

Are Patent Holders Better Off in Court?

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While there is vigorous debate along many dimensions about whether or not the existing patent system requires reform, our interest lies solely within our area of expertise; patent damages awards by the courts. The question we are addressing is whether or not patent damage awards reflect the underlying economic damages suffered by the patentee. Any indication that patent holders are either better or worse off in court than in the marketplace indicates that reform is required to the system for determining patent damages.¹

The law states that damages should be “adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use of the invention by the infringer ...”² Further, the case law goes on to more clearly articulate that it is harm to the patentee, not the benefits to the infringer that is the basis for damages:

But the present statutory rule is that only “damages” may be recovered. These have been defined by this court as “compensation for the pecuniary loss he [the patentee] has suffered from the infringement, without regard to the question whether the defendant has gained or lost by his unlawful acts.” *Coupe v. Royer*, 155 U.S. 565, 582. They have been said to constitute ‘the difference between his pecuniary condition after the infringement and what his condition could have been if the infringement had not occurred.’ ... The question to be asked in determining damages is ‘how much had the Patent Holder and Licensee suffered by the infringement. And that question [is] primarily: had the Infringer not infringed, what would the Patent Holder-Licensee have made?’³

It is an impossible task to definitively determine whether or not any individual patent holder would have been better off in court than in the market. However, we should expect to see a certain similarity between the underlying distribution of damages awarded by the courts and license amounts in the marketplace.

A compilation of patent damages awards developed by Dr. Paul Janicke shows that, between 2005 and 2007, out of 70 documented awards, the top jury verdict was \$1.5 billion (the *Lucent v. Microsoft* case, truncated in the chart below) while the underlying distribution of non-zero awards followed a roughly exponential distribution. Thus, one complicating factor in all of this analysis is the extent to which the top damages awards dominate the distribution.

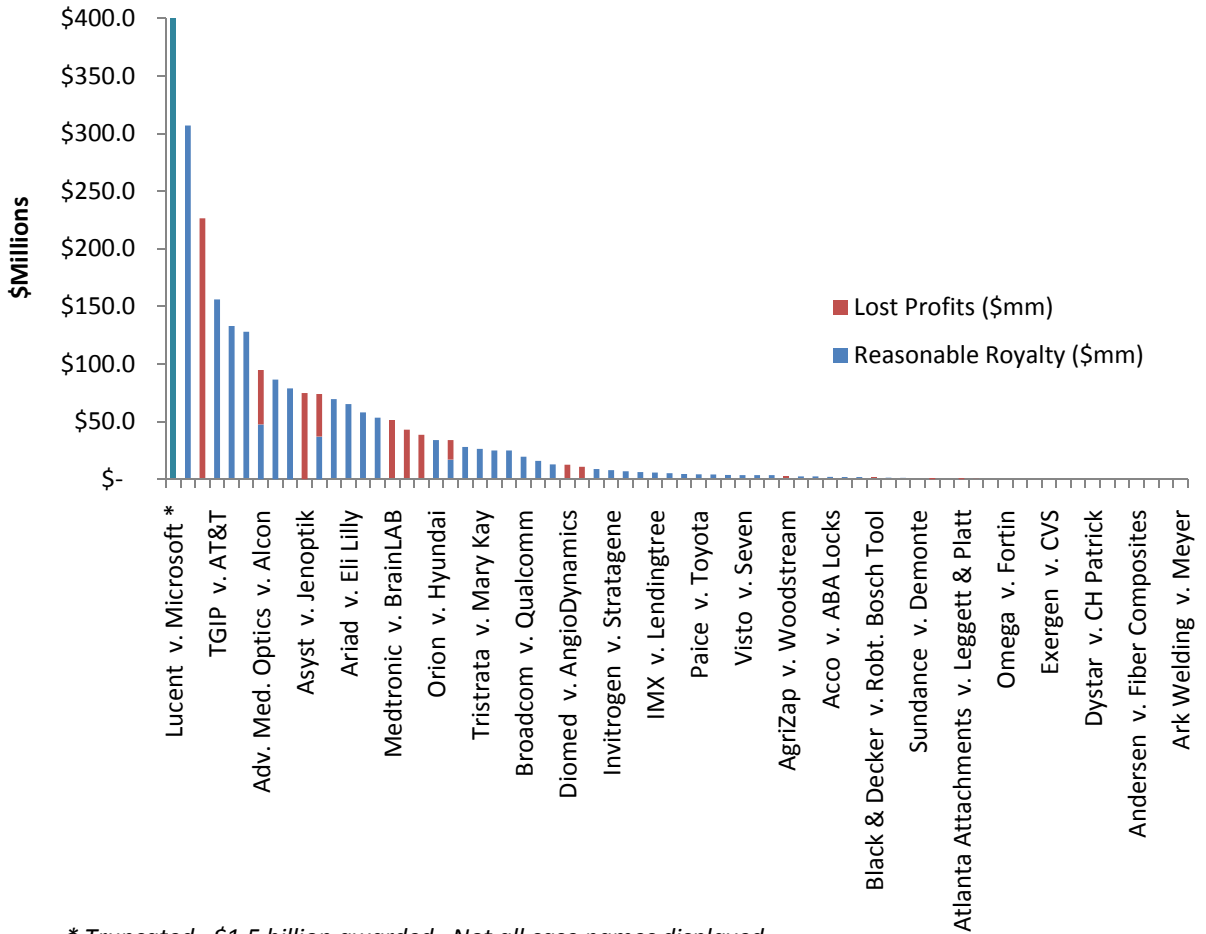
In the chart below, we have indicated lost profits awards in red and reasonable royalty awards in blue.

¹ When patent holders are better-off in court, the result is excessive litigation and less innovation. If they are worse off, then they will rely upon trade secrets, onerous employee contracts, and other socially undesirable methods of protecting their intellectual property. They are also like to invest less in developing new technologies that can't be protected by these means.

² 35 U.S.C. § 284.

³ *Aro Mfg. Co. v. Convertible Top Replacement Co.*

Patent Damages Awards by Juries (2005 - 2007)



* Truncated. \$1.5 billion awarded. Not all case names displayed

Source: Innovation Alliance, "Moving Beyond the Rhetoric: Jury Damage Verdicts in Patent Infringement Cases 2005 – 2007."

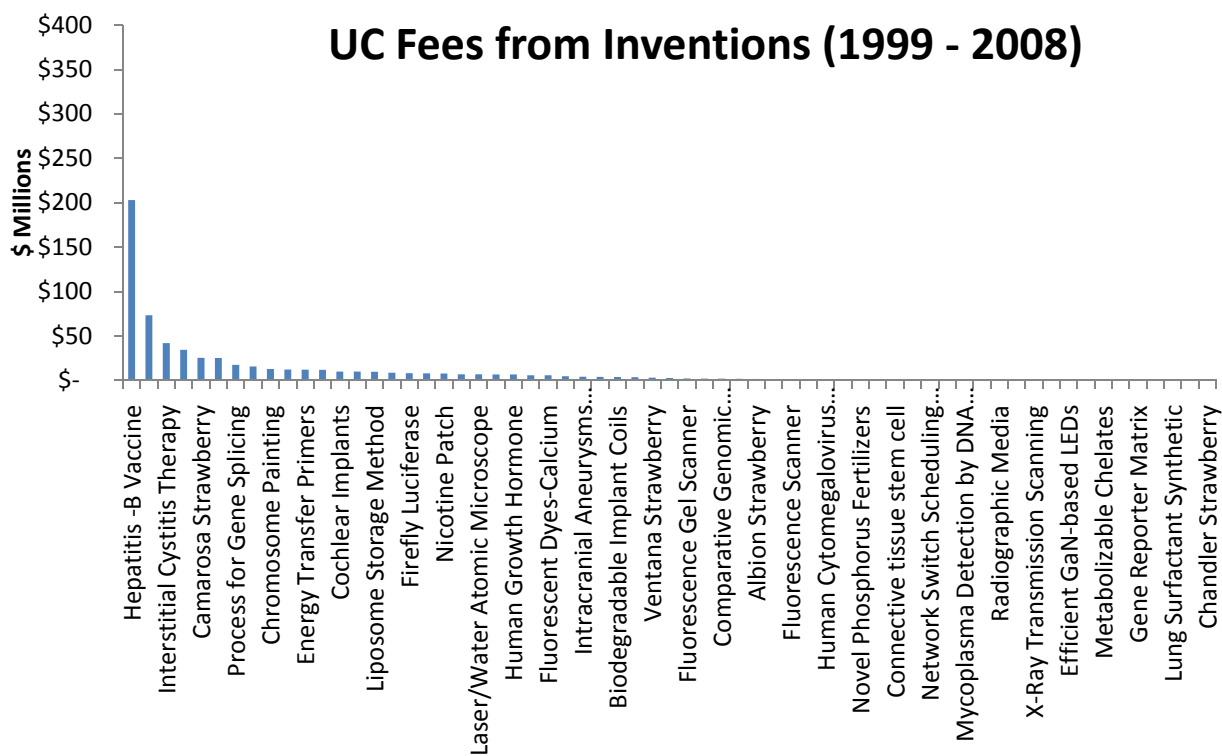
One fact is immediately obvious; reasonable royalty awards dominate the distribution. Out of the 70 total awards, 11 are lost profits only, 7 are both lost profits and a reasonable royalty and 52 are reasonable royalty only. In addition, the reasonable royalty awards are the largest awards granted

The dominance of the reasonable royalty awards in the distribution is somewhat counter-intuitive. The patent damages law is aimed at compensating the patent-holder for damages suffered. Thus, we would expect to see lost profits awards – which involve the presumed loss of sales from the protected product – to be larger than the reasonable royalty awards due to the higher profit margins when selling a product versus those from licensing it. This would suggest that most infringement suits are pursued by non-practicing entities and entities practicing in unrelated industries.

The lack of lost profits awards allows us to examine the relationship between damages awards and marketplace licensing more easily. To the extent reasonable royalty awards reflect the forgone opportunity in the market; they should follow a distribution similar to that available to market licenses.

Most companies are very guarded with the actual licensing rates for their portfolios. While we have seen thousands of licenses in the course of our work, those are almost always reviewed under strict confidentiality orders. These confidential reviews are usually limited to the licensing rates or lump-sum payments. Thus, it is rare to find data on the total revenues from a license or a group of related licenses that could be compared to damage awards (which usually encompass several years of past payments). The only publicly-available source of licensing data we are aware of is the University of California system (“UC”).

The UC publishes an annual report that discloses its top 25 fee-generating licenses. It is worth noting that, in a recent Association of University Technology Managers report, the UC System ranked number three in the country for the total value amount of annual licensing income. Thus, while it is not representative of the entire country, the UC portfolio is significant. The distribution of ten-year earnings from the UC licenses is shown in the chart below:

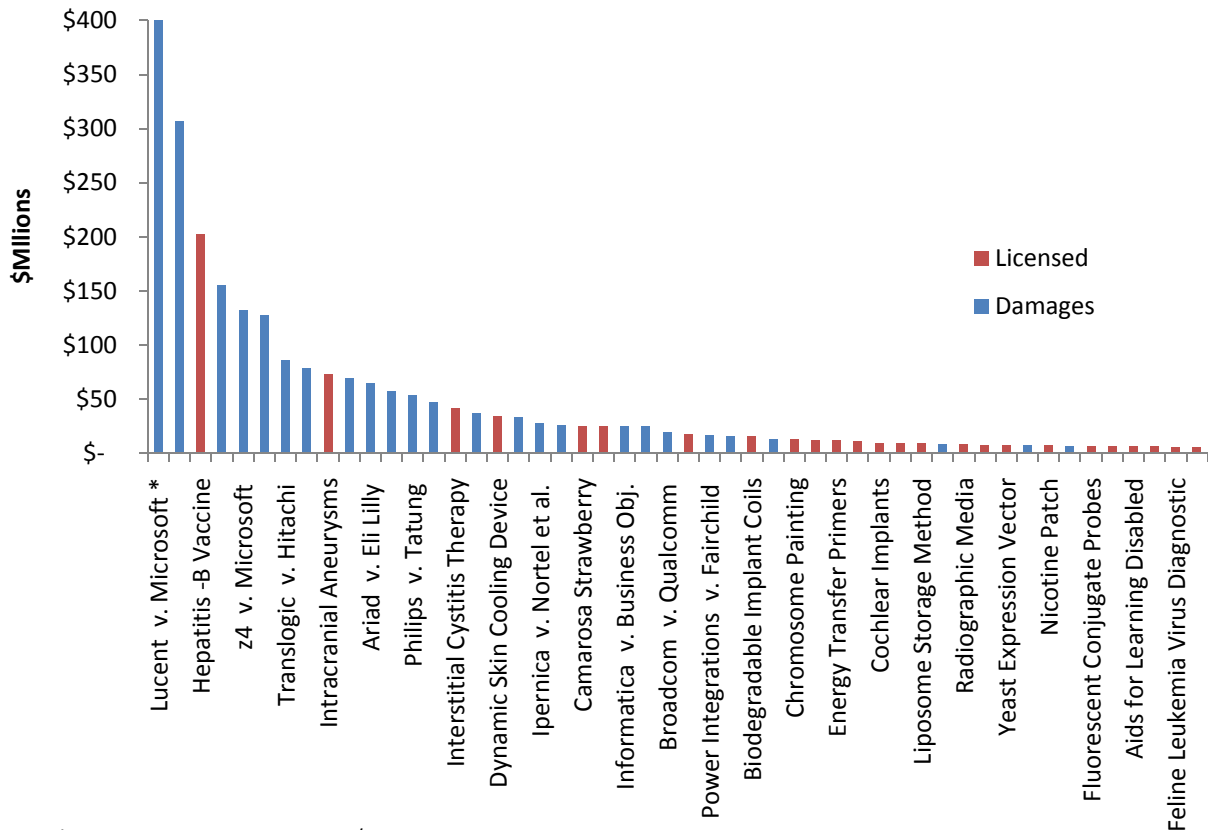


Source: University of California Office of Technology Transfer Annual Reports.

In the chart above, the earnings from the UC’s top inventions have been accumulated over 10 years to make them more comparable to jury awards that cover a multi-year period. In our experience, damages claims only rarely cover more than ten years and few go beyond five. We also note another couple of differences between these accumulated earnings and the damages awards: the earnings for the UC inventions may come from multiple licensees and have the possibility of covering multiple patents. Thus, we would expect the UC earnings from the licensed inventions to be displayed in a way that would tend to bias them higher than damages awards.

Taking the top 25 damages awards and comparing them to the top 25 UC-licensed inventions yields the expected result – the reasonable royalty damages awards dominate the amounts obtained in licensing:

Damages Awards and License Fee Comparison



* Truncated. Actual award \$1.5 b. Not all case or invention names displayed.

In aggregate, the top 25 damages awards amounted to \$2,948 million while the top 25 inventions totaled \$586 million – for a factor of just about five times. The top invention in the UC System – the Hepatitis B vaccine -- only brought in \$203 million in ten years of licensing. This compares with the Lucent v. Microsoft jury award of \$1.5 billion for a single patent relating to MP3. Thus the top damages award is over seven times the amount of the top earning invention from the University of California system. The median of the top 25 damages awards is \$37 million as compared to the median license fees of \$10 million.

We also compared UC licensing revenues to its own litigation awards and settlements. Over the past ten years, the UC has obtained \$844 million in license and fee income from its portfolio of 1,913 licensed inventions and another \$343 million from three litigation settlements.⁴ Thus, it would appear that UC itself is better off in court than in the licensing market.

⁴ Human Growth Hormone at \$200 million and Bovine Growth Hormone at \$100 million and were the two largest. Time did not permit an exhaustive search for UC damage awards.

These data indicate that courts systematically over-compensate patent holders for damages suffered. The authors recognize that this conclusion is dependent on the available data and would certainly benefit from the inclusion of data from more licensing entities. However, given that UC is a major licensor, that the means and medians are so far apart and that lost profit awards are so much smaller, we expect that the addition of more data would not change the basic conclusion that patent owners are better off in court.

One of the cautions that is raised with regard to any diminution of damages awards is that it will reduce the incentives to innovation. This argument is predicated on a few assumptions:

- 1) that patents are required for the innovators to pursue the innovation;
- 2) that the patentees are the only entities pursuing that innovation; and
- 3) that a lower level of return would not be sufficient to motivate the innovators.

In cases where the infringer independently developed the innovation and the innovator is not practicing the invention, the return is unnecessary compensation. These innovations would have been developed by the infringer in any event. In our experience, these situations are relatively common. It is quite rare for a patent infringer to have directly copied the patented innovation; most infringers developed the innovation on their own and were practicing it without any intention of patenting. Furthermore, the high proportion of reasonable royalty judgments described above points to the conclusion that the patent holder is not practicing the innovation.

As an example, we don't believe that reducing returns to patent holders would substantially affect UC's willingness to innovate or patent – the winning inventions would still be sufficiently attractive to be worth pursuing. In the UC system for any given year, approximately half of the total licensing income derives from the top 5 inventions and approximately 75% derive from the top 25 inventions. With 3,546 patents in its portfolio⁵, the UC system derives 75% of its income from approximately 1% of its patents.⁶

⁵ <http://www.ucop.edu/ott/genresources/documents/OTTRptFY08.pdf>

⁶ We say “approximately” because it is unclear what the relationship is between patents and inventions.