

State patent rankings: Delaware first, but California still leads

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SAN FRANCISCO — Delaware isn't the first state that comes to mind when thinking of U.S. high-tech hubs, but it's the top state in innovation and competitiveness by at least one measure: the percentage of international patent applications filed.

That's the result of research released Thursday (Nov. 1) by the Kansas City-based Kauffman Foundation. The study, "[U.S.-Based Global Intellectual Property Creation](#)," which ranked state, university and corporation patent application filings in 2006 and 1998.

Delaware was followed in the per-capita rankings by Massachusetts, Minnesota, California and Connecticut.

State rankings are based on the percentages of international patent applications per 100,000 workers that are filed under the Patent Cooperation Treaty (PCT). Administered by the [World Intellectual Property Organization](#), the treaty allows inventors use just one application to protect their IP in over 100 countries.

There's a reason for Delaware's relatively high numbers.

"The Delaware numbers are inflated because of the many companies that are incorporated there, but don't actually have their R&D facilities there," said John Rabena, a Washington-based patent attorney for the law firm Sughrue Mion.

In other states, the numbers more clearly reflect the reality of where R&D is taking place. "Most of the other states' numbers are more accurate. In California and Massachusetts, for example, the engineers are there," said Rabena, who specializes in electrical technology patents. PCT applications are more significant than those submitted to the U.S. Patent and Trademark Office (USPTO) when [measuring international innovation and competitiveness](#), according to study lead author Vivek Wadhwa.

"In the U.S. we're always focused on USPTO filings. They're important but they have nothing to do with our global competitors," said Wadhwa, Wertheim Fellow at Harvard Law School's Labor and Worklife Program. "What's changed in the last decade is that [global patents](#) are becoming more important."

PCT applications also cost more. Rabena said the report's overall conclusions are of greatest interest. "It is one way to tell where important technological advances are coming from because the PCT applications are more expensive."

The U.S. has seen a steady increase in PCT applications since 2003 and remains the top filer worldwide. But as other countries step up their tech competitiveness, the U.S. share of those applications has decreased from 37.4 percent to 34.1 percent.

In the state-by-state comparisons, Delaware produced 82.1 patents per 100,000 workers in 2006, up from 55.6 in 1998. It was first place in national rankings in 1998 as well.

Oregon, Vermont, and North Dakota zoomed up in their rankings while Idaho and Louisiana saw sharp declines.

The report found interesting juxtapositions, Wadhwa pointed out. Take the case of Massachusetts and California. Massachusetts had 79 patent applications per 100,000 workers, while California had 58.5, according to the study.

"That shows that the type of technology being developed in Massachusetts is a lot more globally focused than that in California," Wadhwa said.

Ohio came in at 26.7 while New York was responsible for only 30 applications per 100,000 workers. New York's numbers are a surprise, according to Wadhwa. "That's amazingly low," he said.

Wadhwa noted that what's more important is which states lead the charge. "The key thing is the states at the top," he said. "They're already competing nationally--this shows they are competing internationally."

Patent filings overall have increased from 1998, when the number of individual state patent filings ranged from 1.3 to 55.6, with 14.9 the average. In 2006, the upper end of the range was 82.1, with an average of 25.1.

Companies filed the greatest number of PCT applications: 92.2 percent of the total number in 2006, up from 91.1 percent in 1998.

Viewed from that perspective, rather than as a percentage of workers, California ranked first with almost one-quarter of all applications, followed by New York, Massachusetts, Texas and New Jersey.

Among company patent filers, 3M led the way with 618 applications followed closely by Qualcomm with 614. Other corporations in the top 25 included Intel, Motorola, and DuPont.

"What's surprising with the companies is who's missing: IBM," Wadhwa said. "I'm scratching my head on this one."

Universities and research institutions accounted for 7.8 percent of patent application filings in 2006, down from 8.9 percent in 1998.

The University of California system topped that category by a wide margin with 391 applications, accounting for 10.9 percent of all filings. The Massachusetts Institute of Technology was second, with 159 applications, or 4.4 percent of the total, followed by Columbia University with 95 applications, or 2.7 percent.

University and industry patents generally focus on different areas. Most university patent applications were in biological, testing and chemical-related areas, while industry's were in electronics and personal medical care.

It's important to note that a patent application doesn't equal a patent, though, said Keith Grzelak, chairman of the IEEE-USA intellectual property policy committee and an attorney in Spokane, Wash. Filing a patent application is a useful strategy to buy time while a business looks at its overseas opportunities, competitors, and costs, Grzelak said.

"Just because you file a PCT application doesn't mean you're going to end up pursuing a foreign national patent," he added.

More meaningful is determining how many patents companies actually receive, and where inventors reside, as opposed to how many applications are filed and where industry filers are based, Grzelak said.