

Where are all the patent agents?

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It's no secret that the costs of obtaining a patent can be a major obstacle for many entrepreneurial ventures. Filing fees charged by the USPTO are generally reasonable;¹ however, engaging a patent attorney to create the patent application, draft detailed claims, and negotiate with the patent examiner can be very costly. Patent attorneys often bill at a rate of \$250 per hour or more, and some charge upwards of \$600 per hour in particular situations.²

For cost-conscious entrepreneurs, attorney fees in the range of \$10,000 or more (a rough estimate of the cost of an average patent application), are more than the founders can afford on their own. This situation is further complicated by changes to the patent laws that occurred in 2013 as a result of the implementation of the Leahy-Smith American Invents Act, which removes many of the grace periods for filing, and creates strict rules regarding the timing of filing a patent application to avoid being permanently barred from doing so.³

This often leaves early stage ventures in the difficult situation of needing investor funds to pay a patent attorney who can draft a strong patent application. What the founders find, however, is that many investors only feel comfortable investing in ventures that have already filed for patent protection. It's the proverbial "Catch 22," and many entrepreneurs become distracted from advancing their business, trying to overcome this conundrum, potentially damaging their ability to protect their technology due to the delay in filing the patent application.

Cost Solution: Provisional Applications and Flat Fee Billing

One method that has been a "go to" for entrepreneurs in this situation has been the provisional patent application.⁴ By filing a provisional patent application, entrepreneurs can utilize a lower-cost alternative to a full utility application; easing investor worries about patent protection. But lower cost often comes with increased risk and/or lower quality. A poorly drafted provisional application may lack support for what is later claimed in the utility application, which may result in a loss of some or all of the entrepreneurs' ability to protect their invention.⁵

The easiest way to mitigate the risks associated with filing a provisional patent application instead of a full utility application is to have a qualified patent professional spend enough time drafting the provisional application in a way that helps to ensure that the later utility application won't run into major issues from a sloppily- or quickly-drafted provisional filing. Of course, this brings us back to the

¹ <http://www.uspto.gov/web/offices/ac/qs/ope/fee031913.htm>.

² <http://www.ipwatchdog.com/patent/patent-attorney-fees-explained/>.

³ <http://www.forbes.com/sites/robertjordan/2012/11/13/the-new-patent-law-end-of-entrepreneurship/>.

⁴ <http://www.uspto.gov/patents/resources/types/provapp.jsp>.

⁵ A low cost provisional application may also present new issues that the entrepreneurial team is often unaware of (and many entrepreneurs aren't aware of the rewards beyond a cheaper cost, either).

<http://www.bizjournals.com/boston/blog/mass-high-tech/2009/08/the-risk-and-reward-of-provisional-patent.html?page=all>.

cost considerations for the entrepreneurs. With many entrepreneurs facing this situation, patent practitioners have taken steps to help alleviate the cost factors. One methodology for addressing the cost issue is flat fee billing arrangements for patent drafting work. These flat fee agreements, often ranging from \$1000 for a basic provisional filing up to \$15,000 for comprehensive utility filings, help entrepreneurs budget for the total cost of drafting and filing the application. There are patent attorneys willing to lower their fees for smaller clients, too, and the USPTO has identified and responded to this issue by promoting *pro bono* initiatives with success in some cities.⁶

Non-Attorneys In Patent Drafting And Prosecution

Understanding the cost concerns and the technical expertise necessary to file a high quality patent application makes one wonder why there aren't more patent agents operating in the patent drafting and prosecution marketplace. The USPTO has created the "patent agent" designation so that patent drafting and prosecution activities are not considered to be the unauthorized practice of law, allowing a cheaper and faster option for eligible non-attorneys. Consequently, patent agents have not invested heavily in three years of law school, as a bachelor's degree in many engineering and science disciplines is sufficient to qualify to sit for the patent bar exam.^{7,8} Additionally, many patent agents – whether operating on their own or in cooperation with each other or other technologists – could perform key services without the burden of large overhead associated with many medium and large law firms.

From a cost perspective, patent agents should have many advantages *vis-à-vis* patent attorneys; however, the use of patent agents is not an option that crosses many inventors' or entrepreneurs' minds when they begin their search for competent patent representation. Why is that?

Some quick facts:

- At the time of this writing, there are 31,105 active patent attorneys registered with the USPTO and 10,762 patent agents.⁹
- Estimates indicate there are over 2 million engineers in the US.¹⁰
- The most recent census data shows 728,200 attorneys in the US.¹¹
- An updated estimate of the number of scientists in the US could not be found,¹² but the NSF estimated that there were over 600,000 life and physical scientists in the country in 1999.¹³

⁶ See <http://www.uspto.gov/inventors/proseprobono/>; see also <http://www.uspto.gov/inventors/independent/eye/201108/probono.jsp>; see also http://www.uspto.gov/aia_implementation/programs.jsp#heading-1.

⁷ <http://www.uspto.gov/web/offices/dcom/olia/oed/grb0210.pdf>.

⁸ The Examination for Registration to Practice in Patent Cases (i.e. the patent bar exam) is offered by the USPTO and eligibility is based on an applicant's technical education or background. The tested materials are found in the Manual of Patent Examiner Practice (MPEP) (see <http://www.uspto.gov/ip/boards/oed/exam/index.jsp>)

⁹ <https://oedci.uspto.gov/OEDCI/>.

¹⁰ <http://www.nspe.org/Media/Resources/faqs.html>.

¹¹ <http://www.bls.gov/ooh/legal/lawyers.htm>.

¹² Some authors suggest there are too many of them, for example: http://articles.washingtonpost.com/2012-07-07/national/35486154_1_research-jobs-life-sciences-scientists.

Working with these numbers, there are over 3.3 million engineers and scientists in the United States but only (approximately) 42,000 patent professionals registered with the USPTO. Even if we assume that only two-thirds of the engineers and scientists in the US are eligible to sit for the patent bar, that is still a rate of less than 2% of all those eligible that actually become registered agents or attorneys.

So what's going on? One would think that a market with high demand and fairly high pricing would attract more entrants and reduce prices. But that doesn't seem to be happening in the patent drafting and prosecution market, so there must be other forces at work. Here are a few factors that may affect the potential influx of patent professionals:

- a) The costs of becoming a registered patent agent are not insurmountable, but there are costs associated with the exam itself¹⁴ and also with many of the commercially available prep courses that students use to prepare for the exam.¹⁵
- b) Training for new patent professionals is usually taken on by the patent professionals' employers. Simply passing the patent bar exam does not adequately prepare someone for patent practice. Consequently, if an employer does not have immediate training opportunities for someone eligible to sit for the exam, that person may not see any immediate benefits to taking the exam.
- c) Many engineers and scientists are unaware that they may be eligible to sit for the patent bar exam simply by having an engineering or science degree.¹⁶

Law School Programs for Non-Attorneys

There are a few schools who see this need as an opportunity to serve a growing market. The Sandra Day O'Connor College of Law at Arizona State University¹⁷ and the Law School at the University of Notre Dame¹⁸ have created Master's degree programs that train individuals with a technical or scientific background who want a profession in patent drafting and prosecution, but not in the practice of law, *per se*. These programs should help create more competent – and more visible - patent agents who can assist entrepreneurs and small businesses at a reasonable price point, at least to the extent that the graduates of these programs are not gobbled up by law firms and tech companies.¹⁹ If more engineers

¹³ <http://www.nsf.gov/statistics/infbrief/nsf02325/>.

¹⁴ <http://www.uspto.gov/ip/boards/oed/prct-new/index.jsp>.

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<http://law.asu.edu/admissions/Admissions/MLSMasterofLegalStudiesProgram/MLSPatentPractice/Resources.aspx>

¹⁶ This comment is based on my personal experiences and is completely anecdotal. However, my experiences working with the Ira A Fulton School of Engineering and College of Liberal Arts and Sciences at Arizona State University indicate that most faculty and students are unaware that they may be eligible to sit for the patent bar.

¹⁷ My alma mater and current employer: <http://law.asu.edu/patentpractice>.

¹⁸ <http://patentlaw.nd.edu/>.

¹⁹ That said, employers' interest in professionals with these new degrees might bode well for affordability. According to Professor Karen Deak, Ph.D., Director of Notre Dame's Master of Science in Patent Law, recent graduates from Notre Dame's program have interviewed at large law firms, "boutique" firms specializing in intellectual property, and in-house corporate law departments. "Law firms like patent agents because they specialize in patent prosecution, which is increasingly being treated as a commodity," Professor Deak said. "Patent agents make good financial sense in terms of billable hour rates in this market."

and scientists enter these programs, or the profession of patent drafting, there may be an opportunity to significantly and beneficially impact the patent drafting and prosecution market. It isn't too difficult to anticipate a market in which many tech firms train their technologists to write patents for the company, engineering and scientific consulting firms can expand their service offerings by also offering patent work to their clients, technologists can "moonlight" by providing patent drafting and prosecution services to entrepreneurial ventures, and many entrepreneurs will themselves be trained to draft and prosecute their own patents.

Professor Michelle Gross at the Sandra Day O'Connor College of Law believes that the move can also be a wise career move for persons with technical and engineering degrees. "According to the American Intellectual Property Law Association (AIPLA), for patent agents having 5 or fewer years of experience, the median salary is \$95,000 and increases to \$145,500 for those having more than 15 years of experience. This high earning potential makes becoming a patent agent an attractive career option for recent graduates entering the job market as well as seasoned engineers and scientists who may have reached an income plateau," explains Professor Gross.

Obviously, there are hurdles to overcome to get there. There are questions about malpractice liability for patent agents and whether they would need to be insured in the same manner as patent attorneys. State laws limiting members of professional or service corporations also create questions about whether patent agents would be able to create professional corporations or professional limited liability companies for their practices, as patent lawyers do now, or to join in such entities with licensed attorneys.

Even recognizing that there are unanswered questions, the unmet needs in this market make it one that seems ripe for new entrants and the entrepreneurial disruption that they bring. These new entrants may have a significant impact on the intellectual property acquisition hurdles faced by many entrepreneurs and small businesses.