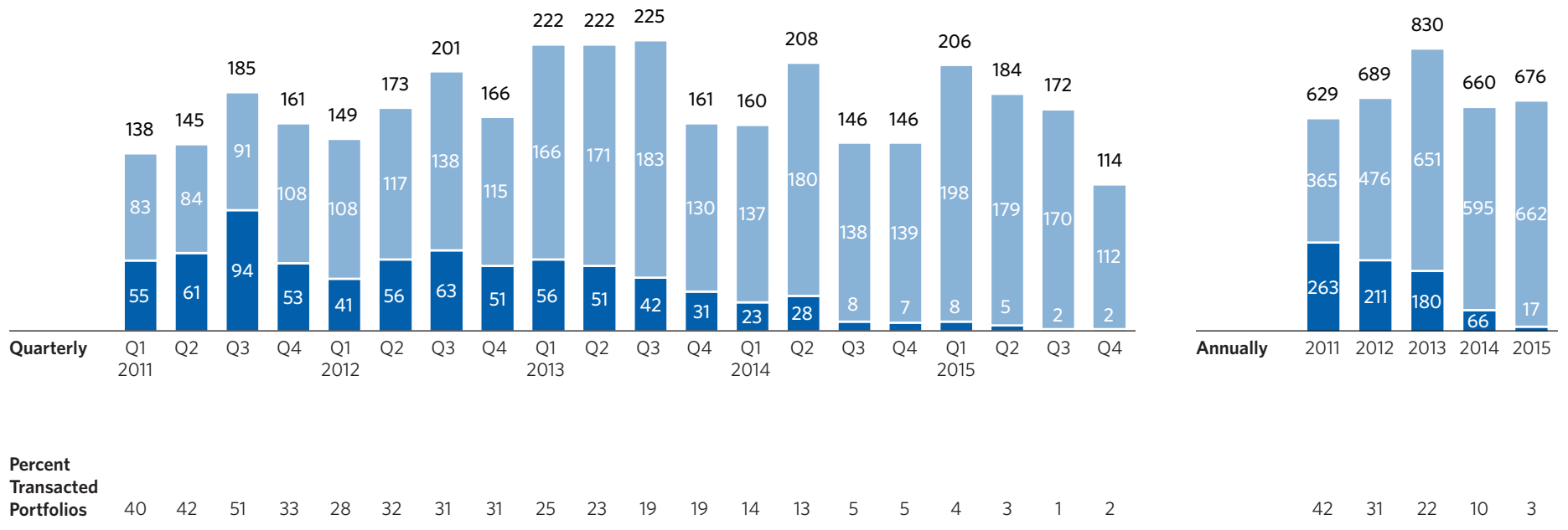
Market Sector	Year Portfolio Offered	2011	2012	2013	2014	2015
Consumer Electronics and PCs	2000	2000	2000	2000	2002	2002
E-commerce and Software	2001	2002	2002	2002	2002	2003
Financial Services	2001	2002	2002	2002	2002	2003
Media Content and Distribution	1999	2001	2003	2003	2003	2003
Mobile Communications and Devices	1999	2000	2001	2001	2003	2003
Networking	2000	2000	2000	2000	1999	2001
Semiconductors	1997	1999	1999	1999	1999	2001
Overall Average	1999	2000	2001	2001	2001	2002
Overall Median	2000	2000	2000	2000	2001	2003

Chart 11: Transacted Portfolios by Offer Date

2013 shows a lower transaction rate (22%) than 2011 - 2012 (31 - 42%). However, transactions typically take at least six months to a year to complete, and many take longer (Charts 14 and 15). This might affect some straggling 2013 offerings, though most of those would have transacted by now, if at all.

2014 - 2015 offerings, on the other hand, are more recent; their ostensibly low transaction rate is largely an artifact of the lag for marketing, transaction, and recordation, rather than the signal of a broad decrease in patent transaction activity.

■ Non-transacted Portfolios
 ■ Transacted Portfolios
 (Record date of 02.16.16 or earlier)



Transacted Patents

Chart 12: Transacted Patents by Offer Date

Patent offerings followed a similar transaction pattern: a decrease in transaction rate for 2013, though some offers might be straggling.

As for portfolios, lower transaction rates for recent patent-level offerings likely result from the lag for marketing, transaction, and recordation rather than from a broad decrease in patent transaction activity.

Methodology Note:

Transacted patents are generally attributed to a specific portfolio offering, although they might appear in multiple offerings.

- Non-transacted Patents
- Transacted Patents (Record date of 02.16.16 or earlier)

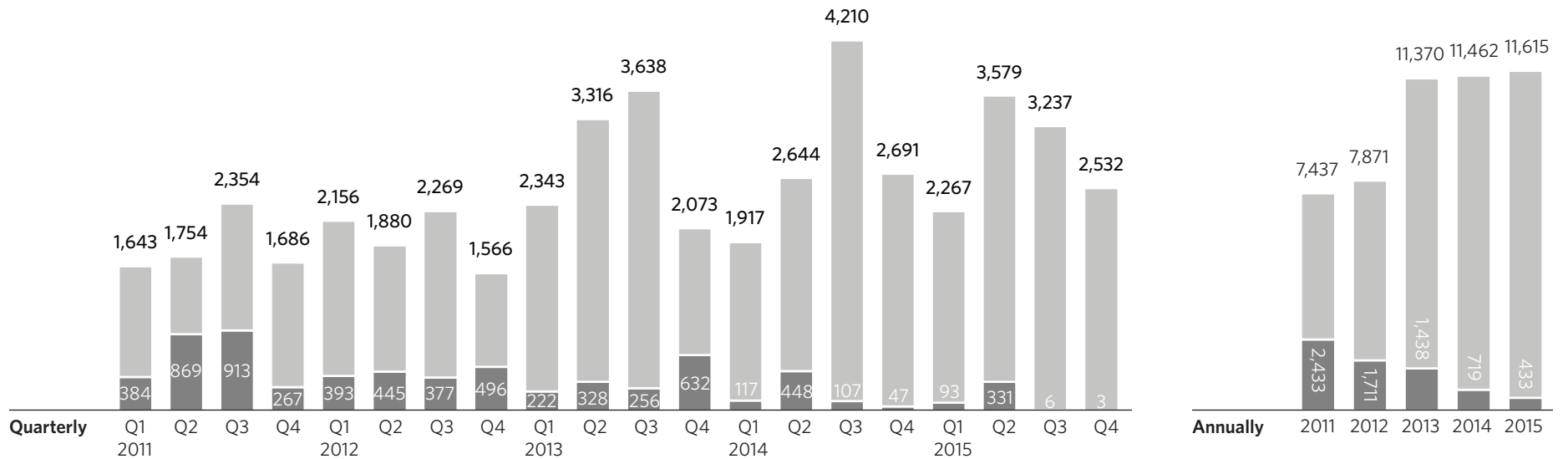


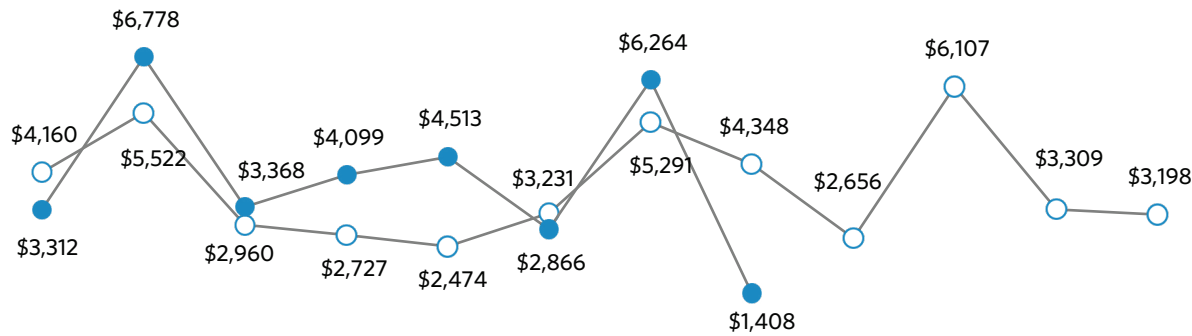
Chart 13: Average Initial Seller Asking Prices, Transacted Portfolios

The average initial seller asking prices of transacted portfolios dipped in the latter half of 2014 and in 2015. But again, 2014 and 2015 offerings are too recent for the transaction rate to have fully matured. Future reports will likely show movement in these averages.

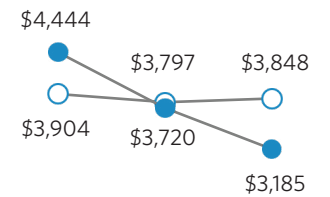
Methodology Note:

Due to small N, we do not report initial asking prices by quarter for transacted portfolios that were offered in 2015.

- Average Asking Price Transacted Portfolios
- Average Asking Price Non-transacted Portfolios



Quarterly	Q1 2013	Q2	Q3	Q4	Q1 2014	Q2	Q3	Q4	Q1 2015	Q2	Q3	Q4
Transacted	52	47	38	29	22	25	7	6	-	-	-	-
Non-trans	130	142	140	111	116	158	117	124	166	147	139	91



Annually	2013	2014	2015
Transacted	166	60	13
Non-trans	523	515	543

Aggregate Transaction Latency of Portfolios: Six Months to One Year

Chart 14: Average Elapsed Times from Portfolio Offering to Execution to Recordation (in Days)

Portfolios offered in 2011 – 2013 took an average of 230 days to transact. The average decreased in more recent years, but the decrease reflects the shorter passage of time since more recent portfolios were offered.

- Average Time from Offer Date to Execution Date
- Average Time from Execution Date to Record Date

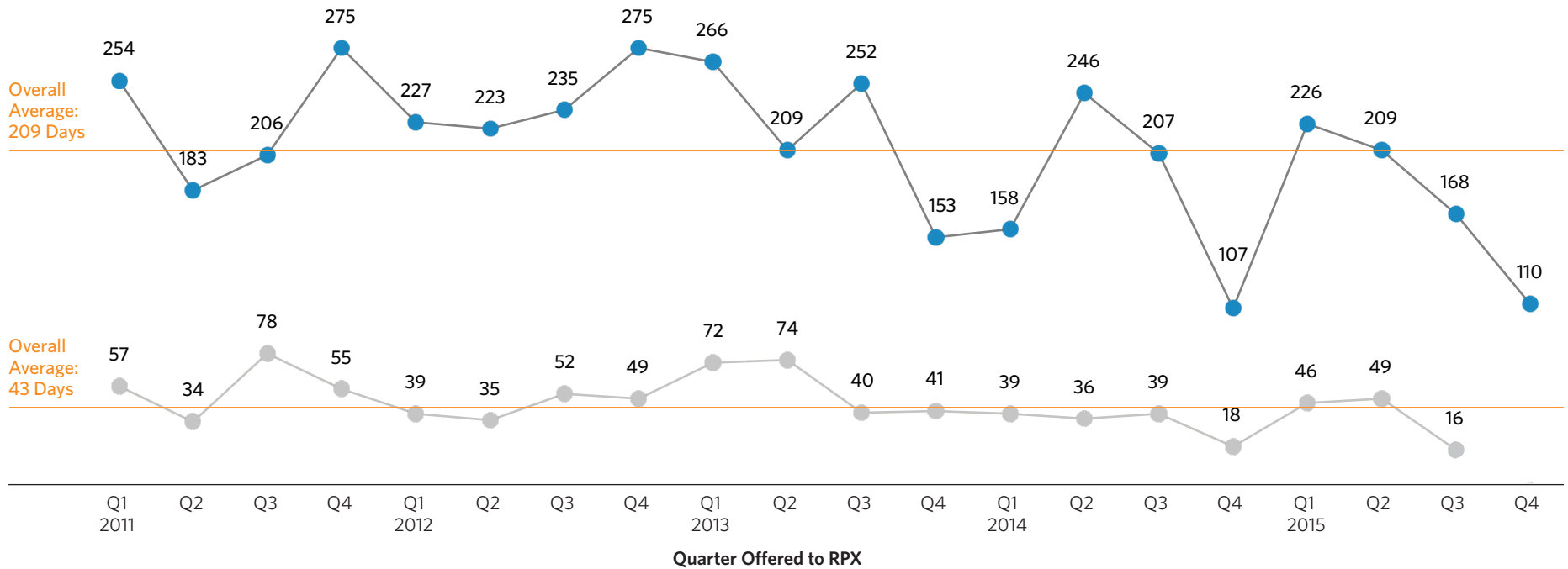
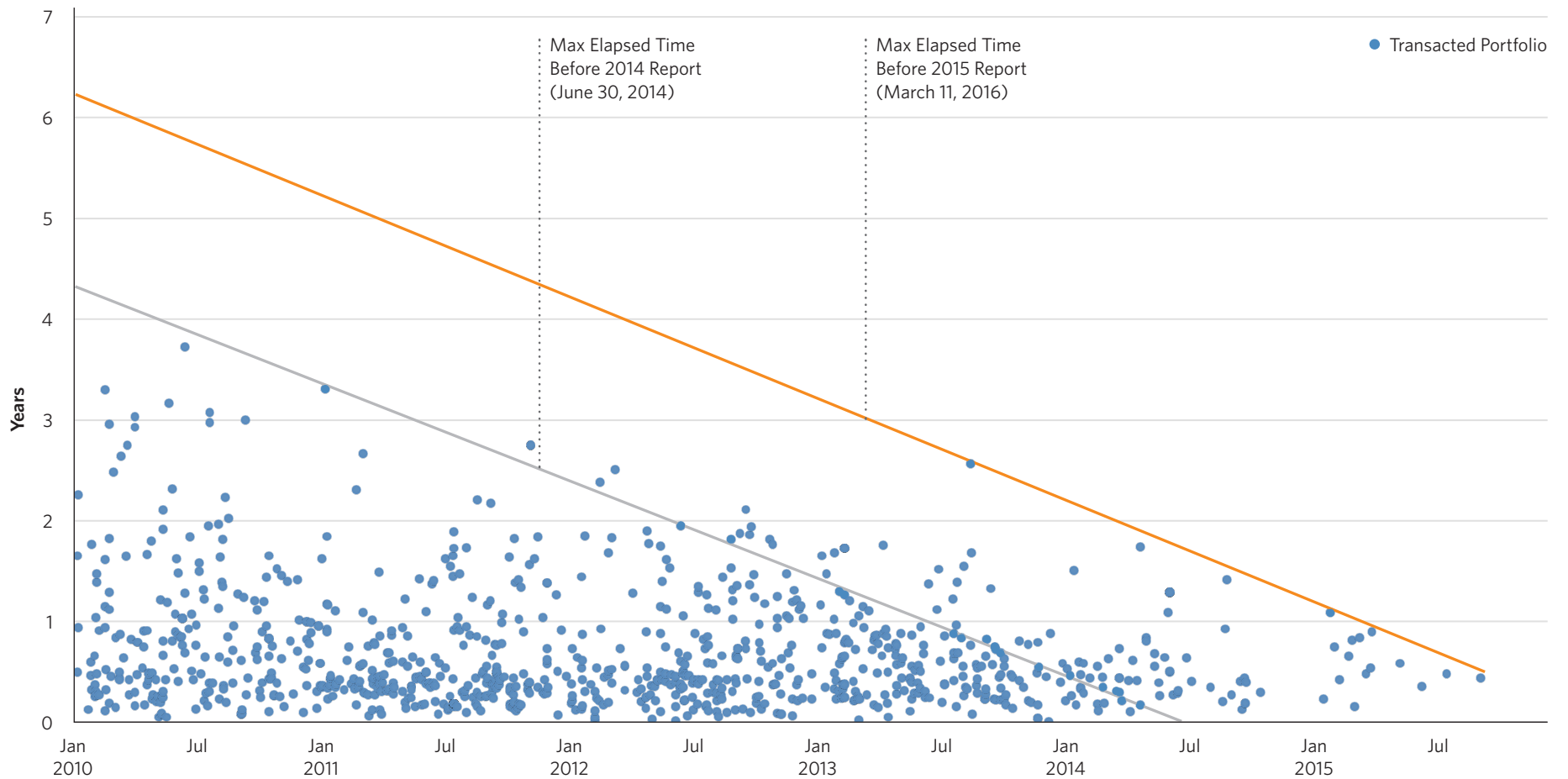


Chart 15: Elapsed Time from Portfolio Offering to Execution

Seventy-nine percent of transacted portfolios were transacted in under one year, and 52% were transacted within six months of being offered to RPX.

In more recent years, the analysis window, by nature, can observe only faster transactions. Thus, this year's analysis shows more transactions from 2012 - 2014 than were reflected in last year's report. The graph illustrates both analysis windows—last year's and this year's—to show which transactions were newly observed.



Portfolio Transaction Latency by Sector

**Chart 16: Average Elapsed Time from Date Offered to RPX
Until Execution Date (in Days)**

Again, most transactions take six months to one year to complete. Transaction latency overall does not vary greatly from year to year, though it can vary by sector within a given year.

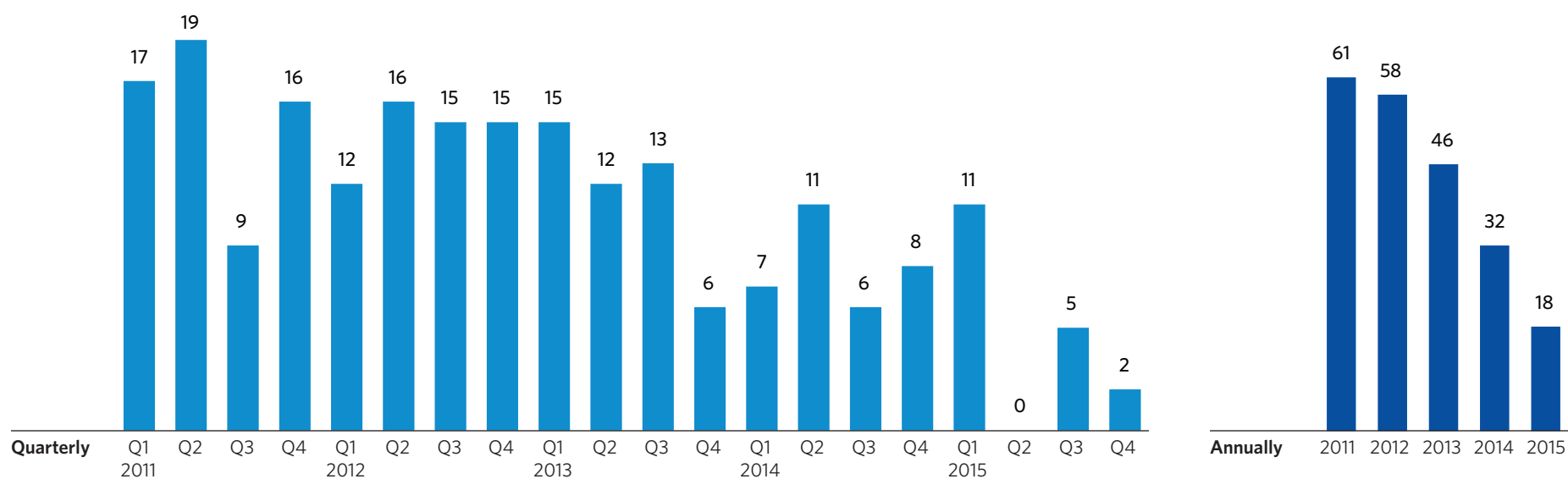
Market Sector	Year Portfolio Offered				
	2011	2012	2013	2014	2015
Consumer Electronics and PCs	278	260	235	146	274
E-commerce and Software	217	223	237	189	232
Financial Services	240	356	191	383	214
Media Content and Distribution	212	218	219	134	92
Mobile Communications and Devices	242	251	273	144	120
Networking	268	227	182	147	221
Semiconductors	162	221	199	245	177
Other	240	389	242	62	196
Overall Average	225	240	227	196	201
Overall Median	147	169	196	156	177

Chart 17: Portfolios Contributing to NPE Campaigns by Offer Date

Since 2011, a total of 212 unique NPE Campaigns affecting 2,423 campaign defendants have come from portfolios observed among open market offerings. Note that an additional latency between transaction date and assertion date accounts for lower litigation rates in more recent years.

Methodology Note:

RPX considers a portfolio to result in an NPE Campaign if at least one patent offered in a portfolio is asserted. Please note that a single portfolio can result in multiple campaigns and that a single campaign can include asserted patents from multiple portfolios.



Market Sector	Year Portfolio Offered					Overall
	2011	2012	2013	2014	2015	
Unique NPE Campaigns from Portfolios	65	65	51	32	18	212
Total Unique Patents from Portfolios	107	117	84	55	37	377
Unique Defendants	404	448	359	256	163	1,137
Total Defendants	619	699	546	344	215	2,423

Life of the Average Transacted Patent Litigated by NPE

Chart 18: Average Time to Transaction (Execution Date) and First Assertion

On average, open market portfolios asserted by NPEs take a little less than a year to transact, and another year to be asserted in litigation.

When dissected by assertion year, the average latency appears to show that more recent NPE assertions took longer to transact and then litigate. However, this is likely an artifact of the observation: RPX's visibility into market offerings has increased in the last few years, and so our view into older assertions (e.g. 2011) is necessarily biased toward offerings with shorter latencies between offering, transaction, and assertion.

Methodology Note:

RPX looked at 326 unique patents that resulted in 132 unique campaigns that met the following criteria:

- offered to RPX in the open market;
- transacted to an NPE; and
- litigated after the transaction date with a first file date in the year illustrated.

Average Time to Transaction (Execution Date) and First Assertion



Average Life of a Patent, Including Priority Year



A: Patent Priority Year **B:** Portfolio Offer Date **C:** Portfolio Transaction to NPE **D:** First Case in NPE Campaign Filed

Semiconductor Portfolios Offered to RPX

Chart 19: Portfolios Offered

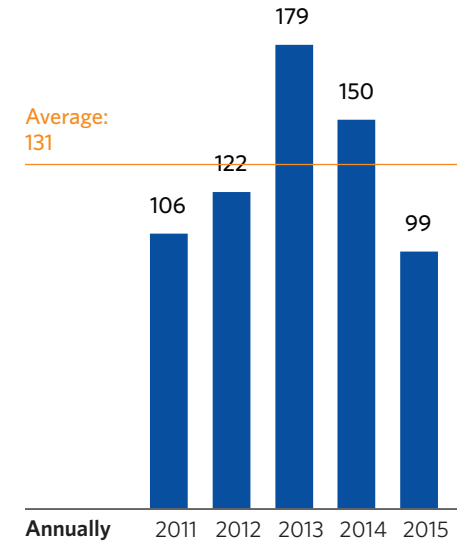
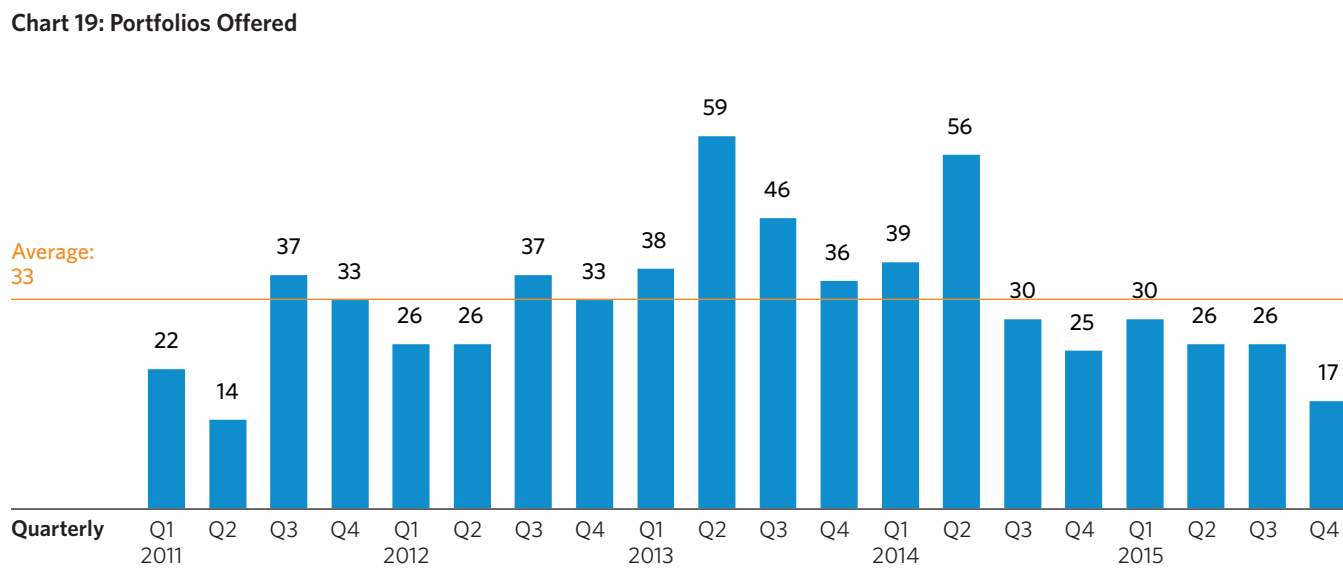
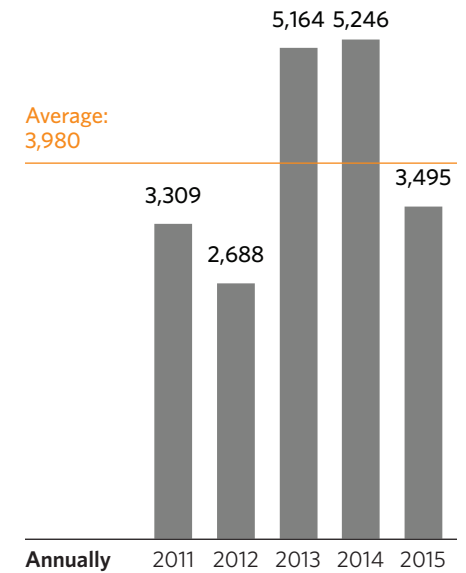
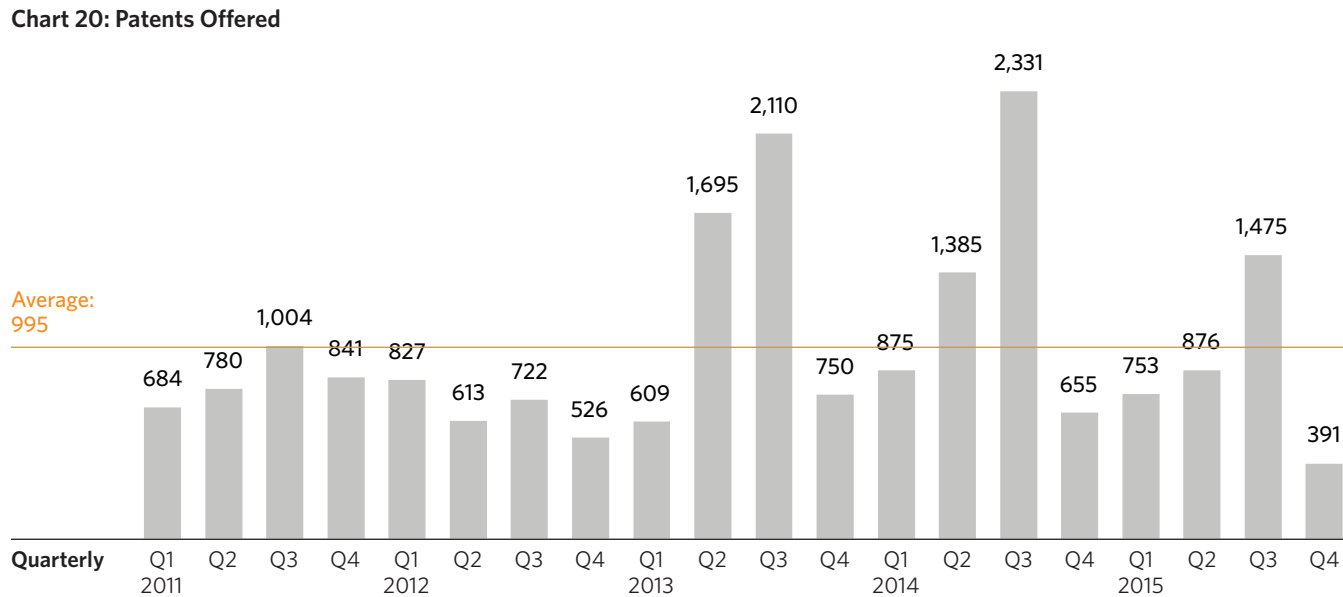
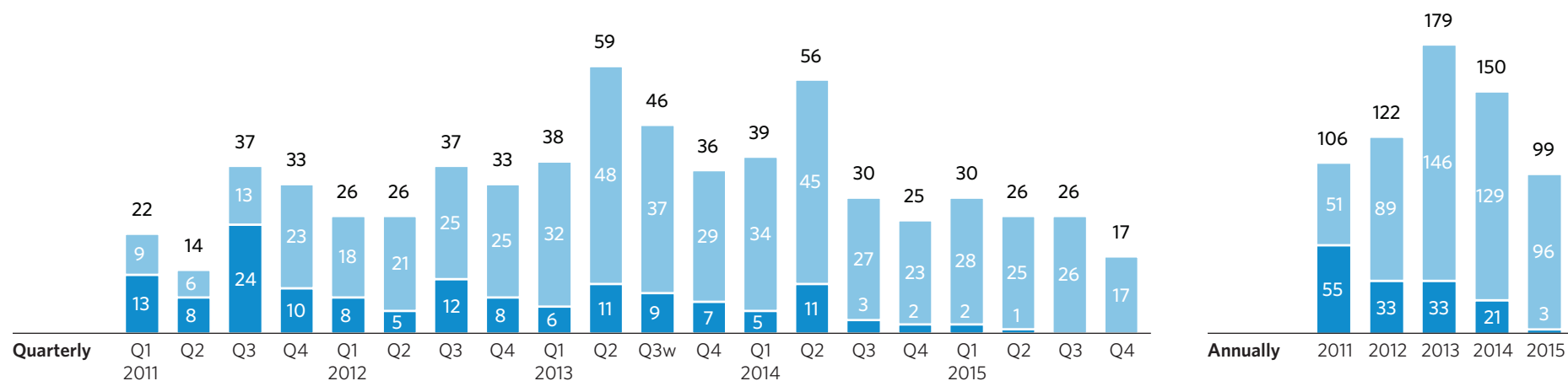


Chart 20: Patents Offered



Semiconductor Transaction Metrics

Chart 21: Portfolios Transacted



Summary Statistics

	Year Portfolio Offered				
	2011	2012	2013	2014	2015
Average Patents per Portfolio Offered	31	22	29	35	35
Median Portfolio Size	12	6	8	9	16
Percent of Offered Portfolios Transacted	52	28	18	14	3
Average Elapsed Time from Offering to Transaction (Days)	162	221	199	245	177
Average Priority Date of Offered Portfolios (Year)	1997	1999	1999	1999	2001
Average Initial Seller Asking Price per Portfolio Offered (\$000s)	\$2,775	\$4,685	\$4,866	\$3,833	\$3,295
Average Initial Seller Asking Price per Patent Offered (\$000s)	\$313	\$753	\$456	\$515	\$495
Median Initial Seller Asking Price per Portfolio Offered (\$000s)	\$2,000	\$1,800	\$1,700	\$2,000	\$2,000
Median Initial Seller Asking Price per Patent Offered (\$000s)	\$280	\$250	\$150	\$165	\$129

Mobile Communications and Devices Portfolios Offered to RPX

Chart 22: Portfolios Offered

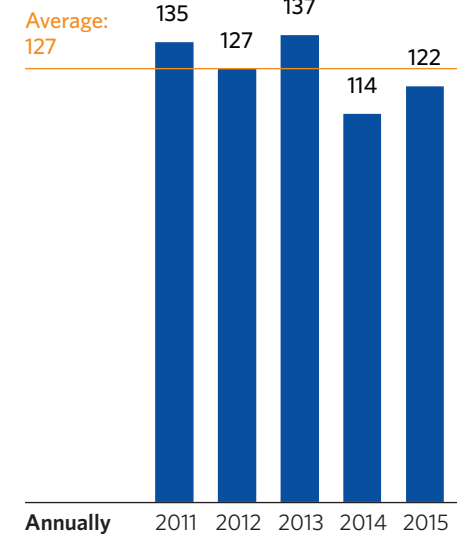
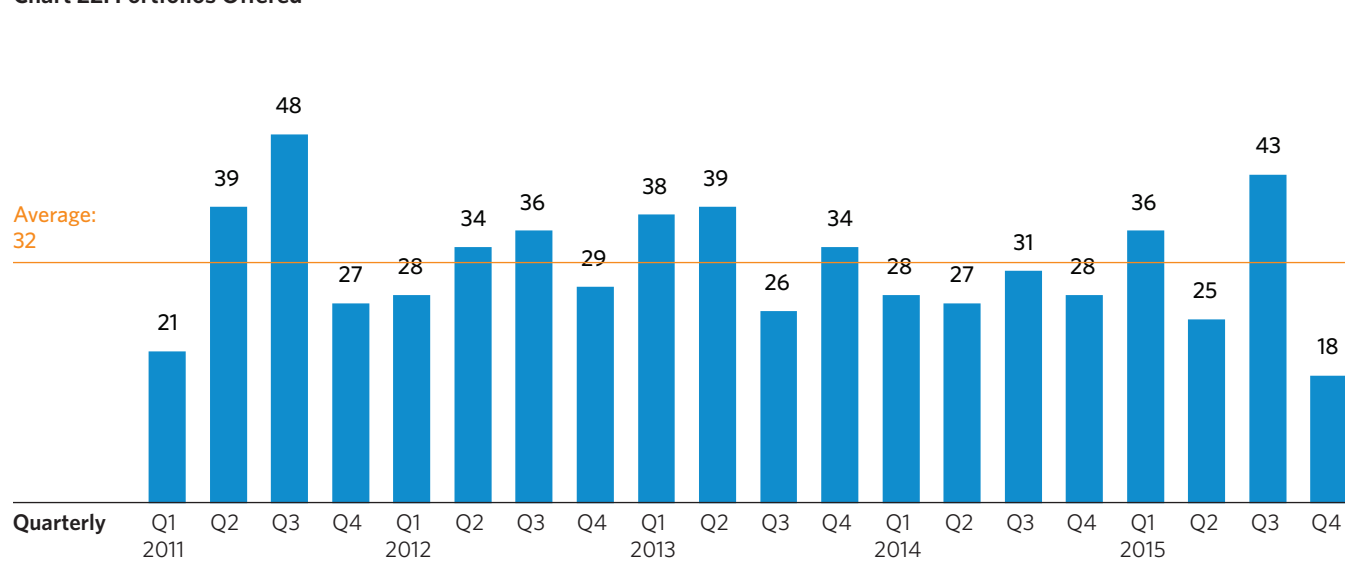
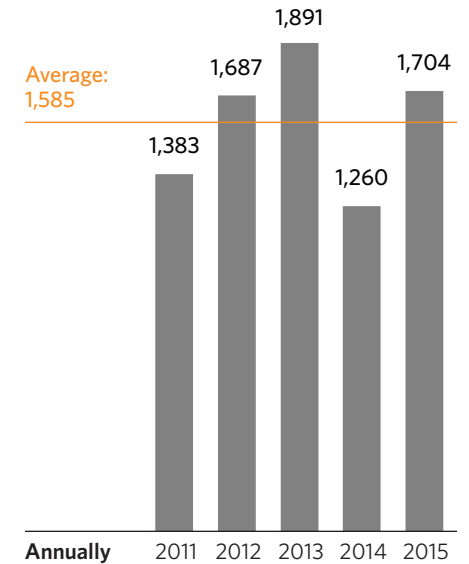
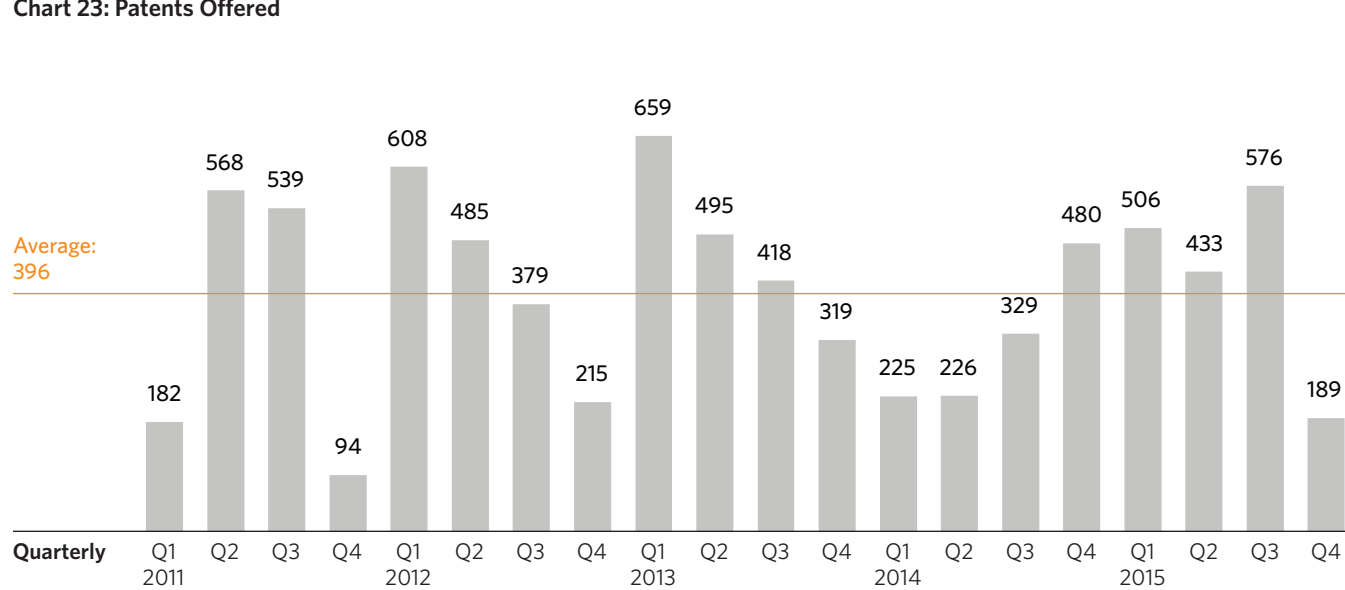
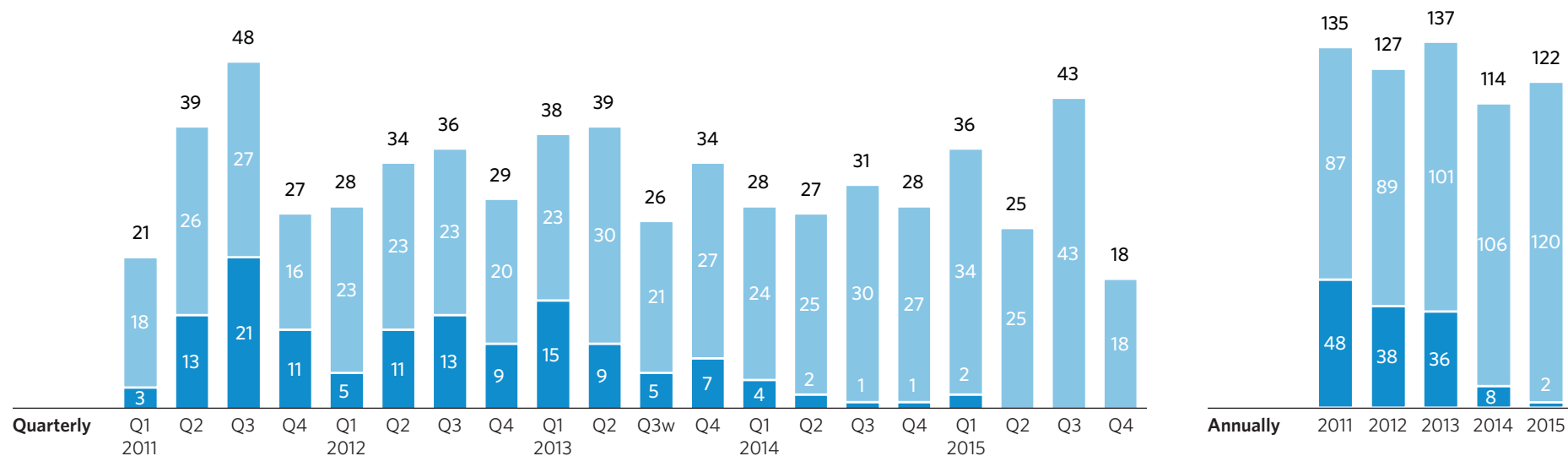


Chart 23: Patents Offered



Mobile Communications and Devices Transaction Metrics

Chart 24: Portfolios Transacted



Summary Statistics

	Year Portfolio Offered				
	2011	2012	2013	2014	2015
Average Patents per Portfolio Offered	10	13	14	11	14
Median Portfolio Size	3	3	3	4	5
Percent of Offered Portfolios Transacted	36	30	26	7	2
Average Elapsed Time from Offering to Transaction (Days)	242	251	273	144	120
Average Priority Date of Offered Portfolios (Year)	1999	2000	2001	2003	2003
Average Initial Seller Asking Price per Portfolio Offered (\$000s)	\$2,583	\$4,837	\$3,759	\$4,604	\$4,543
Average Initial Seller Asking Price per Patent Offered (\$000s)	\$679	\$877	\$876	\$761	\$549
Median Initial Seller Asking Price per Portfolio Offered (\$000s)	\$1,000	\$2,000	\$2,000	\$1,675	\$1,500
Median Initial Seller Asking Price per Patent Offered (\$000s)	\$450	\$500	\$400	\$363	\$279

E-commerce and Software Portfolios Offered to RPX

Chart 25: Portfolios Offered

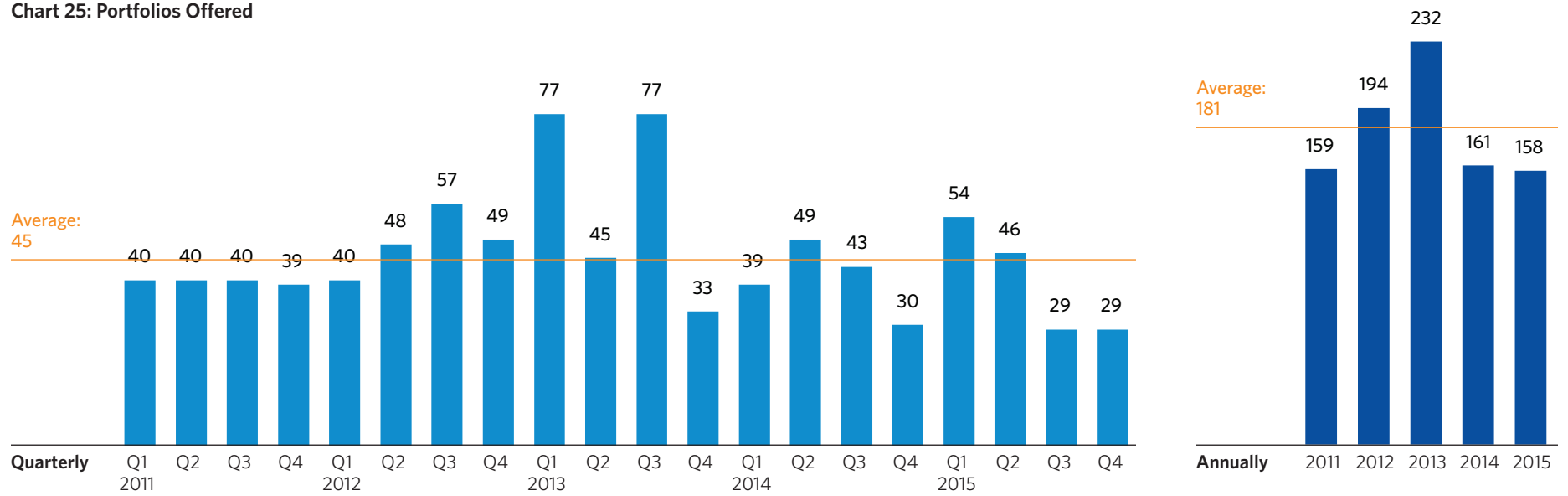
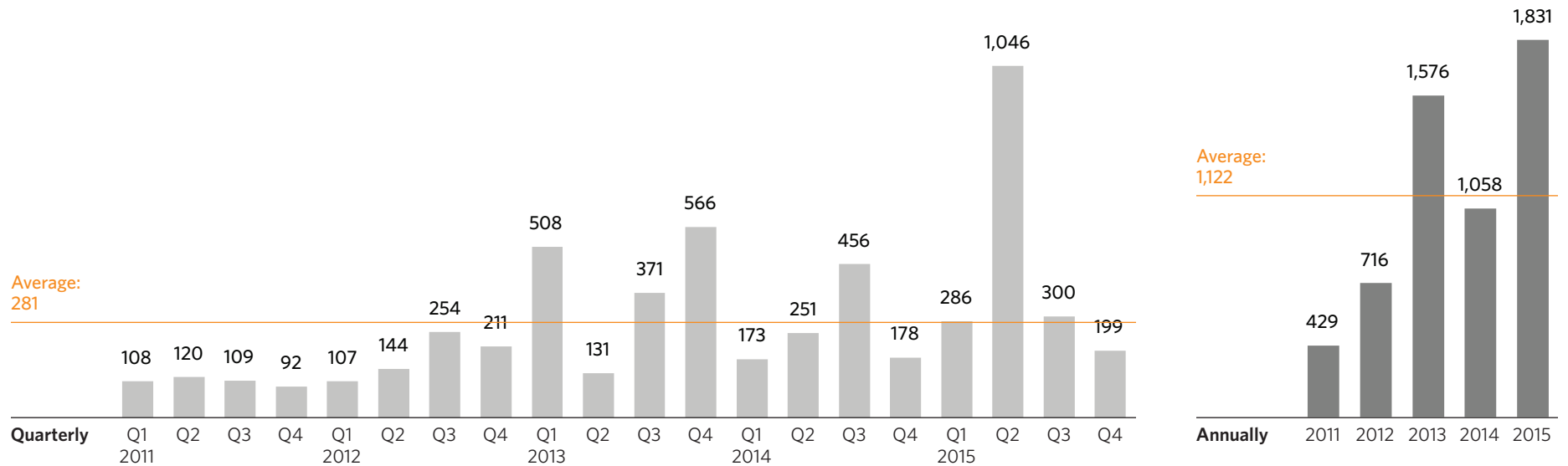
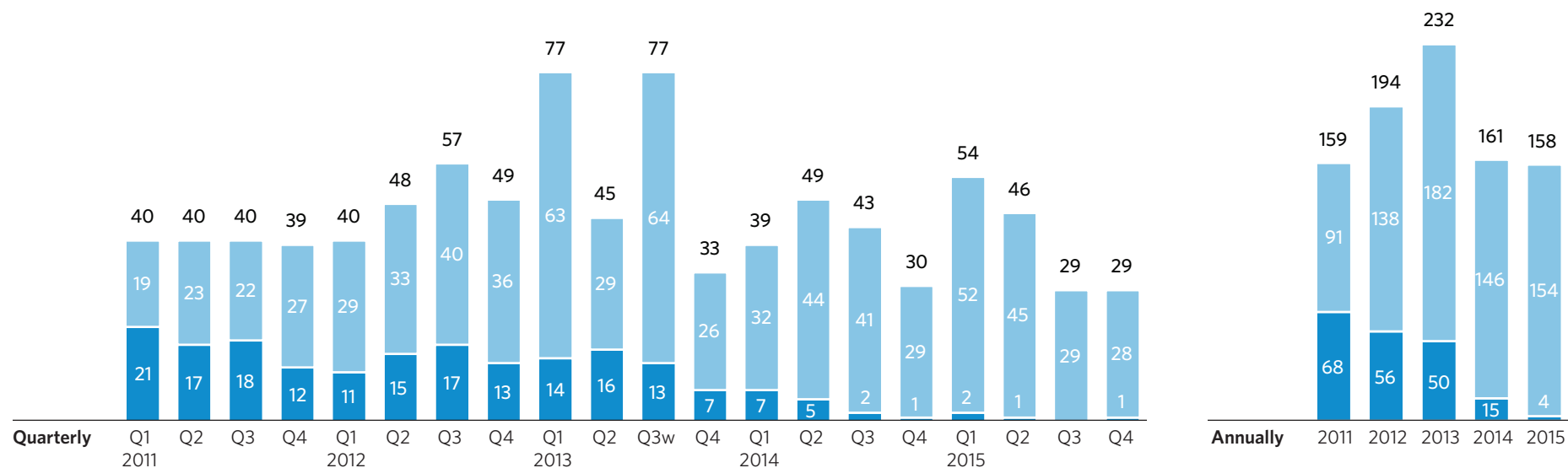


Chart 26: Patents Offered



E-commerce and Software Transaction Metrics

Chart 27: Portfolios Transacted



Summary Statistics

	Year Portfolio Offered				
	2011	2012	2013	2014	2015
Average Patents per Portfolio Offered	3	4	7	7	12
Median Portfolio Size	1	1	2	2	2
Percent of Offered Portfolios Transacted	43	29	22	9	3
Average Elapsed Time from Offering to Transaction (Days)	217	223	237	189	232
Average Priority Date of Offered Portfolios (Year)	2001	2002	2002	2002	2003
Average Initial Seller Asking Price per Portfolio Offered (\$000s)	\$4,302	\$2,496	\$2,892	\$2,609	\$6,012
Average Initial Seller Asking Price per Patent Offered (\$000s)	\$2,335	\$1,411	\$983	\$886	\$747
Median Initial Seller Asking Price per Portfolio Offered (\$000s)	\$700	\$1,250	\$850	\$925	\$913
Median Initial Seller Asking Price per Patent Offered (\$000s)	\$575	\$500	\$416	\$350	\$342

Networking Portfolios Offered to RPX

Chart 28: Portfolios Offered

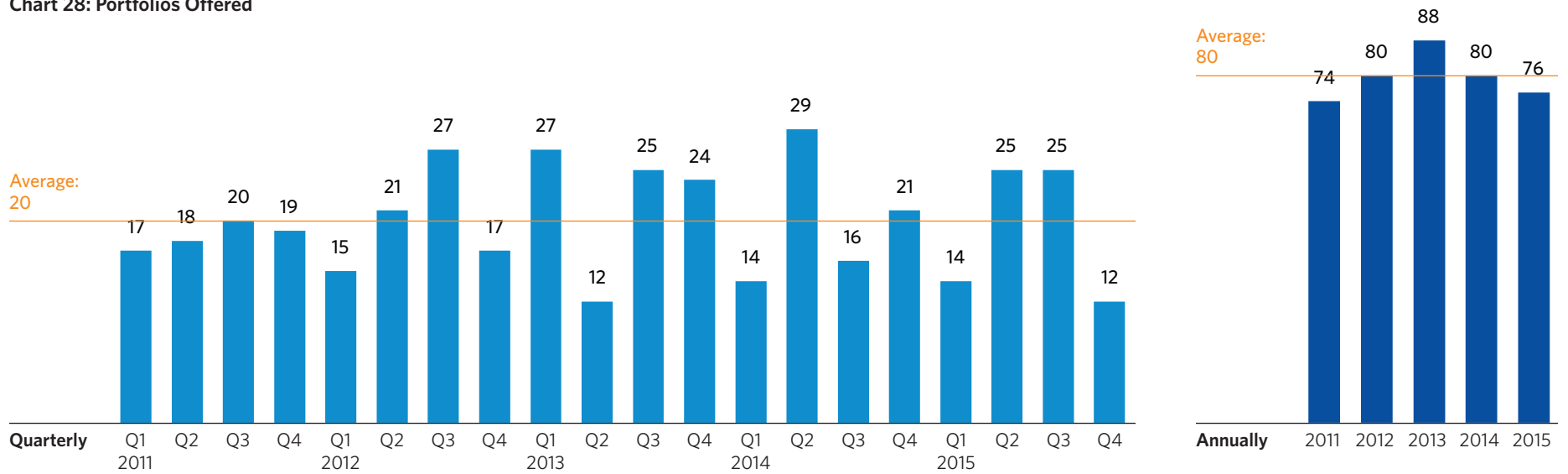
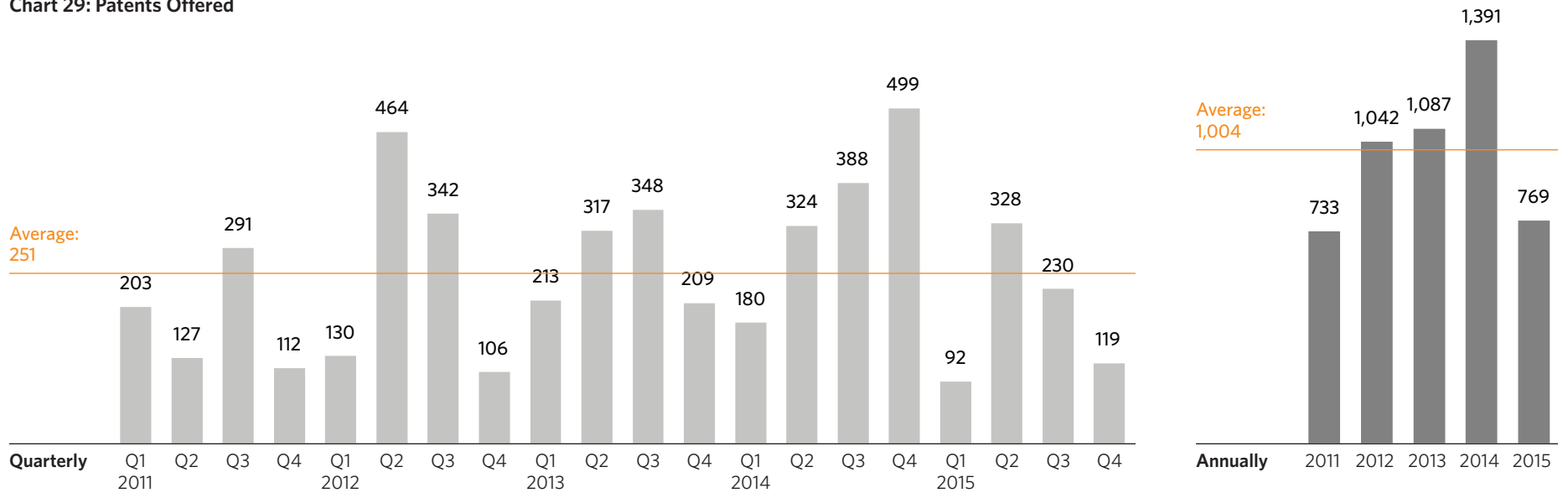
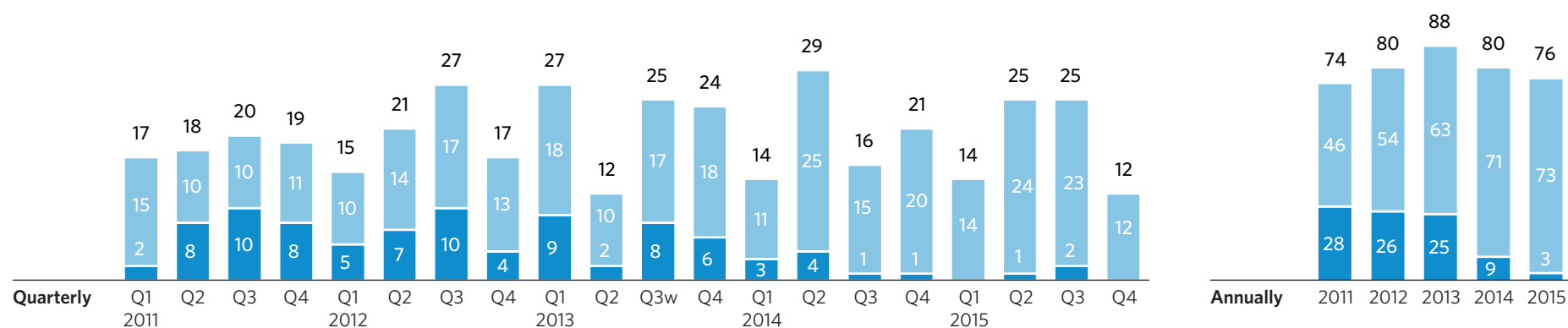


Chart 29: Patents Offered



Networking Portfolios Offered to RPX

Chart 30: Portfolios Transacted



Summary Statistics

	Year Portfolio Offered				
	2011	2012	2013	2014	2015
Average Patents per Portfolio Offered	10	13	12	17	10
Median Portfolio Size	4	4	5	4	5
Percent of Offered Portfolios Transacted	38	33	28	11	4
Average Elapsed Time from Offering to Transaction (Days)	268	227	182	147	221
Average Priority Date of Offered Portfolios (Year)	2000	2000	2000	1999	2001
Average Initial Seller Asking Price per Portfolio Offered (\$000s)	\$1,386	\$2,963	\$7,773	\$8,149	\$1,861
Average Initial Seller Asking Price per Patent Offered (\$000s)	\$300	\$633	\$540	\$905	\$399
Median Initial Seller Asking Price per Portfolio Offered (\$000s)	\$883	\$1,625	\$1,250	\$1,500	\$1,000
Median Initial Seller Asking Price per Patent Offered (\$000s)	\$106	\$278	\$282	\$250	\$227

Consumer Electronics and PCs Portfolios Offered to RPX

Chart 31: Portfolios Offered

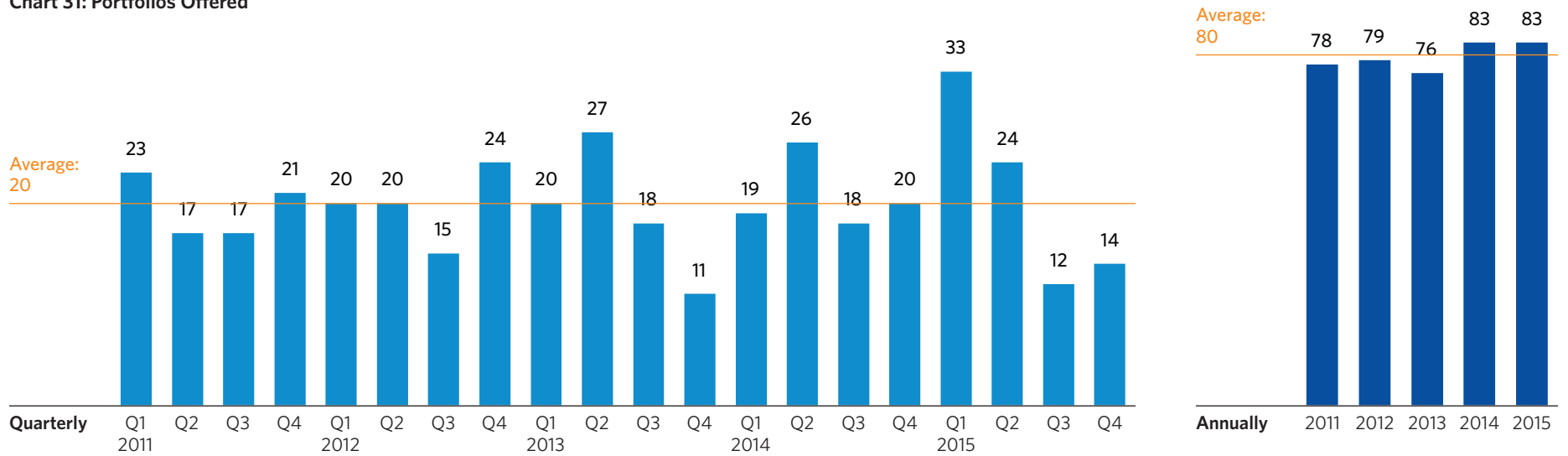
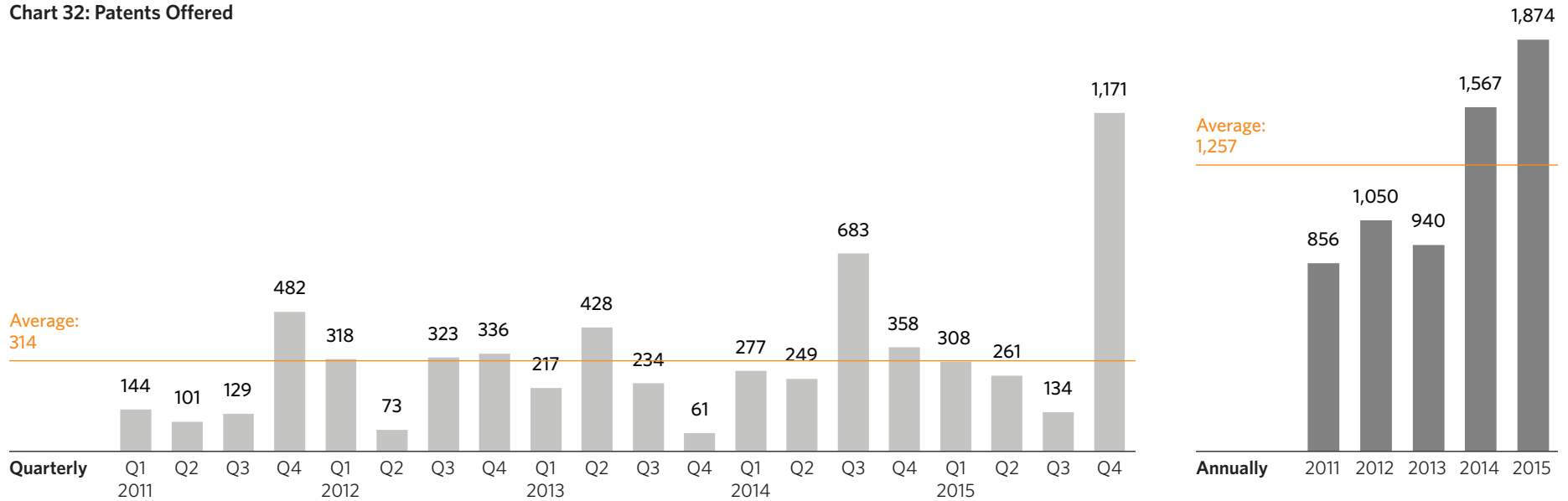
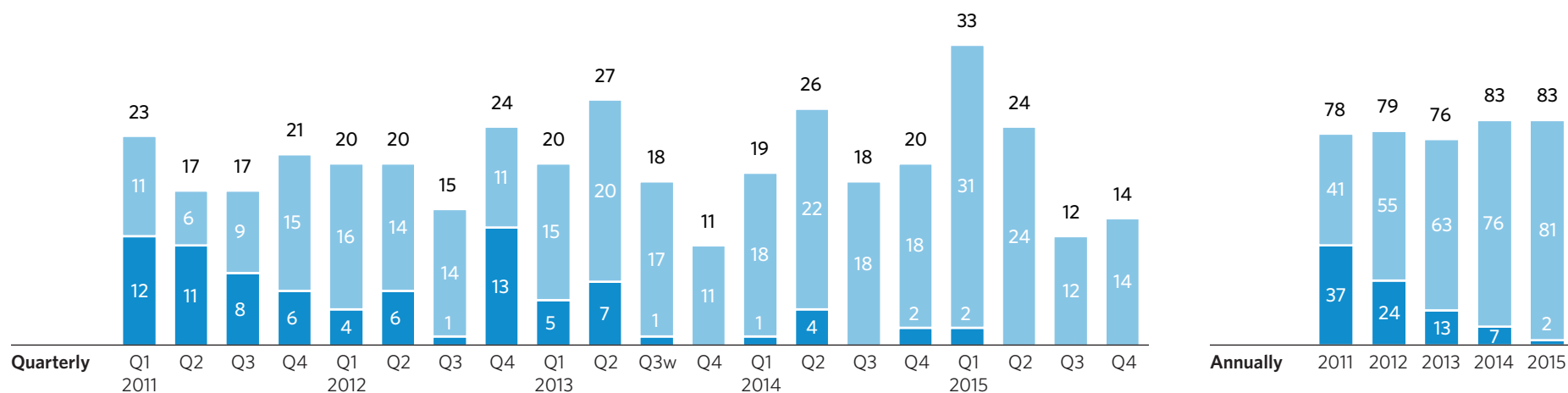


Chart 32: Patents Offered



Consumer Electronics and PCs Transaction Metrics

Chart 33: Portfolios Transacted



Summary Statistics

	Year Portfolio Offered				
	2011	2012	2013	2014	2015
Average Patents per Portfolio Offered	11	13	12	19	23
Median Portfolio Size	2	3	2	3	5
Percent of Offered Portfolios Transacted	47	30	18	8	2
Average Elapsed Time from Offering to Transaction (Days)	278	260	235	146	274
Average Priority Date of Offered Portfolios (Year)	2000	2000	2000	2002	2002
Average Initial Seller Asking Price per Portfolio Offered (\$000s)	\$613	\$2,941	\$3,923	\$1,799	\$2,795
Average Initial Seller Asking Price per Patent Offered (\$000s)	\$473	\$672	\$1,549	\$768	\$517
Median Initial Seller Asking Price per Portfolio Offered (\$000s)	\$600	\$975	\$775	\$775	\$1,450
Median Initial Seller Asking Price per Patent Offered (\$000s)	\$300	\$500	\$301	\$250	\$300

Media Content and Distribution Portfolios Offered to RPX

Chart 34: Portfolios Offered

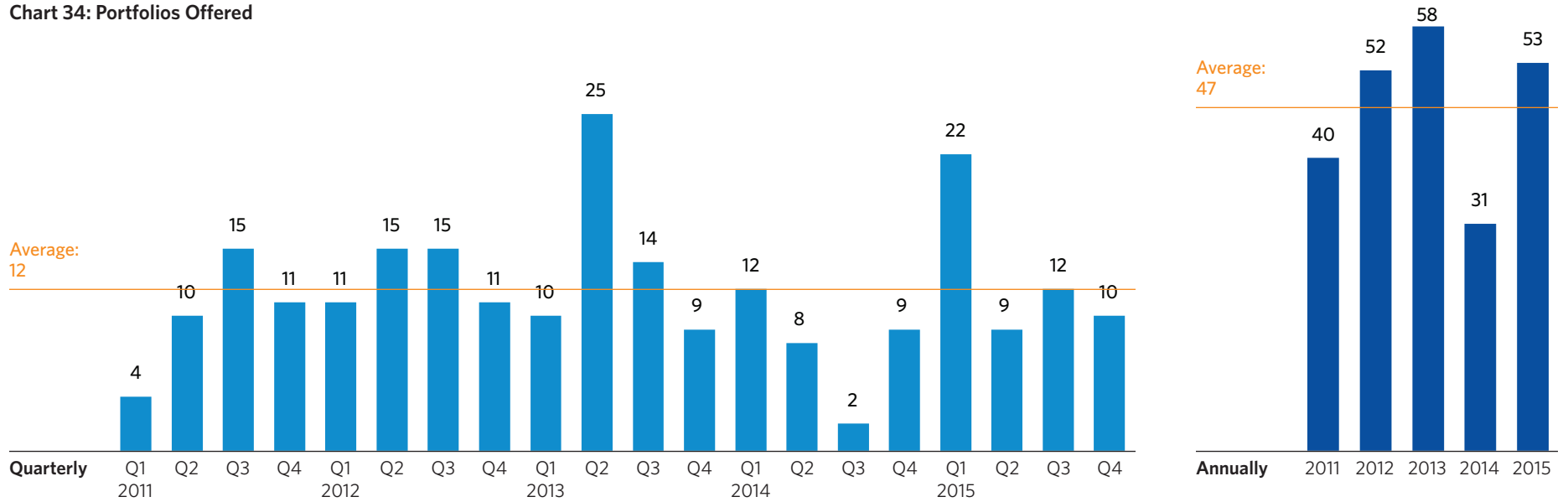
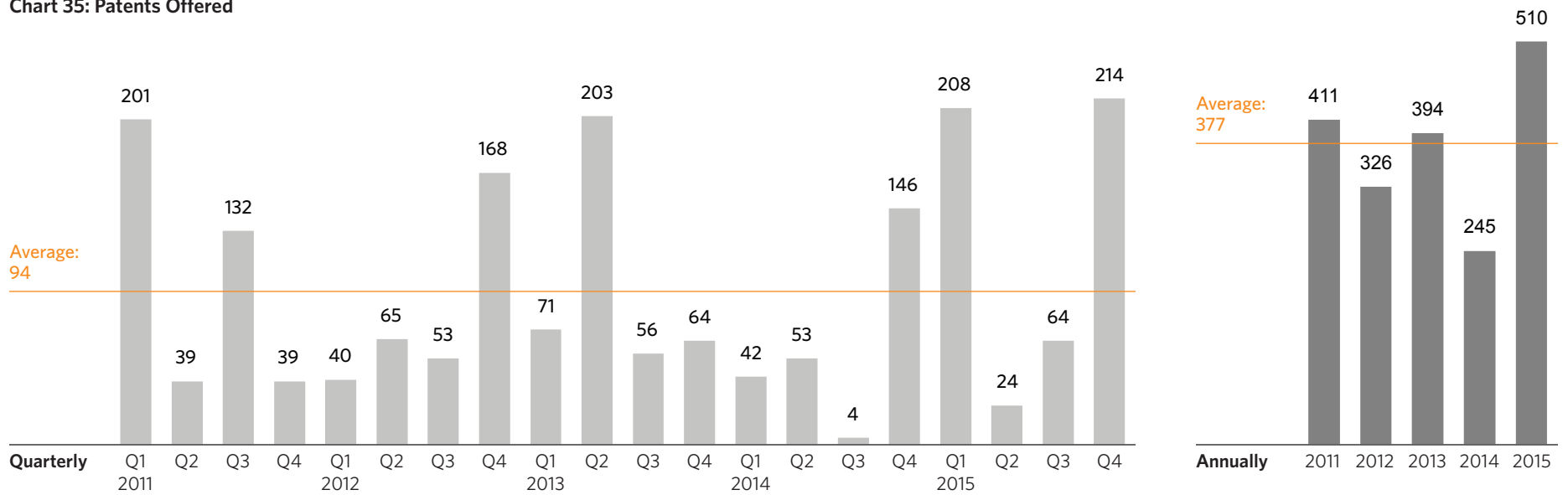
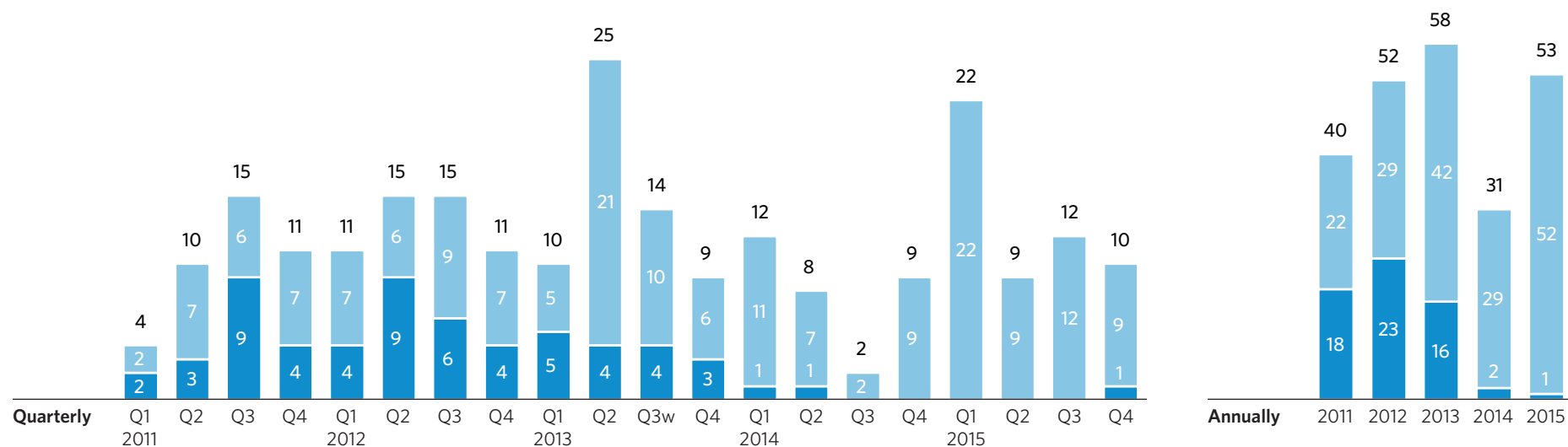


Chart 35: Patents Offered



Media Content and Distribution Transaction Metrics

Chart 36: Portfolios Transacted



Summary Statistics

	Year Portfolio Offered				
	2011	2012	2013	2014	2015
Average Patents per Portfolio Offered	10	6	7	8	10
Median Portfolio Size	2	2	2	2	3
Percent of Offered Portfolios Transacted	45	44	28	6	2
Average Elapsed Time from Offering to Transaction (Days)	212	218	219	134	92
Average Priority Date of Offered Portfolios (Year)	1999	2001	2003	2003	2003
Average Initial Seller Asking Price per Portfolio Offered (\$000s)	\$3,044	\$3,856	\$2,759	\$3,579	\$1,953
Average Initial Seller Asking Price per Patent Offered (\$000s)	\$1,377	\$2,058	\$559	\$1,029	\$767
Median Initial Seller Asking Price per Portfolio Offered (\$000s)	\$975	\$1,500	\$1,500	\$2,000	\$1,500
Median Initial Seller Asking Price per Patent Offered (\$000s)	\$975	\$528	\$409	\$280	\$273

Financial Services Portfolios Offered to RPX

Chart 37: Portfolios Offered

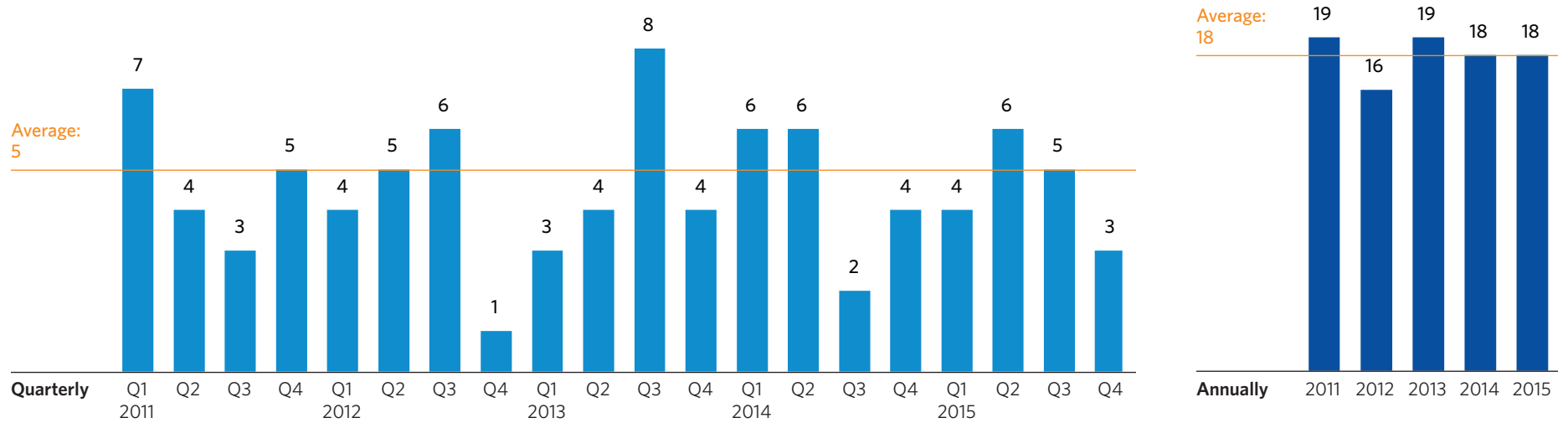
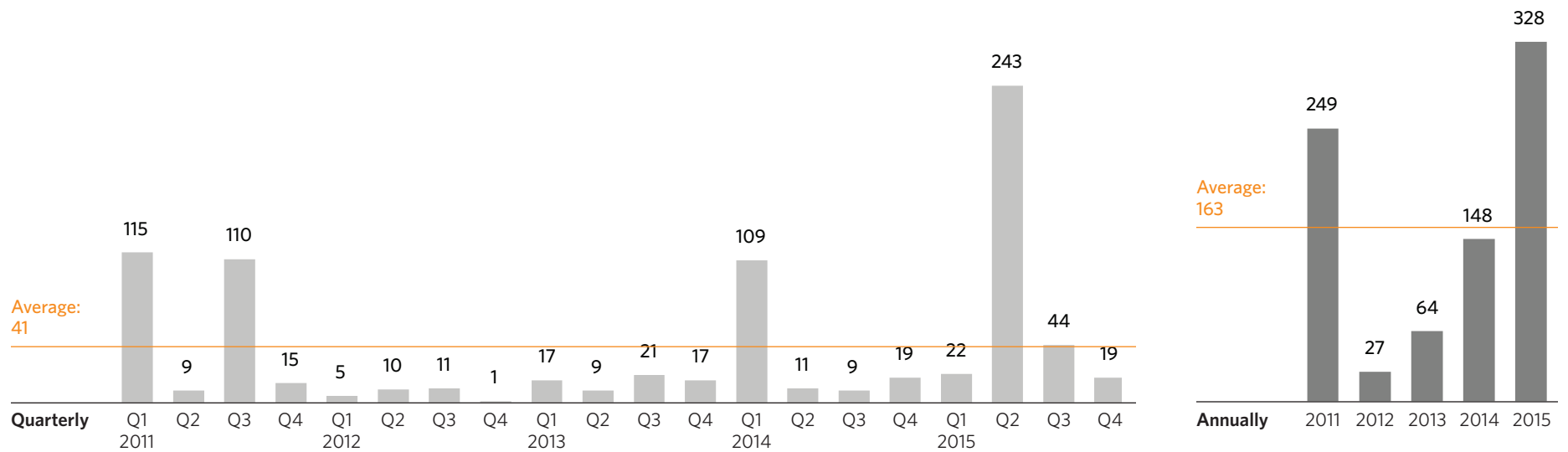
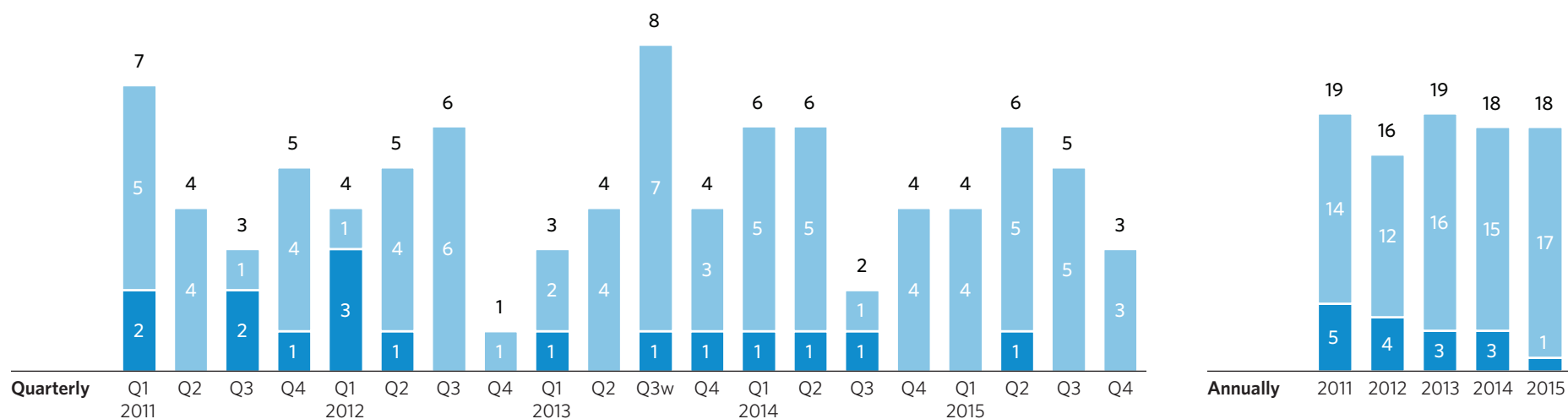


Chart 38: Patents Offered



Financial Services Transaction Metrics

Chart 39: Portfolios Transacted



Summary Statistics

	Year Portfolio Offered				
	2011	2012	2013	2014	2015
Average Patents per Portfolio Offered	13	2	3	8	18
Median Portfolio Size	2	1	2	4	3
Percent of Offered Portfolios Transacted	26	25	16	17	6
Average Elapsed Time from Offering to Transaction (Days)	240	356	191	383	214
Average Priority Date of Offered Portfolios (Year)	2001	2002	2002	2002	2003
Average Initial Seller Asking Price per Portfolio Offered (\$000s)	—	\$1,775	\$2,847	\$1,439	\$2,283
Average Initial Seller Asking Price per Patent Offered (\$000s)	—	\$1,250	\$1,000	\$1,000	\$515
Median Initial Seller Asking Price per Portfolio Offered (\$000s)	—	\$1,250	\$1,000	\$1,000	\$900
Median Initial Seller Asking Price per Patent Offered (\$000s)	—	\$1,000	\$500	\$325	\$250

NPE Cost Report

NPEs Cost the Industry \$7.4 Billion in 2015

RPX estimates that NPEs cost operating companies \$7.4 billion in 2015. This figure is projected based on reported legal and settlement or judgment costs related to NPE assertions and litigation, and the total annual volume of NPE litigation. As more companies participate in this study, the quality of the sample (and thus, the projection) improves.

NPE cost estimates are lower this year, both in 2015 and historically. This is unsurprising: our sample has expanded, but also, new legal tools (Alice, IPRs) are giving defendants more effective means to combat low-quality assertions rather than settle at a nuisance payment. That said, the more credible assertions are less vulnerable to such attacks, and thus, the higher end of the market remains a persistent threat.

Methodology Note:

The estimated total direct cost to industry of NPEs is a combination of legal cost (incurred during the case), settlement or judgment cost (payment to the plaintiff, if any), and non-litigation cost.

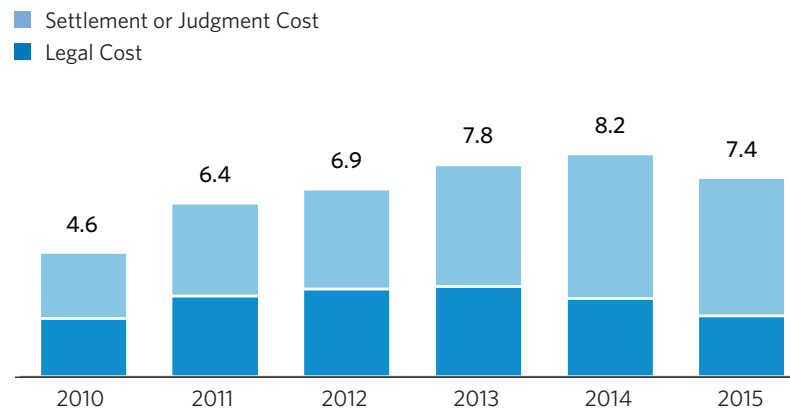
Total legal costs to industry are estimated by calculating an average daily litigation cost from all clean resolved survey data, and multiplying that average by the total number of days of all NPE litigation occurring in a given year on a per-NPE-campaign-defendant basis. (A daily average is used to account for legal costs that naturally vary by case length.) Total settlement-or-judgment costs to industry are estimated by calculating an average settlement/judgment cost per case from all clean resolved survey data submitted, and multiplying the average by the total number of defendant terminations from NPE campaigns occurring in a given year.

Averages were not segregated by time window due to small sample size and non-uniform participation across time. This methodology was applied separately within each of four separate revenue tiers for participants/defendants (\$0 - 100M, \$100M - 1B, \$1B - 10B, \$10B+) to account for differences in the scale of litigation against small versus large companies. The resulting total litigation cost estimate was increased by the estimated amount of non-litigation cost in order to reach the total.

Non-litigation cost was estimated by calculating the ratio of participants' litigation cost to their non-litigation cost, where reported, and scaling up the total accordingly; non-litigation cost contributes approximately 30% of the total estimate.

N = 1,520 resolved litigations

Chart 1: Total Estimated Direct NPE Cost Per Year (\$B)



Litigation Remains the Primary Expense of Dealing with NPEs

Although litigation is the most visible evidence of NPE activity, it is not the only NPE-related direct cost. Chart 2 breaks down NPE costs between litigation and non-litigation activity. The latter includes the cost of dealing with non-litigation assertions (e.g. demand letters) and other patent activity related to NPEs.

Litigation remains the largest portion of direct NPE costs. That said, other costs are significant, especially for larger companies; they tend to spend relatively more on non-litigation assertions and validity challenges.

Participants are increasingly filing validity challenges in tandem with litigation. For some participants, those costs would be included in the total cost of a litigation matter. Other companies track validity challenges as a separate cost. Where unclear, we conservatively assume that reported litigation costs already include the cost of related validity challenges, and do not separately add the cost of the challenge to the total cost. Thus, to a small extent, we may be underestimating that total.

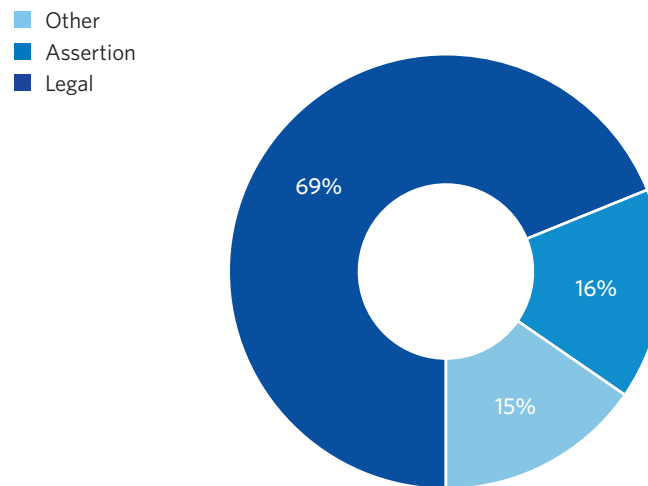
Soft costs such as employee distraction, customer uncertainty, and product workarounds are not quantified in this analysis.

Methodology Note:

Includes the costs from both resolved and active litigations and assertions. Excludes companies that did not report non-litigation costs.

N = 78 companies

Chart 2: Components of Reported Direct NPE Cost To-date



In All but the Most Expensive Cases, Legal Costs Exceed Settlements

One of the primary costs to operating companies of all NPE activity is the cost of mounting a legal defense against NPE suits. Legal costs are high but grow somewhat predictably with the length and significance of the suit, while settlements vary from \$0 to the hundreds of millions. Thus, legal defense cost is generally a more significant portion of total cost in less expensive suits, although cost ratios vary significantly among the suits reported in each category.

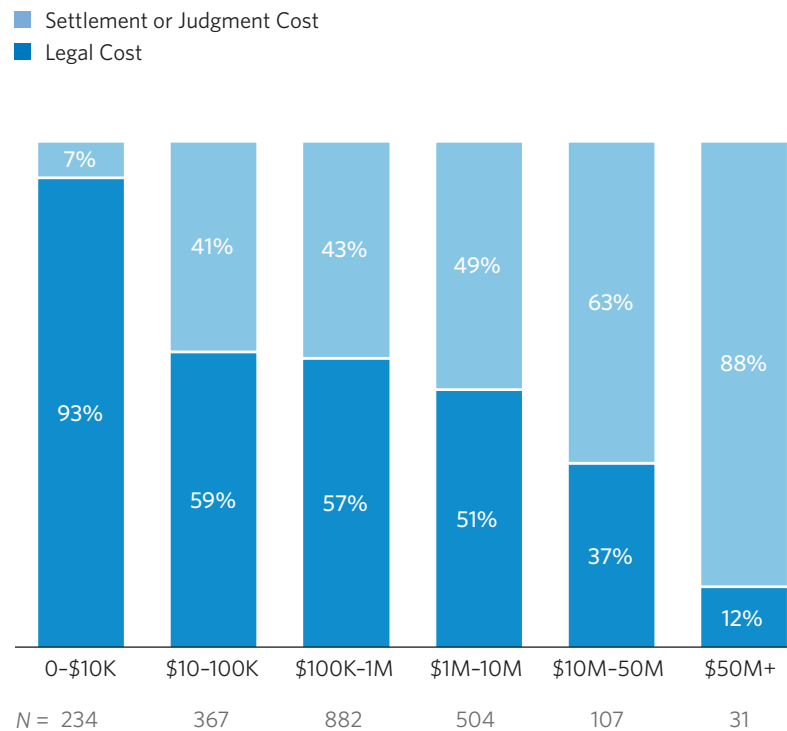
Chart 3 illustrates the distribution of total resolution costs between legal costs and settlement or judgment costs. For example, for suits costing between \$100 thousand and \$1 million to resolve, 57% of that cost was legal and 43% was settlement or judgment payments to NPEs.

Methodology Note:

Based on resolution costs of reported NPE litigations. Excludes litigations with substantial indemnification, RPX involvement, or that were resolved at zero direct cost. 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 include the estimated present value of running royalties.

N = 201 companies, 2,125 resolved litigations

Chart 3: Proportion of Legal and Resolution Cost by Total Case Cost



More Expensive Suits Reported in Certain Technology Areas

NPE suits in some market sectors appear to result in higher total costs than in other sectors; however, the difference can be largely attributed to a few high-cost suits in those market sectors.

Chart 4A illustrates the mean total cost of resolution for reported NPE suits segmented by market sector. The categories refer to the accused products in the case, not necessarily the company’s primary market sector.

Because of the large variability of reported costs, a small number of exceptionally expensive suits skew the mean total costs upward.

To adjust for this, Chart 4B illustrates the same mean cost after excluding those cases having total costs greater than \$10 million. Chart 4C shows the median cost of resolution for reported NPE suits.

Methodology Note:

Based on reported cost of resolved NPE litigations. Excludes litigations with substantial indemnification, RPX involvement, or that were resolved at zero direct cost. 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 include the estimated present value of running royalties. Median costs cannot be split between legal and settlement.

N = 199 companies, 1,881 resolved litigations

Chart 4A: Mean Resolution Cost for Reported NPE Suits By Sector (\$M)

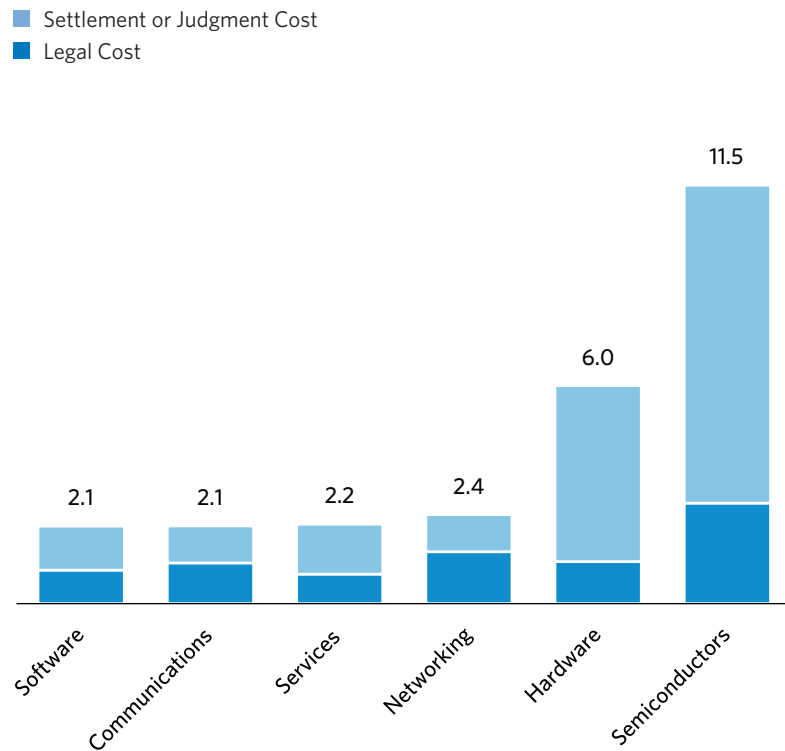


Chart 4B: Mean Resolution Cost for Reported NPE Suits, Excluding Cases > \$10M (\$M)

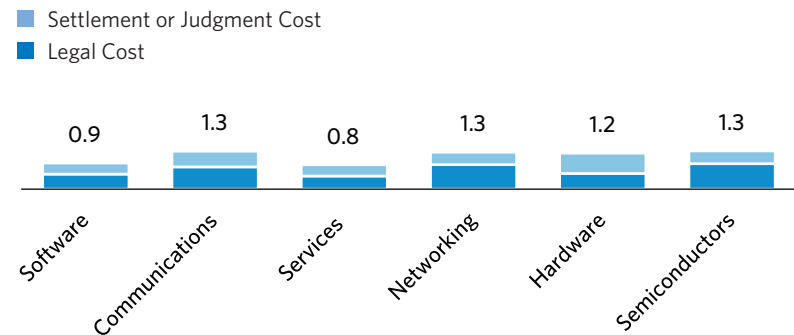
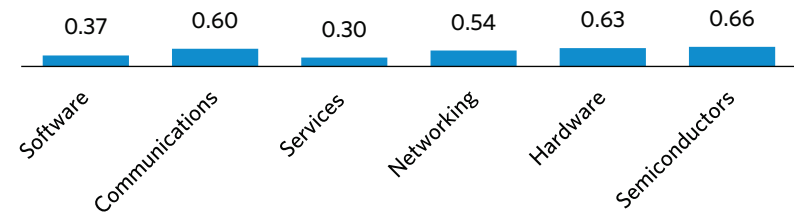


Chart 4C: Median Resolution Costs for Reported NPE Suits by Sector (\$M)



Litigation Costs Multiply as Parties Approach Trial

Average legal and settlement costs naturally increase as a case progresses, even doubling or tripling at key events in the litigation sequence.

Chart 5A illustrates the average costs for litigations that ended at the event shown. This gives a sense of what the incremental cost would be of pushing the litigation forward another stage before settling or terminating. For example, litigations that ended after a claim construction order, on average, cost \$4.2 million. That number is considerably higher than the \$3.1 million average for litigations ending after a Rule 26 conference, the previous key event. Total costs triple for cases that went to trial instead of ending at summary judgment.

Chart 5B illustrates that the average cost of a litigation reaching a particular event, but not necessarily ending there. (All cases are included in the "Complaint Filed" category and, from there, N decreases.)

This gives a sense of what the expected cost of a litigation might be after reaching a particular event, without knowing when it will end. Litigations that went at least as far as claim construction cost an average of \$5.5 million as compared to an average of \$3 million for litigations that went at least as far as the answer. This analysis should interest a defendant that has reached an event but does not know when a litigation might resolve. Defendants can look to these data for guidance about average future costs based on what past defendants have incurred.

Chart 5C illustrates that reaching a claim construction order markedly increases the average cost. Costs were nearly three times as much in litigations with claim construction orders (\$5.5 million versus \$2 million).

Note that not all cases follow this precise sequence. For examples, some cases reach summary judgment before a claim construction order issues.

Methodology Note:

Analysis excludes litigations with substantial indemnification or RPX involvement. 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.

N = 162 companies, 1,473 resolved litigations

Chart 5A: Mean Resolution Costs for Reported NPE Suits That End at a Given Stage (\$M)

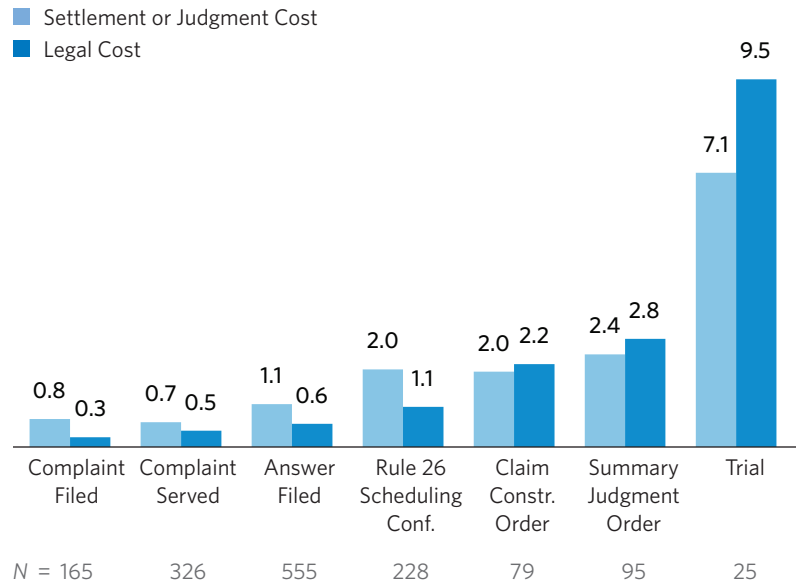


Chart 5B: Mean Resolution Costs for Reported NPE Suits That Reached at Least the Given Stage (\$M)

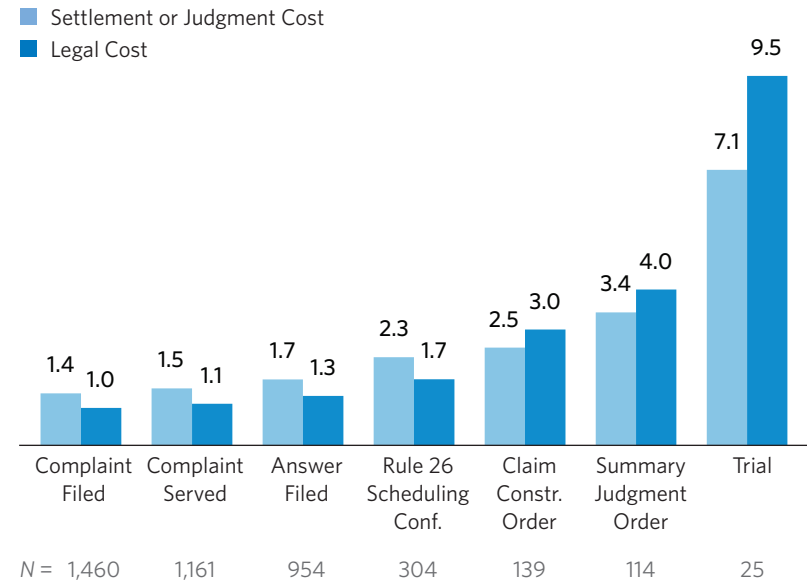
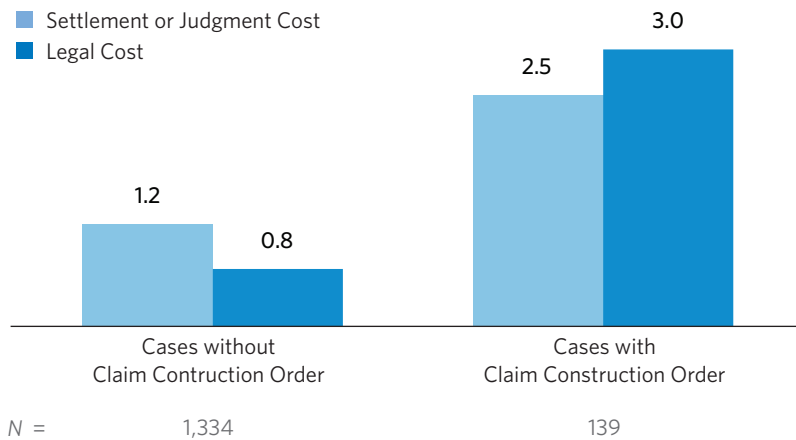


Chart 5C: Mean Resolution Costs for Suits with vs. without a Claim Construction Order (\$M)



Wide Range of Costs to File IPRs

Chart 6 illustrates the median cost of an IPR petition that has reached the stage indicated, along with the variability in reported costs. Variability is indicated by illustrating the 10th and 90th percentiles of reported data. (For example, 90% of petitions reaching final decision were reported at costs less than \$720 thousand.) In short, IPR petition costs are generally in

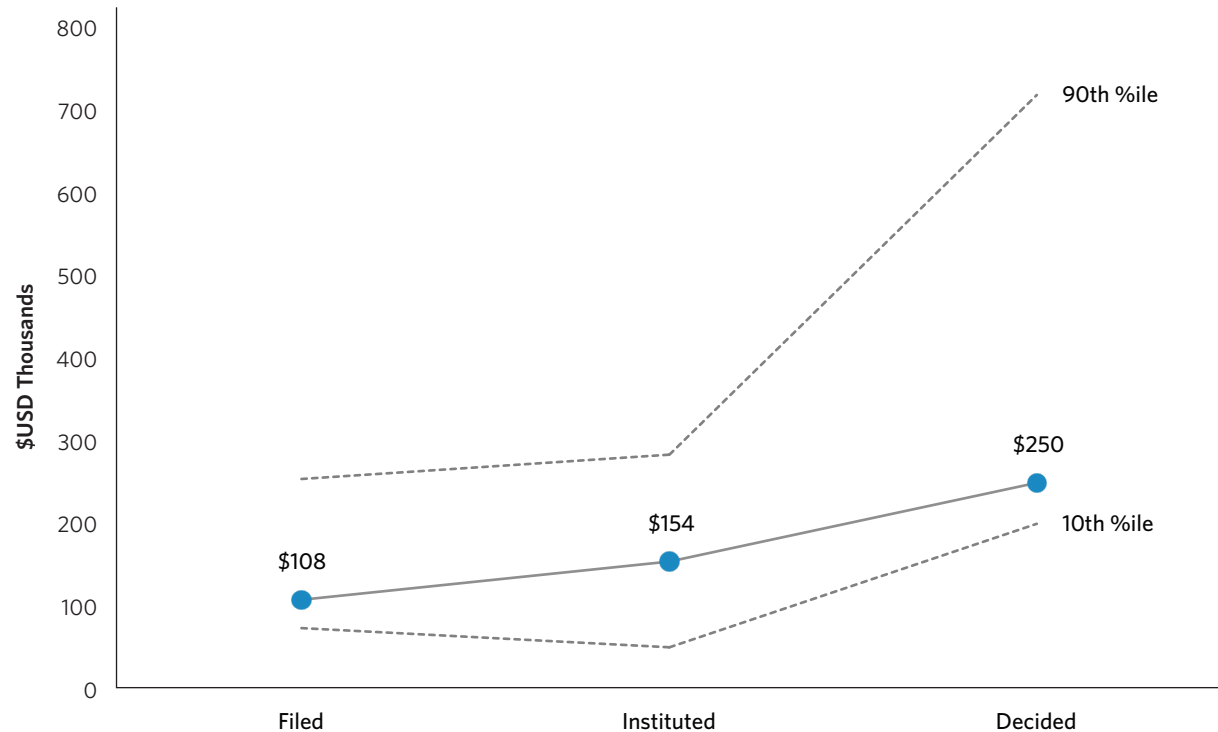
the six figures: \$200 thousand on the low end, and \$700 thousand on the high end, for those that reach a final decision. Much (40 - 60%) of that total cost is incurred in the first six months between filing the petition and institution. The range of costs to file a petition is narrower (\$75 thousand to \$250 thousand).

Methodology Note:

Represents total cumulative costs (expert, legal, and filing) to a petitioner for a petition terminated or still pending at or after the indicated stage. Includes individual petitions and petitions filed within clusters. Clustered petitions are reported at the latest stage reached by any petition in the cluster. Excludes costs affected by party sharing.

N = 118 petitions

Chart 6: Range of Costs per IPR Petition (Cumulative, by Stage)



IPR Defense Strategy Often Requires Multiple Petitions

Chart 7 shows the average cumulative cost of petitions related to the same litigation campaign, both the per-petition cost and the total campaign cost. While individual petitions might be cheaper when filed as part of a single campaign, a full campaign is typically two to three times more expensive on average than a

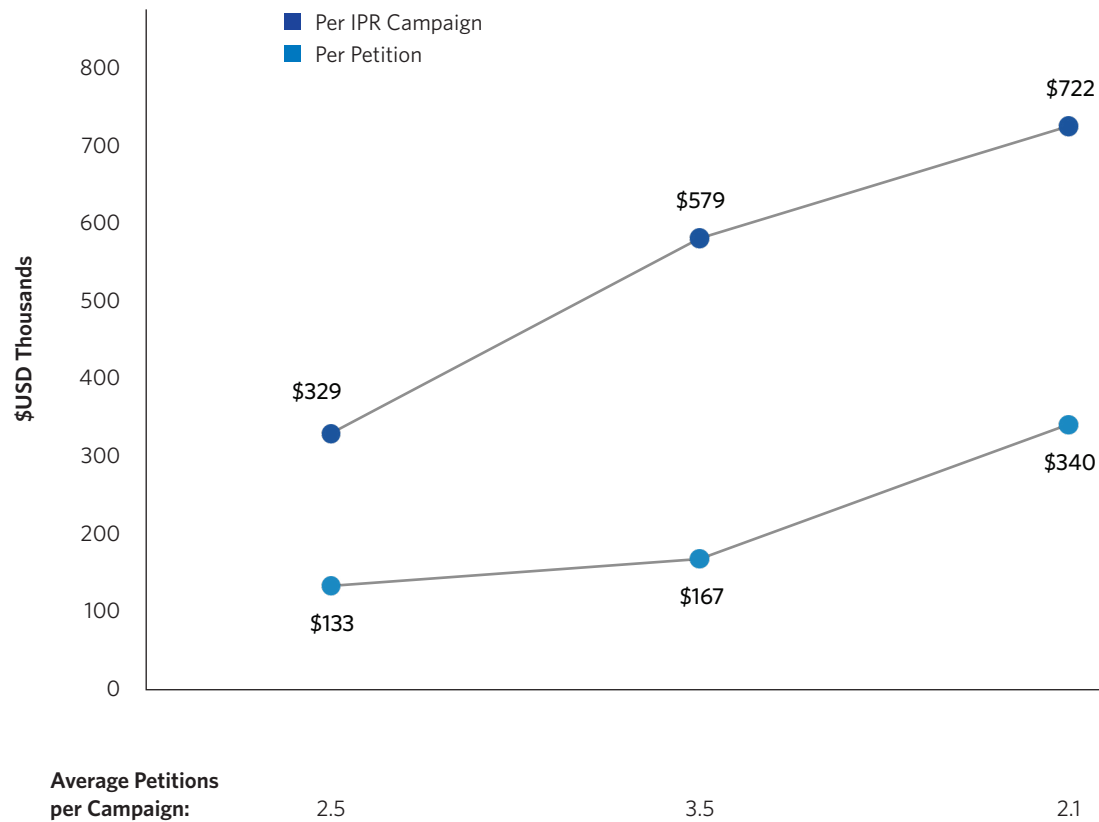
solo petition reaching the same stage (Compare to Chart 6). Note that the average total cost of an IPR campaign reaching final decision is approximately equal to the most expensive of the individual petitions reported (90th percentile, Chart 6).

Methodology Note:

An IPR "campaign" includes reported costs of all IPR petitions and clusters related to the same litigation campaign. IPR campaign stage is based on the latest stage reached by any petition in the campaign. Note that IPRs relating to a litigation campaign can be a mixture of individual petitions and clusters of petitions. Excludes costs affected by party sharing.

N = 40 campaigns, 109 petitions

Chart 7: Average Cost of an IPR Campaign



**Over 80% of IPR Costs
Go to Counsel**

Chart 16 shows the ratio of the reported cost types for the petitions. Unsurprisingly, most of the cost is legal fees. Since filing fees are relatively fixed, they naturally comprise a slightly more significant share of the total in preliminary stages (12%) than in the final stage (5%).

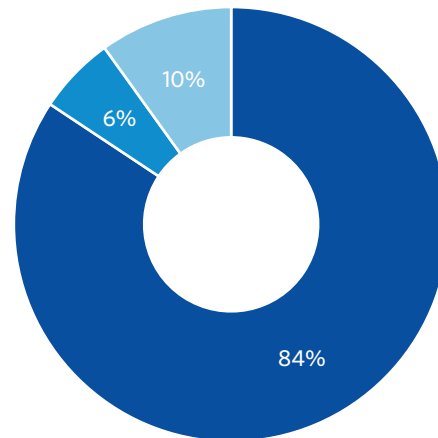
Methodology Note:

Includes individual petitions with separately reported fees to counsel, experts, and the PTO (for filing) at various stages. Excludes costs affected by party sharing or petition clustering. Ratio shown is the average of ratios at each stage (i.e. unweighted by sample size per stage).

N = 72 petitions

Chart 16: Ratio of IPR Petition Costs

- Filing
- Experts
- Counsel



Methodology

RPX strives to continuously improve the accuracy and scope of its data and may make minor changes to methodology and underlying data presented in future analyses and reports. In addition, certain aspects of our methodology—such as the treatment of severances and consolidations, the identification of transactions based on recorded assignments—may result in slight changes as time passes.

General Methodologies

NPE Definition

For the purposes of this report the following are considered NPEs:

1. Patent assertion entities (PAEs): entities believed to earn revenue predominantly through asserting patents
2. Universities and research institutions
3. Individual inventors
4. Non-competing entities (NCEs): operating companies asserting patents outside their areas of products or services

NPE Identification

RPX identifies NPEs through a manual review process performed by experienced employees with sophisticated knowledge of the patent industry.

The process includes, among other things, searching for evidence of operating or patent monetization activities on the Internet including company websites; reviewing complaints, with a focus on accused products and allegations regarding products and/ or services sold by the patent owner; considering the outside counsel employed by the entity (e.g. whether outside counsel has a history of representing NPEs); reviewing public filings; reviewing corporate disclosure statements filed in litigation; and soliciting market intelligence from patent professionals.

While there are elements of subjectivity in this approach, we believe that the process is robust based on feedback from other patent professionals.

NPE Roll-up

RPX's proprietary litigation database rolls up certain related NPEs to a single NPE entity. RPX has manually identified these relationships by, among other things, reviewing corporate disclosures, patent assignment records, and RPX market intelligence. For example, Acacia has numerous subsidiaries that RPX has identified. These entities are all represented as Acacia in this report's analyses concerning the most prolific NPEs.

Corporate Families

RPX has developed a proprietary database of corporate families. All entities in a corporate family are generally treated as a single unique entity. Portfolio companies owned by private equity firms are a notable exception; they are treated as independent entities. To the extent multiple members of a corporate family are defendants in a lawsuit, RPX counts those entities as a single defendant. Corporate families may change over time. For example, M&A activity may result in consolidation of entities.

Cases

(Cases Filed, Total Defendants Added, and Unique Defendants Added)

"Cases filed" refers to filed actions. A single case filed may include multiple defendants. The date for a case filed is the date that it was originally filed.

"Total defendants added" refers to the total number of case/defendant pairings added for a given criterion. New filings, as well as amended complaints that add a defendant, are taken into account in total defendants added.

"Unique defendants added" refers to the total number of entities that have been added as a defendant in a case (via original or amended complaint) for a given criterion. For example, if Company A has been added in seven cases in 2013, it still counts as one unique defendant added in 2013.

The date for determining total defendants added and unique defendants added is the date that a defendant was added to a case. This date may differ from the date the case was originally filed. For example, defendants added in amended complaints may be bucketed in a different time period than the period that applies for the case filed.

"NPE cases filed", "total NPE defendants added", and "unique NPE defendants added" have the same meaning as the above terms but are limited to cases filed by NPEs.

Campaigns

(Campaign, New Campaigns Filed, Total Campaign Defendants, and Unique Campaign Defendants)

"Campaign" refers to all cases filed by the same plaintiff (inclusive of all members in the corporate family), where each case has at least one patent or family member of a patent in common with another case in the campaign.

"Campaigns filed" refers to unique campaigns. The date for a campaign filed is the filing date of the first case filed in the campaign. For example, if a campaign includes ten cases, there will be only one new campaign filed; the filing date for the campaign is established by the filing date of the first case filed in the campaign.

"Total campaign defendants added" refers to the total number of campaign/defendant pairings for a given criterion.

"Unique campaign defendants added" refers to the total number of entities that have been added in a campaign for a given criterion.

The date for determining total campaign defendants added and unique campaign defendants added is the date a defendant was first added to a campaign.

"NPE campaigns filed", "total NPE campaign defendants added", and "unique NPE campaign defendants added" have the same meaning as the above terms but are limited to campaigns filed by NPEs.

Market Sector Classifications

RPX has created a proprietary list of market sectors. RPX manually categorizes each case filed into a market sector based on a review of the accused products, defendants, and asserted patents. In certain portions of this report, defendants are also classified into an RPX market sector. Classification of defendants is based on the type of NPE litigation that the defendant appears in most often. In certain portions of this report, portfolios are also classified into an RPX market sector.

Litigation Report

Litigation Data Set

This report uses data from the RPX database as of Q1 2016. These data will be affected by the lag time between when cases are filed and when PACER makes case information available to the public. Thus, future analyses may shift, also due in part to any subsequent transfers, severances, and consolidations of cases from 2015 or earlier.

First-time Defendants

First-time defendants are calculated on a normalized defendant basis based on the minimum defendant start date in a litigation.

Transfers, Severances, and Consolidations

RPX takes into account transfers, severances, and consolidations as follows:

- When a case is transferred, RPX counts the original action and the new action as a single case filed. RPX considers the filing date of the original action to be the case filing date.
- When several cases are consolidated, RPX counts the consolidation as one case filed but multiple total defendants added. RPX considers the filing date of the earliest-filed consolidated case to be the case filing date.
- When a case is severed into multiple cases, RPX counts multiple cases filed. RPX considers the filing date of the original case to be the filing date of each of the severed cases.
- Consolidations and severances may happen after the year of filing; in such circumstances, RPX's count of the number of cases filed for the year of filing will change as described above.

Declaratory Judgment Actions

Declaratory judgment actions are excluded unless otherwise expressly noted.

Inter Partes Review and Covered Business Method Review Identification

RPX has reviewed for inclusion in this report all *inter partes* reviews (IPR) and Covered Business Method reviews (CBM) made available through the Patent Trial and Appeal Board's Patent Review Processing System (PRPS) with case numbers starting with "IPR" or "CBM".

IPR and CBM Status

RPX has assigned a "status" to each IPR or CBM proceeding based a review of key documents filed on the PTAB's PRPS database. Petitions are assigned to one of the following categories as of the date of the analysis:

- Pending: The proceeding remains active, either pre-institution or in trial (after an Institution Decision).
- Institution Decision (Instituted or Denied): The PTAB issued a decision whether or not to institute review based on the petition. Note that petitions "Instituted" may be instituted as to all or merely some of the claims challenged.
- Joined: The PTAB procedurally joined two or more petitions into a single trial proceeding pursuant to a motion for joinder. RPX only counts joined petitions once when reporting outcomes, unless otherwise noted.
- Terminated: The PTAB administratively terminated the proceeding (i.e. without reaching a final written decision). Termination may occur pre- or post-institution. Note that termination frequently occurs pursuant to a settlement between the parties.
- Adverse Judgment: The PTAB entered adverse judgment against the requesting party. Adverse judgment may be entered pre- or post-institution.
- Final Decision: The PTAB has issued a final written decision on the merits of the petition. The proceeding may be resolved, or awaiting the result of an appeal.

IPR and CBM Decisions

RPX reports outcomes for PTAB proceedings based on a review of PTAB Institution Decisions and Final Written Decisions that have been identified from the PTAB's PRPS database of filings. RPX manually reviews the decisions and identifies the number of claims instituted for review (at Institution) or ruled unpatentable (at Final Written Decision).

Marketplace Report

Marketplace Data Set

The data in this report are limited to RPX's experience in the open market. RPX believes that as one of the largest patent buyers in the world, it is offered the vast majority of portfolios in the open market. However, RPX may not be offered a limited number of portfolios on the open market, and those portfolios are not reflected in the analyses in this report.

Exclusions

This report excludes portfolios offered through certain auctions due to historically low transaction rates for those auctions. RPX believes that excluding those auctions provides better insight into offered portfolios that have a reasonable chance of transacting. However, this report may not provide as much insight into patent auctions with low historical transaction rates.

Portfolio

"Portfolio" refers to a distinct patent portfolio offered to RPX. A portfolio may contain one or more patents. A group of patents is considered one portfolio when marketed together to RPX.

Specific patents may be offered to RPX as part of different portfolios at different times. Accordingly, some patents may be counted multiple times as part of more than one portfolio.

Patents

For the purposes of this report, "patents" refers to US granted patents. While US applications and foreign patents and applications are often offered in portfolios, they are not taken into account in the charts and tables in this report.

Portfolio and Patent Offer Dates

A portfolio's offer date is the date that a particular portfolio is first offered to RPX. The patents in a particular portfolio will share the same offer date. Patents are sometimes offered in multiple portfolios before transacting. But generally, they will be attributed to one portfolio opportunity.

Portfolio Execution and Record Dates

A portfolio's execution/record date is the earliest execution/record date of a transacted patent in the portfolio.

Transactions

RPX considers a portfolio to have transacted if at least one patent from the portfolio transacted with a recorded execution date after RPX was offered the portfolio; and the transaction was to a third party (i.e. not a transfer between members of the same corporate family).

RPX considers a patent to have transacted 1) if the patent transacted with a recorded execution date after RPX was offered the patent; and 2) the transaction was to a third party (i.e. not a transfer between members of the same corporate family).

Use of Offer Date for Analyses

Unless otherwise noted, analyses in this report are based on offer dates of a portfolio. For example, if Portfolio A was offered to RPX in Q1 2010 and later transacted with an execution date of Q2 2012, the transaction would be mapped to Q1 2010 in Chart 11 (page 16).

USPTO Record Date Limitation

Transaction data is based on assignments recorded with the USPTO as of February 16, 2016. Transactions that occurred but were not recorded by then are not reflected in this report.

Initial Seller Asking Prices

Initial seller asking price is the initial pricing guidance given to RPX by the patent seller. If the initial guidance is a pricing range, RPX translated the range in a consistent way for the analyses in this report. For example, if a seller communicated an expectation of "mid-six figures", RPX used an initial seller asking price of \$500,000.

Please note the following:

- Initial seller asking prices will often not reflect the actual transaction price of a portfolio, which is usually confidential.
- Asking prices are often updated as discussions progress. But to ensure consistency, this report includes only the initial asking price.
- Approximately 20% of all portfolios offered to RPX do not have an initial seller asking price. Portfolios without pricing guidance are not taken into account for analyses of initial seller asking prices.

Cost Report

Cost Report Data Set

Between May and December 2015, RPX invited companies to participate in a survey of NPE-related costs. Approximately 234 companies have participated to date and submitted data in time for publication of this report. Participants include both RPX members and non-members.

Beginning in 2014, RPX also invited participants to contribute the costs of filing petitions for *inter partes* review (IPR) or covered business method review (CBM) before the Patent Trial and Appeal Board. So far, 12 companies have separately reported data for 141 petitions.

Type of Data Collected

Participants provided various statistics pertaining to NPE-related costs from 2005 through 2015. RPX required companies to provide comprehensive statistics on all NPE litigation costs (with a few minor exceptions). Thus, new participants provide data not just for the reporting year, but also for historical NPE litigation costs.

Participants in the PTAB portion of the study were asked to report legal fees, expert fees, and filing fees separately for each petition they filed, as well as the petition's current procedural stage and status (e.g. pending, terminated, decision reached). A minority of participants were unable to itemize their per-petition costs.

Anonymous Participation

To ensure the anonymity of participant companies and their data, we do not provide a list of participants nor report most statistics according to company sectors.

Market Sectors

NPE litigations were tagged with market sectors according to the accused product and patents-in-suit. Litigations can have more than one tag. Various statistics were then aggregated based on these tags. Statistics are not shared for segments having fewer than four companies or nine litigations.

"Clean" Resolved Litigations

To provide a more accurate picture of NPE costs, we include resolution cost statistics on "clean" resolved litigations. "Clean" resolved litigations exclude active litigations, litigations with indemnification, or litigations in which RPX was involved.

Descriptive Statistics

Note that tables reporting median or percentile costs are not additive. For example, the median value of the medians of each of two or more equal-sized groups is not equal to the median for the combined groups.

Litigations Ending at a Given Event

RPX defines a litigation as ending at a given event if the litigation does not reach a subsequent event. For the purposes of this analysis, RPX considered only a subset of events and considered those events in the order that a litigation generally (although not always) progresses: complaint filed, complaint served, answer filed, Rule 26 scheduling conference, claim construction order, summary judgment order, and trial. For example, a litigation that reaches a Rule 26 scheduling conference but that does not reach a claim construction order, summary judgment order, or trial, is counted as ending at a Rule 26 scheduling conference.

Litigations Reaching a Given Event

RPX defines a litigation as reaching a given event if the given event has occurred, regardless of what other events have also occurred. For example, a litigation that reached a Rule 26 scheduling conference, claim construction order, and summary judgment order counts as having reached each of those events.

PTAB Petition Costs by Stage

Participants in the PTAB portion of the study were asked to report total cumulative costs for PTAB petitions as of the last stage reached in the proceeding, and to indicate whether the proceeding was active or resolved. Petitions were grouped into the following categories for this analysis:

- Filed: Petitions that were filed but have not been instituted. (Petitions might be pending, terminated pre-institution, or denied institution.)
- Instituted: Petitions that were instituted but have not reached a final written decision. (Petitions might be pending or terminated.) Intermediate stages include Patent Owner's Response, Petitioner's Reply, and Oral Hearing.
- Decided: Petitions that have reached a final written decision. (Petitions might be resolved, or pending an appeal.)

For petitions reported in groups (by "cluster" or "campaign"), costs are reported as of the last stage reached by any petition in the group, unless otherwise noted.

PTAB Petition Cost Groupings

Some participants reported PTAB petition costs by individual matter, while others report a single total cost for several matters as a group. RPX refers to the latter as "clusters" of petitions; generally, such petitions are related in subject matter and/or involve the same counsel or experts, and thus, likely exhibit cost savings over individually managed petitions.

Because PTAB petitions are often filed in tandem with litigation, RPX is able to group all PTAB petitions that relate to the same district court litigation campaign. RPX thus refers to a PTAB "campaign" as the group of all petitions that are filed against the patents asserted against the petitioner within the same litigation campaign. A PTAB "campaign" therefore might include multiple individual petitions and/or petition clusters.

About RPX

RPX Corporation (NASDAQ: RPXC) provides market-based and technology solutions to help corporate legal departments reduce the risk and costs associated with both patent litigation and legal discovery services.

Our patent risk management services address NPE (non-practicing entity) patent litigation. Members of the RPX client network pay an annual fee that is calculated based on their net operating incomes. We then use this aggregated capital to acquire potentially problematic patents and rights from the pre-litigation market and out of active litigations before they can become a costly problem for our clients. RPX promises never to litigate or assert the patent assets it purchases.

In addition to our defensive patent acquisition service, RPX also facilitates syndicated transactions that include contributions from participating clients in addition to their annual subscription fees. Similar to other acquisitions, these syndicated deals are designed to efficiently share resources and collectively reduce litigation risk. And we offer unique NPE litigation insurance, written on A rated paper and backed by a Lloyd's underwriting syndicate. Further, RPX provides clients with in-depth industry data, market intelligence, and patent advisory services.

RPX subsidiary Inventus is a leading international discovery management provider focused on reducing the costs and risks associated with the discovery process through the effective use of technology solutions. Inventus has been providing litigation support services to corporate legal departments, law firms, and government agencies since 1991.

RPX has invested over \$2 billion to acquire more than 15,000 US and international patent assets and rights, achieved nearly 950 litigation dismissals, and prevented more than 4,000 NPE litigations from occurring. Since our founding in 2008, we have saved our clients more than \$3.2 billion in avoided NPE legal and settlement costs.

The RPX network comprises more than 250 clients in sectors including automotive, consumer electronics and personal computing, E-commerce and software, financial services, media content and distribution, mobile communications, networking, and semiconductors.

Contacts

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