

**RACE YOU TO THE PATENT OFFICE!  
HOW THE NEW PATENT REFORM ACT WILL  
AFFECT TECHNOLOGY  
TRANSFER AT UNIVERSITIES**

*Alexa L. Ashworth\**

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\* B.A. (Chemistry) Hamilton College, 2009; J.D. (Intellectual Property) Albany Law School, 2012.

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### I. INTRODUCTION

The recent enactment of the Leahy-Smith America Invents Act (AIA) on September 16, 2011, marked a significant shift in the patent laws of the United States.<sup>1</sup> This Bill, proposed on March 30, 2011, was finally passed in both the House of Representatives and the Senate by September 8, 2011, and was introduced to President Obama on September 12, 2011.<sup>2</sup> Before this enactment, there had been no major changes to the substantive U.S. Patent laws since 1952, though case law has continued to shape some minor substantive and procedural policies.<sup>3</sup> While some changes to the new Patent Laws took effect on the date of enactment, many of them will be ‘phased-in,’ going into effect after the first 12 or 18 months.<sup>4</sup>

This paper will first further explore the significant changes and updates to the patent laws as a result of the enactment of the AIA. It will go through the updates and amendments to Patent Office proceedings, as well as the changes to the Prior User defense, and the updates as to how the funds of the United States Patent and Trademark Office (USPTO) will now be handled.

Second, arguably the most significant reform to the patent

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<sup>1</sup> Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1-375); See CNN Wire Staff, *Obama Signs Patent Reform Bill*, CNN POLITICS, Sept. 16, 2011, [http://articles.cnn.com/2011-09-16/politics/obama.patent.reform\\_1\\_patent-office-first-to-file-system-patent-reform?\\_s=PM:POLITICS](http://articles.cnn.com/2011-09-16/politics/obama.patent.reform_1_patent-office-first-to-file-system-patent-reform?_s=PM:POLITICS) (describing the significance of the bill).

<sup>2</sup> H.R. 1249, 112th Cong. (2011) (enacted). This Bill was passed in the House of Representatives on June 23, 2011 and passed in the Senate on September 8, 2011. H.R. REP. NO. 112-98(I) (2011), *reprinted in* 2011 U.S.C.C.A.N. 67, 2011 WL 2150541. It became Public Law (P.L. 112-29) on September 16, 2011, after being signed by the President. See CNN Wire Staff, *supra* note 1.

<sup>3</sup> See *US Patents - A Brief History: The US Patent Office*, THE-BUSINESS-OF-PATENTS, <http://www.the-business-of-patents.com/us-patents.html> (last visited March 22, 2013) [hereinafter *History of Patent Law*] (illustrating the history of patent law in the United States, with an emphasis on the beginning of the current structure of the law starting in 1952).

<sup>4</sup> See, e.g., 35 U.S.C.A. §§ 100, 111, 301 (West, Westlaw through P.L. 112-209 approved 12/18/12) (becoming effective between one year and eighteen months after the date of enactment). See also Mark J. Patterson & M. Andrew Pitchford, *First to File: ‘America Invents Act’ Changes Paradigm for Patents*, 47 TENN. B.J. 14, 14 (2011) [hereinafter *First to File*] (noting that the changes imposed by the act are “phased in over time”).

laws, the ‘first inventor to file’ provision, will be discussed in more detail, including the nuances to the new novelty provision, as well as how the changes affect the obviousness provision. In addition, this section will explore the possible advantages that universities will gain under the new patent laws, and how they might use these advantages to succeed in claims against larger commercial entities.

Finally, this paper will discuss policy considerations that are raised by the enactment of the new patent laws. Specifically, it will discuss how large and small entities may be affected by the new laws, especially the first-to-file provision. Further, it will discuss how the Bayh-Dole Act is the governing regulation for technology transfer at universities, and what reforms may need to be made to universities’ Intellectual Property policies in the future, to better conform with the newly enacted patent laws. As the new laws were enacted one year ago, it is still early for companies and universities who are most affected by these updates to realize the full effects these laws may have on the issuing of patents, as well as technology transfer at universities, and until they have fully gone into effect, there can only be inferences as to how they will affect the various stages of the patent process, and the overall patent system in the United States.

## II. HISTORY OF PATENT REFORM & TECHNOLOGY TRANSFER IN THE UNITED STATES

The United States has always recognized the right to protection of inventions, as it is a Constitutional provision,<sup>5</sup> and enacted the first Patent Act to reflect these Constitutional protections, in 1790.<sup>6</sup> While many changes and updates have been made since this first Act, the most recent update, the Leahy-Smith America Invents Act, has been the greatest scale reform to Patent Law in over 50 years.<sup>7</sup> As the value of intellectual property has become increasingly vital to the domestic economy, as well as the importance of foreign

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<sup>5</sup> U.S. CONST. art. I § 8 (“Congress shall have power . . . to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries”).

<sup>6</sup> *History of Patent Law*, *supra* note 3.

<sup>7</sup> *See id.* (noting that the foundation for modern Patent law was laid in 1952).

relations, a need for change had become apparent in the last decade.<sup>8</sup> Beginning in 2005, the government attempted to introduce a variety of patent reform bills to Congress, however, none of these bills were ever successfully passed by Congress and presented to the President for ratification.<sup>9</sup> Finally, in 2011, both the House of Representatives and Senate passed their versions of the proposed bill, and President Obama signed it into law on September 16, 2011.<sup>10</sup>

Converse to the patent system, an organized system for technology transfer in the United States is relatively new. The concept of technology transfer began to flourish in the 1940's, in part, as a result of increased technological output from World War II during this time.<sup>11</sup> While the government contracted out many of its research projects to universities, nonprofit organizations, and certain companies, absent a uniform intellectual property policy and efficient government regulations, this technology was not able to be effectively licensed or commercialized.<sup>12</sup> By the 1960's, the government recognized a long-felt need for a more functional and uniform technology transfer system in the United States.<sup>13</sup> Over time, technology transfer policies were developed and implemented, leading to the passage of the Bayh-Dole Act in 1980, which continues to regulate government funding and technology licensing at universities to this day.<sup>14</sup> This Act sought to advance commercialization of technology, and did so in part by ensuring that federally-funded inventions from universities could be licensed out by their inventors, and were not kept

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<sup>8</sup> See Jonathan W. Parthum, Philippe J.C. Signore & Stephen G. Kunin, *Keeping Up With Patent Law in 2011*, 28 COMPUTER & INTERNET LAW. 1, 2 (July 2011), available at [http://www.oblon.com/sites/default/files/news/Parthum\\_Signore\\_Kunin\\_Computer\\_Internet\\_Lawyer2011.pdf](http://www.oblon.com/sites/default/files/news/Parthum_Signore_Kunin_Computer_Internet_Lawyer2011.pdf) (citing to the increase in legislative activity regarding Patent Law in the US government).

<sup>9</sup> *Id.* at 2.

<sup>10</sup> H.R. REP. NO. 112-98(I) (2011), reprinted in 2011 U.S.C.C.A.N. 67, 2011 WL 2150541; Zach Carter, *Patent Reform Bill Signed into Law After Years of Debate*, HUFFINGTON POST (Sept. 16, 2011, 12:06 PM), [http://www.huffingtonpost.com/2011/09/16/patent-reform-obama\\_n\\_966136.html](http://www.huffingtonpost.com/2011/09/16/patent-reform-obama_n_966136.html).

<sup>11</sup> *Technology Transfer: The History*, INDUS. PARTNERSHIPS OFF., <https://ipo.llnl.gov/data/assets/docs/TechTransfer.pdf> (last visited Mar. 22, 2013).

<sup>12</sup> *Id.*

<sup>13</sup> *Id.*

<sup>14</sup> *Id.*

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under government control.<sup>15</sup>

### III. THE LEAHY-SMITH AMERICA INVENTS ACT

The following sections will describe in detail some of the most important changes that were implemented in the AIA, including updates to USPTO proceedings, the prior use defense, funding changes, and the first inventor to file provision. This section will also describe how these amendments may affect technology transfer both at universities, and in industry.

#### *A. Patent & Trademark Office Proceedings*

The new legislation, among other changes, provides for new and expanded procedures for challenging, or even preventing, the issuance of a patent.<sup>16</sup> With the implementation of a new patent system, there is a danger of redundant patents popping up in the USPTO.<sup>17</sup> There are now 7 total post-grant challenges under our patent laws, some set up, or improved upon under the AIA, to better deal with patents that may require a second examination.<sup>18</sup> These procedures allow challenges to patents without the need for litigation in court and they allow for a quicker, less expensive way to bring attention to a patent or application that may have a procedural or substantive problem.<sup>19</sup> While these procedures will arguably have the least effect on technology transfer at universities, it is still worth briefly mentioning some of the more important aspects of these new proceedings amended to the AIA.

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<sup>15</sup> *Id.*

<sup>16</sup> *See First to File, supra* note 4, at 17 (“The America Invents Act creates and expands opportunities for early intervention by third-parties to prevent or challenge the granting of a patent.”).

<sup>17</sup> David Kappos, U. S. Undersec’y of Commerce for Intellectual Prop.; Dir. of the U.S. Patent and Trademark Office, Lecture at Rensselaer Polytechnic Institute: Impact of the America Invents Act on Universities 01:11 to 01:14 (Apr. 12, 2012), *available at* <http://mediasite.itops.rpi.edu/Mediasite5/Play/339e89c252914c31b379c59562fb16a41d>.

<sup>18</sup> *Id.* at 01:14 to 01:16.

<sup>19</sup> *Id.*

### 1. Third Party Pre-Issuance Submissions

One proceeding that has been added to the AIA is a procedure for third-party pre-issuance submissions.<sup>20</sup> Under this section, any third party may submit any potentially relevant patent application, printed publication, or patent during the prosecution of a patent application, as long as a statement of relevance is included.<sup>21</sup> This procedure will become effective on September 16, 2012, one year after the AIA's date of enactment and applies retroactively to patents filed before that date, as well as to all patents filed after the date of enactment.<sup>22</sup> While this procedure most likely will have little to no effect on technology transfer in the United States, it does give the public an opportunity to submit information relevant to the prosecution of a patent, thus, likely aiding the PTO examiners in a more thorough and fair examination of each patent application.

### 2. Post-Grant Review

A procedure for a 'post-grant review' was also included in the new patent legislation.<sup>23</sup> This proceeding allows any person to bring a challenge to a newly issued patent, within nine months after that patent has issued.<sup>24</sup> To succeed on a post-grant review, the challenger must show "that it is more likely than not that at least [one] of the claims challenged in the petition is unpatentable."<sup>25</sup> While this may seem like a difficult standard to meet, "[t]he evidentiary burden is lower than what would be required to challenge patent validity in litigation."<sup>26</sup> As with the procedure for pre-issuance prior art

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<sup>20</sup> Leahy-Smith America Invents Act § 8, Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1-375).

<sup>21</sup> 35 U.S.C.A. § 122(e) (West, Westlaw through P.L. 112-209 approved 12/18/12); *Patent Reform 2011: The "America Invents Act": What You Need to Know*, FISH & RICHARDSON 28 (Sept. 20, 2011) [hereinafter *Patent Reform*], <http://www.fr.com/files/Uploads/Documents/Patent-Reform-slides-for-Webinar-09-20-2011.pdf>.

<sup>22</sup> 35 U.S.C.A. § 122(e) (West, Westlaw through P.L. 112-209 approved 12/18/12); Leahy-Smith America Invents Act § 8, Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1-375).

<sup>23</sup> Leahy-Smith America Invents Act § , Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1-375).

<sup>24</sup> *Id.*; *Patent Reform*, *supra* note 21, at 29.

<sup>25</sup> 35 U.S.C.A. § 324(a).

<sup>26</sup> *First to File*, *supra* note 4, at 17. This offers even more proof that this procedure will likely be quite popular once it is enacted, and likely to be

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submissions, this proceeding will go into effect September 16, 2012, one year after the date of enactment of the AIA.<sup>27</sup>

Though this procedure is new under the AIA, and gives the opportunity for an out-of-court challenge to a patent's validity, some argue that it will take-off, and that this opposition procedure will be widely used in the future.<sup>28</sup> Further, assuming that this practice does become widely used, it will likely create more jobs and work for future attorneys practicing in this area of the law.<sup>29</sup> One patent attorney has even suggested that the AIA's new procedures, in particular the post-grant review process (because of the limited time frame) will necessitate that patent attorneys more closely watch their competitors, in order to meet these tight deadlines for any procedures or proceedings they wish to bring before the USPTO.<sup>30</sup>

### 3. *Inter Partes* Review

*Inter Partes* review is a procedure that will become effective September 16, 2012, one year from the date of enactment of the AIA, and provides for an *Inter Partes* reexamination procedure to transition in the new provision.<sup>31</sup> The *Inter Partes* review allows attacks on patents after the window for the Post-Grant review procedure has closed (nine months after the patent has issued), and changes the threshold question that must be met from a showing of "a substantial new question of patentability affecting any claim" to the new standard of, "a reasonable likelihood that the petitioner would prevail with respect to at least [one] of the claims challenged

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diligently monitored and practiced by many firms and companies, in order to reap its full benefits. *See id.* ("Your clients can lower their patent liability risks by: (a) becoming more vigilant in monitoring competitive patent activity; and (b) using their acquired knowledge to proactively exploit one or more of these new and expanded patent challenge processes.").

<sup>27</sup> Leahy-Smith America Invents Act § 6, Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1-375).

<sup>28</sup> See Steven T. Taylor, *Historic Patent-Reform Legislation Keeps IP Attorneys Busy and Will Likely Boost Hiring in this Hot Practice Area*, OF COUNSEL Nov. 2011, at 2 (suggesting that attorneys' workload will increase as a result of the post-grant review provision).

<sup>29</sup> *Id.* at 1-2.

<sup>30</sup> *Id.* at 19.

<sup>31</sup> Leahy-Smith America Invents Act § 6, Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1-375); *Patent Reform*, *supra* note 21, at 32.

in the request.”<sup>32</sup>

#### 4. *Ex Parte* Reexamination

While most of the proceedings under the AIA are completely new, or are updates to existing procedures, the procedure for *Ex Parte* reexamination remains unchanged under the AIA.<sup>33</sup> Under this substantively unamended office procedure, “[a]ny person at any time may file a request for reexamination by the Office of any claim of a patent on the basis of any prior art.”<sup>34</sup> The threshold question still remains, that the existence of “a substantial new question of patentability affecting any claim of the patent concerned” must be shown, as determined by the Director of the USPTO.<sup>35</sup> As this proceeding has not been substantively altered under the AIA, there will be no changes as to how it affects technology transfer at universities after the enactment of the AIA.

#### 5. Supplemental Examination

The AIA has been amended to include a Supplemental Examination procedure as well, which is a procedure that is supposed to benefit the patentee.<sup>36</sup> Under this procedure, a patentee may protect themselves against potential future “inequitable conduct.”<sup>37</sup> A patentee, on their own motion, may submit any information to the Patent Office, and within three months following the filing of a request for reexamination, the Director will determine whether a “substantial new question of patentability” affecting any claim of the patent concerned is raised by the request, with or without consideration of other patents or printed publications.<sup>38</sup> Any information that is submitted and any examination that takes place will not render a patent unenforceable, but merely gives the patentee a chance to bring forth information on his or her own, before

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<sup>32</sup> 35 U.S.C.A. § 314(a) (West, Westlaw through P.L. 112-209 approved 12/18/12); *Patent Reform*, *supra* note 21, at 27, 32–33.

<sup>33</sup> *Patent Reform*, *supra* note 21, at 34.

<sup>34</sup> 35 U.S.C.A. § 302.

<sup>35</sup> 35 U.S.C.A. § 303(a).

<sup>36</sup> Leahy-Smith America Invents Act § 12, Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1–375); *Patent Reform*, *supra* note 21, at 35.

<sup>37</sup> *Patent Reform*, *supra* note 21, at 35.

<sup>38</sup> 35 U.S.C.A. § 257 (a)–(b) (West, Westlaw through P.L. 112-209 approved 12/18/12); *Patent Reform*, *supra* note 21, at 35.

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adverse parties may raise any allegations against the patentee.<sup>39</sup> In fact, under this provision, patentees *must* assert supplemental examination before any allegations are raised by other parties in order to prevent the patent from potentially being held unenforceable.<sup>40</sup> As there were no specific supplemental examination procedures outlined in the former Patent Laws,<sup>41</sup> it will be interesting to see how, and if, this provision is used by companies or universities to protect themselves from potential attacks by other parties.

It appears that, with so many other new proceedings in place under the AIA, the supplemental examination procedure may be used less, as it is more of a defensive proceeding. As companies want to make money, they will likely be more forward looking under new filing procedures, and have to move much quicker to turn out patent applications before other companies and universities. Thus, they will be as equally concerned with their competition, as with their own internal system, and will likely use other procedures, such as post-grant review to try to challenge their competitor's patents, as opposed to bringing procedures to further protect their own.

## 6. Derivation Proceedings

The final significant amendment in the AIA that provides for proceedings at the Patent and Trademark Office is the derivation proceeding. This proceeding was enacted to transition-out the interference proceedings under the old patent act, which are no longer necessary under the reformed laws.<sup>42</sup> Any claims having an effective filing date before March 16, 2013 will still be covered under the interference proceeding process, until the derivative proceedings are fully enacted, on March 16, 2013.<sup>43</sup> It is not a coincidence that

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<sup>39</sup> Leahy-Smith America Invents Act § 12, Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1-375); *Patent Reform*, *supra* note 21, at 35.

<sup>40</sup> 35 U.S.C.A. § 257(c).

<sup>41</sup> *See* Leahy-Smith America Invents Act § 12, Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1-375) (setting forth a procedure for supplemental examinations).

<sup>42</sup> *Patent Reform*, *supra* note 21, at 26, 36.

<sup>43</sup> *See* Leahy-Smith America Invents Act § 3, Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1-375) ("The amendments made by this subsection shall take effect upon the expiration of the 18-month period beginning on the date of the enactment of this Act"); *Patent Reform*, *supra* note

derivation proceedings will be fully enacted at the same time as the first-to-file proceedings,<sup>44</sup> as these proceedings will be the patentee's method of proving priority under the new laws.<sup>45</sup>

Under derivation proceedings, the claimant must bring a proceeding within one year of the claim's first publication and show proof that the claim in the application was derived from another inventor.<sup>46</sup> This proceeding provides that if a claimant can show that a claim was derived from another inventor, those claims will be invalidated.<sup>47</sup> This proceeding will be arguably the most used, once it is enacted, as it is the most direct way for patent applicants to invalidate the claims of other applicants and obtain priority. As the race to file for patents will likely get more intense with the new first-to-file system, this proceeding will be instrumental in the race for priority, which will be discussed in more detail in Section III D.

### *B. Changes to the Prior Use Defense*

An additional amendment to the AIA provides for an update to the prior use defense. Essentially, the prior use defense is an affirmative defense that can be raised in an infringement action, stating that the alleged infringer had, in good faith, been commercially using the subject matter in question in the United States.<sup>48</sup> Though this defense was in the prior patent act, it had "only provide[d] a defense to certain business method claims."<sup>49</sup> The new Act has expanded this defense to cover any "subject matter consisting of a process, or consisting of a machine, manufacture, or composition of matter used in a

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21, at 36.

<sup>44</sup> See *infra* Part III.D (noting that the first to file proceedings will become effective on March 16, 2013).

<sup>45</sup> *Patent Reform*, *supra* note 21, at 27, 36. This is analogous to how interference proceedings were used to claim priority under the former patent laws. See 35 U.S.C.A § 135(a) (West, Westlaw through P.L. 112-209 approved 12/18/12).

<sup>46</sup> See Leahy-Smith America Invents Act § 3, Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1-375); *Patent Reform*, *supra* note 21, at 36.

<sup>47</sup> *Patent Reform*, *supra* note 21, at 36; Leahy-Smith America Invents Act § 3(h)-(j), Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1-375).

<sup>48</sup> Leahy-Smith America Invents Act § 5(a), Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1-375).

<sup>49</sup> *Patent Reform*, *supra* note 21, at 19.

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manufacturing or other commercial process,” thus covering basically any type of patent.<sup>50</sup>

This provision may prove to be quite useful to universities in the future, as there is a carved out exception, which precludes the use of this defense against any patentable subject matter put forth by a federal government funding agreement, or a nonprofit institution of higher education, like a university.<sup>51</sup> This exception stems from a policy-based recognition that any innovation occurring at the university level is likely to more basic.<sup>52</sup> Getting this basic technology into the research and development stream for further refinement is the main goal of inventors at universities, thus, this provision enables this fundamental technology to be moved forward, without outside hindrance in its early stages.<sup>53</sup> For example, if Corporation has developed and used a technology in the United States for a year and a half, and University independently invented the same technology and filed for a patent on it, Corporation could not raise the affirmative defense of prior use if University were to commence an action for infringement against Corporation. This added protection for small entities and universities is seen in a few of the new provisions throughout the AIA, some of which will be discussed later in greater detail.<sup>54</sup>

### *C. Funding Changes*

Though not nearly the most significant change to the Patent Laws of the United States, there are a few changes in funding and entity status that came out of the AIA that are worth mentioning. First, all fees due to the Patent Office are set to increase by 15%, which will take effect immediately.<sup>55</sup> The enactment of the AIA also puts the Patent Office in more direct control over the fees collected than it has been in the

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<sup>50</sup> Leahy-Smith America Invents Act § 5(a), Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1-375). This amendment becomes effective upon the date of enactment of the AIA, September 16, 2011, and so can be applied to any patent issued on or after this date. *Id.* § 5(c).

<sup>51</sup> *Id.* § 5(a).

<sup>52</sup> Kappos, *supra* note 17, at 1:19 to 1:21.

<sup>53</sup> *Id.*

<sup>54</sup> *See infra* Section III.C.

<sup>55</sup> Leahy-Smith America Invents Act § 11(h)-(j), Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1-375).

past.<sup>56</sup> The Office will now have the power to set its own fees, as well as place any excess fees collected in escrow, and petition for their use by the Office.<sup>57</sup> Most significantly for the USPTO, Congress will no longer be able to come in and take the collected fees for their own use; this will hopefully give the USPTO the financial capital it needs to update and expand its resources for its patent review process.<sup>58</sup>

While any entity that had “small-entity status” under the previous legislation could enjoy a 50% reduction in all filing, examining, and maintenance fees,<sup>59</sup> a new category, the “micro-entity” was established, giving a 75% reduction in all fees.<sup>60</sup> A “micro-entity,” under the AIA, is “an applicant who . . . has not been named as an inventor on more than [four] previously filed patent applications,” among other criteria.<sup>61</sup> Another way to qualify as a “micro-entity” under the AIA is that the entity is, or is associated with, an institution of higher education.<sup>62</sup> It appears as though, in keeping with the goals behind the AIA, this new category will help to drive innovation, especially among smaller companies and universities, as with this reduction in fees owed, they will be able to afford to keep up with the larger companies.

#### *D. First-Inventor-to-File*

The most widely-known and discussed amendment to the AIA is probably the change to the language of the novelty standard, which shifts the United States from a ‘first-to-invent’ country, to a ‘first-to-file’ country.<sup>63</sup> Specifically, the

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<sup>56</sup> See J. Nicholas Hoover, *5 Key Facts About Patent Reform Act*, INFORMATION WEEK (Sept. 9, 2011, 4:33 PM), <http://www.informationweek.com/news/government/policy/231601154> (pointing out that Congress used to set the fees and control the budget).

<sup>57</sup> *Id.*

<sup>58</sup> Leahy-Smith America Invents Act § 22(a), Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1-375); Hoover, *supra* note 56.

<sup>59</sup> Leahy-Smith America Invents Act § 10(b), Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1-375).

<sup>60</sup> *Id.* § 10(b), (g).

<sup>61</sup> 35 U.S.C.A. § 123(a)(2) (West, Westlaw through P.L. 112-209 approved 12/18/12).

<sup>62</sup> *Id.* § 123(d).

<sup>63</sup> Compare Leahy-Smith America Invents Act § 3(b), Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1-375) (noting the language after the enactment of AIA), with 35 U.S.C.A. § 102(a) (noting the language before enactment of AIA).

new patent reform legislation provides that:

A person shall be entitled to a patent unless—(1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention; or (2) the claimed invention was described . . . under section 122(b), in which the patent or application, as the case may be, names another inventor and was effectively filed before the effective filing date of the claimed invention.<sup>64</sup>

This new text may seem simple and straightforward on its face; the first inventor to file is the one who gets the patent. However, this concept that the first inventor to file will receive the patent, regardless of any other work that inventor has done is not new. For example, Japan has adopted, and has continued to use the first-to-file system as a part of their patent application process requirements.<sup>65</sup> Similarly, the European Patent Office has long held that the first inventor to file for their patent will be awarded priority rights.<sup>66</sup> With the new change to a first-to-file system in the United States, patent law will now be uniform, at least in this provision of the Act, with most other patent offices throughout the world.<sup>67</sup>

Even though this new provision may be the most currently discussed, its nuances are not understood by many, and will probably not be able to be fully understood until it is utilized, after it is enacted in March 2013. The following section further discusses the exceptions and nuances of the first-inventor-to-file provision.

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<sup>64</sup> Leahy-Smith America Invents Act § 3(b), Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1–375).

<sup>65</sup> *Outline of Right Obtainment: Procedures for Obtaining a Patent Right*, JAPAN PATENT OFFICE, [http://www.jpo.go.jp/cgi/linke.cgi?url=/tetuzuki\\_e/t\\_gaiyo\\_e/pa\\_right.htm](http://www.jpo.go.jp/cgi/linke.cgi?url=/tetuzuki_e/t_gaiyo_e/pa_right.htm) (last visited March 22, 2013) (“Japan has adopted the first-to-file system, i.e. the principle that where two parties apply for a patent for the same invention, the first party to file will be granted the patent.”).

<sup>66</sup> DONALD M. CAMERON & JORDANA SANFT, “SECRET” PRIOR ART: EUROPE AND JAPAN—A DIFFERENT VIEW, 1 (2003), *available at* <http://www.jurisdiction.com/secretpriorart.pdf>; *see* EUROPEAN PATENT OFFICE, GUIDELINES FOR EXAMINATION IN THE EUROPEAN PATENT OFFICE (June 2012), *available at* [http://documents.epo.org/projects/babylon/eponet.nsf/0/6c9c0ec38c2d48dfc1257a21004930f4/\\$FILE/guidelines\\_for\\_examination\\_2012\\_en.pdf](http://documents.epo.org/projects/babylon/eponet.nsf/0/6c9c0ec38c2d48dfc1257a21004930f4/$FILE/guidelines_for_examination_2012_en.pdf).

<sup>67</sup> *See* CNN Wire Staff, *supra* note 1 (explaining how the AIA will provide clarity to the patent-granting—file process and how the first-to-file system is the “predominant method used by the vast majority of industrialized countries”).

## 1. Or . . . First Inventor to Publish?

Arguably the most dramatic, and likely the most impacting change to the Patent Laws in the United States is the provision in the AIA which provides for a shift from a first-to-invent system, to a first-to-file system.<sup>68</sup> Some attorneys and scholars have already predicted, and what this paper tries to explore further, is that the new first-to-file system is in reality a system that awards those entities who are the first to disclose their inventions, rather than the first to actually file them with the Patent and Trademark Office.<sup>69</sup>

Looking at the language of the AIA, 35 U.S.C. § 102(b), we can see what the exceptions are to the prior art rules of § 102(a), and further explore how these exceptions might affect technology transfer. Section 102 (b), as amended, states in relevant part:

A disclosure made 1 year or less before the effective filing date of a claimed invention shall not be prior art to the claimed invention under subsection (a)(1) if (A) the disclosure was made by the inventor or joint inventor or by another who obtained the subject matter disclosed directly or

indirectly from the inventor or a joint inventor; or (B) the subject matter disclosed had, before such disclosure, been publicly disclosed by the inventor or a joint inventor or another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor.

. . . .

A disclosure shall not be prior art to a claimed invention under subsection (a)(2) if . . . the subject matter disclosed had, before such subject matter was effectively filed under subsection (a)(2), been publicly disclosed by the inventor . . . or another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor.<sup>70</sup>

Upon a careful reading of these two sections, it seems that the exceptions to the first-to-file provision almost completely

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<sup>68</sup> Leahy-Smith America Invents Act § 3(b), Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1-375).

<sup>69</sup> See Jake Neu & J. Mark Bledsoe, *First to Invent, First to File, or First to Disclose?: Patent Reform's Real Incentive*, INTELL. PROP. NEWS (Dec. 9, 2011), available [at](http://www.babc.com/files/Uploads/Documents/Intellectual_Property_News_Dec_8_2011.pdf) [http://www.babc.com/files/Uploads/Documents/Intellectual\\_Property\\_News\\_Dec\\_8\\_2011.pdf](http://www.babc.com/files/Uploads/Documents/Intellectual_Property_News_Dec_8_2011.pdf) (discrediting the first-to-file system).

<sup>70</sup> Leahy-Smith America Invents Act § 3(b), Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1-375).

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encompass the rule. Under the first exception, § 102(b)(1), even if the subject matter of an invention was disclosed or published before the effective filing date of the invention, it is *not* considered prior art, a dramatic change from the old patent laws.<sup>71</sup> Further, any prior disclosures appearing in applications and patents will not be considered prior art for inventors applying to get a patent on that subject matter, as long as it was obtained directly or indirectly from the inventor(s) or if it had been publicly disclosed by the inventor(s) before the patent application was effectively filed.<sup>72</sup> This section is fairly wordy and has many nuances, so again, the full effect of how this will impact disclosures and filing for patents will probably not be known until this section becomes effective.

To better illustrate how the new filing system would treat certain priority situations, the following example is provided:

Suppose that Corporation and University are both heavily devoted to research in Bioinformatics. On January 1, 2012, Corporation makes a great discovery in the midst of their Bioinformatics research. On January 31, 2012, University makes the same discovery in the course of their independent research, on the same issue, and a week later, on February 8, 2012, the Bioinformatics researchers at University publish their revolutionary findings. However, on March 1, 2012, Corporation files a patent application for its invention. On April 1, 2012, University then submits a patent application for its (same) invention.<sup>73</sup>

Which entity would be awarded the patent in this scenario? Under the former patent regime, whichever entity could prove that they were the first to conceive of the invention, and continued diligence in working on the invention until the time of filing, would be awarded the patent.<sup>74</sup> Under the current

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<sup>71</sup> Compare 35 U.S.C.A. § 102(b)(1)–(2) (West, Westlaw through P.L. 112-209 approved 12/18/12), with Leahy-Smith America Invents Act § 3(b). Under the former patent laws in the United States, any invention that was previously published or described was not entitled to a patent in the United States, because it lacked novelty. See 35 U.S.C.A. § 102(a)–(b), (e).

<sup>72</sup> Leahy-Smith America Invents Act § 3(b), Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1–375).

<sup>73</sup> Yaasha Saabaghian, Law Student, Hypothetical Created for an In-class Presentation at Albany Law School (2011) (on file with author). See Neu & Bledsoe, *supra* note 69.

<sup>74</sup> See 35 U.S.C.A. § 102. Interference proceedings are now replaced by

patent regime, the first instinct might be to assume that whoever was the first to file their patent application would be awarded the patent, as this is the provision in the new law.<sup>75</sup> However, upon a closer reading of the AIA's amended novelty and prior art definitions, this rule in fact, allows University to receive the patent, though they were the second entity to file for the patent.<sup>76</sup> This situation illustrates one of the exceptions from the text above, § 102(b), which removes the disclosures from the prior art, ultimately negating University's disclosure as prior art.<sup>77</sup> Here again, we see that the newly enacted laws have a few sections that specifically carve out exceptions in order to help universities and small entities.<sup>78</sup>

a. How Changes to Obviousness are Affected

While the main focus of this text has been the changes to the novelty provision under the AIA, it is also worth mentioning the changes made to the obviousness provision. In addition to novelty, a patent applicant must also show that their invention is non-obvious to be granted patent protection under the Patent Laws, and this section has been updated to compliment the changes made to the novelty requirement.<sup>79</sup> Following is the relevant text to this updated provision:

A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by

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derivation proceedings, as there is no reason for them to be used anymore, as proving first-to-invent under the new system no longer grants the patent applicant any rights. *See* Leahy-Smith America Invents Act § 3(b), Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1-375).

<sup>75</sup> Leahy-Smith America Invents Act § 3(b), Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1-375). It is important to note here, that like some of the other new patent provisions, the first-inventor-to-file provision will not become effective until March 16, 2013, 18 months from the date of enactment of the AIA. *Id.*

<sup>76</sup> *Id.* at § 5(a).

<sup>77</sup> *Id.* at §§ 3(b), 5(a).

<sup>78</sup> *See supra* Part III B-C (specifically discussing the University carve out exceptions).

<sup>79</sup> Leahy-Smith America Invents Act § 3(c), Pub. L. No. 112-29, 125 Stat 284 (2011) (codified at 35 U.S.C. §§ 1-375).

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the manner in which the invention was made.<sup>80</sup>

The standard for obviousness has not changed under the new laws, however, there is a ‘disclaimer’ in this section, confirming that any disclosures that qualify as prior art under the new § 102 novelty provision will not be counted against a patent applicant in an obviousness inquiry.<sup>81</sup>

## 2. Policy Considerations: What Does A First-to-File System Really Mean for Various Entities?

While many advocates of the Patent Reform Act have been eagerly awaiting these changes to the current law, and look favorably to these updates, others are fearful for what a ‘first-to-file’ system might mean for them.<sup>82</sup> For sole inventors and small companies, the fear is that big corporations, with more financial resources, will be able to churn out applications much faster, thus leaving the small companies without a fighting chance to win in the race to file first.<sup>83</sup> However, the USPTO has promoted the reform as quite the opposite; the USPTO has maintained that the new provisions of the AIA will only further promote innovation in our country, which was the ultimate goal of the Act, and will make the whole process simpler, and more streamlined, for all inventors alike.<sup>84</sup>

### a. Big Corporations versus Sole Inventors

A big policy concern that has been associated with the recent enactment of the AIA, and more specifically, the adoption of the ‘first-to-file’ provision, is how this will affect small companies and independent innovators, specifically those of start-up companies at universities, in the United

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<sup>80</sup> *Id.*

<sup>81</sup> Compare *id.* with 35 U.S.C.A. § 103 (a)–(c) (West, Westlaw through P.L. 112-209 approved 12/18/12).

<sup>82</sup> *Proposed First-to-File System: Advantages & Disadvantages*, INTELLECTUALPROPERTYLAWFIRMS.COM, <http://www.intellectualpropertylawfirms.com/resources/intellectual-property/patents/first-to-file.htm> (last visited March 22, 2013).

<sup>83</sup> You're the Boss Editors, *Will The New Patent Laws Help or Hurt Small Businesses?*, N.Y. TIMES BLOGS (Feb. 8, 2012, 1:10 PM), <http://boss.blogs.nytimes.com/2012/02/08/will-the-new-patent-laws-help-or-hurt-small-businesses/>.

<sup>84</sup> Kappos, *supra* note 17, at 00:25 to 00:30, 01:10 to 01:20.

States.<sup>85</sup> Will bigger companies with more money always win in a first-to-file system? The Director of the USPTO, David Kappos, has some interesting insight as to how this provision will likely affect smaller companies.<sup>86</sup>

Kappos believes that this new first to file system will actually change very little in practice from the former 'first-to-invent' system.<sup>87</sup> Under a 'first-to-invent' system, the accurate recording and proof of conception and reduction to practice by an inventor is the most important thing, and will allow anyone who can prove they perfected these steps first to have a patent on their invention, regardless of whether they filed second.<sup>88</sup> The USPTO pulled data from their records to figure out how many times a smaller entity, which invented first but waited to file their patent application, won in an interference contest against a big corporation.<sup>89</sup> It was necessary to go back over one million filings with the USPTO before finding one case where a small entity won an interference proceeding, by proving they were the first to invent, though they filed second.<sup>90</sup> This data is very interesting because it shows that the United States was effectively operating under a first-to-file system, even before the adoption of the first-to-file rules under the AIA.<sup>91</sup>

Further, Kappos believes that the old patent system was heavily disadvantageous to sole inventors and small start-up companies, because any of these 'little guys' wanting to participate in an interference proceeding had a big challenge ahead of themselves.<sup>92</sup> These proceedings were timely and very expensive, a cost that many small companies likely could not afford.<sup>93</sup> However, under the first-to-file system of the AIA, there is a minimal fee to buy a provisional application, and each inventor then has one year to develop their

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<sup>85</sup> You're the Boss Editors, *supra* note 83.

<sup>86</sup> Kappos, *supra* note 17, at 00:43 to 00:50.

<sup>87</sup> *Id.*

<sup>88</sup> See 2300 USPTO. MPEP 1 (8th ed. Rev. 4, Oct. 2005), *available at* <http://www.uspto.gov/web/offices/pac/mpep/> (showing an interference proceeding, which was the procedure implemented under the old patent laws in which inventors could claim priority to their inventions, even when they did not file first).

<sup>89</sup> Kappos, *supra* note 17, at 00:45 to 00:50.

<sup>90</sup> *Id.*

<sup>91</sup> *Id.*

<sup>92</sup> *Id.*

<sup>93</sup> *Id.*

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invention and file a perfected patent application.<sup>94</sup> This provision applies universally to all applicants, whether sole inventors or large companies, thus creating an equal opportunity for all inventors to quickly file for a patent on their inventions, regardless of their financial resources.<sup>95</sup>

It follows, that one change that will likely be seen as a result of this new patent law may be a substantial increase in the use of provisional applications, filed with the USPTO.<sup>96</sup> A provisional application is an anticipatory application an inventor may file with the USPTO, essentially to serve as a place marker, before the inventor files their patent application with the Office.<sup>97</sup> Once a provisional application is filed, the inventor then has one year to perfect their invention, and file their patent application, or non-provisional patent application.<sup>98</sup> As the provisional application does not need to even include one claim, but merely a brief description of the invention,<sup>99</sup> it could prove to be a very effective way for inventors to gain priority, by filing a provisional application first, before filing a non-provisional application, under the new patent act.

In fact, Director Kappos believes that an individual inventor will actually have an advantage over a bigger company, which may well have more stringent and numerous review processes to go through in assessing their technology, because an individual inventor can simply file a provisional application when they have an idea they want to patent.<sup>100</sup> Thus, a small start-up company, or individual inventors from a university will likely have an equal, if not better, opportunity to protect their ideas through provisional filing, under the new patent laws.<sup>101</sup> As universities and small entities are now entitled to a big reduction in fees under the new patent laws, this further

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<sup>94</sup> *Id.*

<sup>95</sup> *Id.*

<sup>96</sup> David Jacobs, *Changing to First-To-File*, SMITH & HOPEN: U.S. REGISTERED PATENT ATTORNEYS (July 9, 2012), [http://www.smithhopen.com/news\\_detail/560/Changing\\_to\\_First-To-File](http://www.smithhopen.com/news_detail/560/Changing_to_First-To-File).

<sup>97</sup> *Id.*

<sup>98</sup> *Id.*

<sup>99</sup> See 2100 USPTO. MPEP 89 (8th ed. Rev. 9, Aug. 2012), available at <http://www.uspto.gov/web/offices/pac/mpep/> (describing the difference between a provisional patent and a non-provisional patent).

<sup>100</sup> Kappos, *supra* note 17, at 00:44 to 00:59.

<sup>101</sup> *Id.* at 00:42 to 00:50.

aids start-ups in being able to quickly file a patent application.<sup>102</sup>

b. The Bayh-Dole Act

When discussing how the new patent laws may affect technology transfer at universities, it is essential to include a discussion about the Bayh-Dole Act, as this is the governing law behind all technology transfer at universities and small businesses.<sup>103</sup> The main idea of what the Bayh-Dole Act governs can be summed up as follows:

The Bayh-Dole Act . . . governs the disposition of patent and other intellectual property rights for Government-funded inventions—patentable discoveries conceived or first reduced to practice during the course of Government-funded . . . research carried out at universities . . . and allows the institution conducting the research to keep those rights and license them to a third-party, including private companies that may be spun-off from university.<sup>104</sup>

The Bayh-Dole Act was passed in 1980, in response to a desperate need in the United States for a uniform patent policy to regulate the transfer of technology that was created through federal funds.<sup>105</sup> Before the enactment of Bayh-Dole, any federally funded inventions were reserved for exclusive use by the Federal government, and inventors were not able to license-out their inventions to other private companies.<sup>106</sup> Prior to the organization of technology transfer in the United States, “fewer than 250 patents were issued to universities per year.”<sup>107</sup> Similarly, in 1978, just before the passage of the

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<sup>102</sup> *Id.* at 01:10 to 01:20.

<sup>103</sup> Bayh-Dole Act, Pub. L. No. 96-517, § 6, 94 Stat. 3015 (1980) (codified as amended at 35 U.S.C. §§ 200–211).

<sup>104</sup> *The Bayh-Doyle Act, A Review of Patent Issues in Federally Funded Research: Hearing on P.L. 96-517 Before the Subcomm. on Patents, Copyrights and Trademarks*, 103d Cong. 4–5 (1994) (statement of Christopher J. Doherty, Washington Director, New England Biomedical Research Coalition), available at [http://archive.org/stream/bayhdoleactrevie00unit/bayhdoleactrevie00unit\\_djvu.txt](http://archive.org/stream/bayhdoleactrevie00unit/bayhdoleactrevie00unit_djvu.txt).

<sup>105</sup> See *What is Bayh-Dohl, and Why is it Important to Technology Transfer?*, COLO. ST. U. RES. FOUND. (Oct. 1999), [http://www.csurf.org/enews/bayhdole\\_403.html](http://www.csurf.org/enews/bayhdole_403.html).

<sup>106</sup> Wei-Lin Wang, *A Critical Study on the Cooperative Research and Development Agreements of U.S. Federal Laboratories: Technology Commercialization and the Public Interest*, 9 NANOTECHNOLOGY L. & BUS. 50, 52 (2012).

<sup>107</sup> See *What is Bayh-Dohl, and Why is it Important to Technology Transfer?*,

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Bayh-Dole Act, universities were receiving more than \$30 billion dollars for research, resulting in 28,000 patents issued to these universities as a result of this funded research.<sup>108</sup> However, only about 4% of these inventions were being licensed-out to private companies.<sup>109</sup>

After the passage of the Bayh-Dole Act, technology transfer was dramatically improved. Instead of the government retaining ownership to federally funded inventions at universities, the academic institution was able maintain ownership, and license or transfer the rights to the patent in accord with what was best for that university.<sup>110</sup> Among the major provisions of the Bayh-Dole Act are:

- Non-profits, including universities, and small businesses may elect to retain title to innovations developed under federally-funded research programs
- Universities are encouraged to collaborate with commercial concerns to promote the utilization of inventions arising from federal funding
- Universities are expected to file patents on inventions they elect to own
- Universities are expected to give licensing preference to small businesses
- The government retains a non-exclusive license to practice the patent throughout the world
- The government retains march-in rights.<sup>111</sup>

With the implementation of the Bayh-Dole Act, came a remarkable increase in the number of technology transfer programs throughout the country.<sup>112</sup> Consequently, with the increase in organized technology transfer centers, a need for clear Intellectual Property policies at universities to regulate their research and to protect their inventors' intellectual property rights became necessary.<sup>113</sup>

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*supra* note 105.

<sup>108</sup> Wang, *supra* note 106, at 52.

<sup>109</sup> *Id.*

<sup>110</sup> *Id.* at 52–53.

<sup>111</sup> *Bayh-Dole Act*, ASS'N U. TECH. MANAGERS, [http://www.autm.net/Bayh\\_Dole\\_Act1.htm](http://www.autm.net/Bayh_Dole_Act1.htm) (last visited March 22, 2013).

<sup>112</sup> Howard Bremer, Lecture at Rensselaer Polytechnic Inst.: The Bayh-Dole Act: Impact on University Research and Intellectual Property Ownership Rights (Dec. 2, 2003), *available at* [http://www.rpotechnology.com/files/bayh\\_dole.pdf](http://www.rpotechnology.com/files/bayh_dole.pdf).

<sup>113</sup> WORLD INTELLECTUAL PROP. ORG., WIPO Pub. No. 848(E), *Foreword to GUIDELINES ON DEVELOPING INTELLECTUAL PROPERTY POLICY*, at i, *available at*

c. University Intellectual Property Policies and the New Patent Reform

With the implementation of the new patent laws, there are sure to be changes ahead for how technology transfer will be conducted at universities. As the Bayh-Dole Act has been the controlling regulation of how universities implement their intellectual property policies,<sup>114</sup> it may be necessary for many universities to rewrite their policies to better conform to the new laws under the AIA.

In general, an intellectual property policy should aim to achieve the following:

- creation of an environment that encourages and expedites the dissemination of discoveries, creations and new knowledge generated by researchers for the greatest public benefit;
- protection of the traditional rights of scholars to control the products of their scholarly work;
- ensuring that the commercial results, financial or other, are distributed in a fair and equitable manner that recognizes the contributions of the inventors and the institution as well those of as any other stakeholders;
- ensuring that both intellectual property and other products of research are made available to the public through an efficient and timely process of technology transfer;
- promotion, preservation, encouragement of and assistance to scientific investigation and research;
- establishment of standards for determining the rights and obligations of a university or R&D institution, the creators of intellectual property and their sponsors, with respect to inventions, discoveries and works created at the institution;
- encouragement of, assistance to and the provision of mutually beneficial rewards for a university or R&D institution and its members who transfer intellectual
- property to the public through commercialization and licensing;
- ensuring compliance with applicable laws and regulations and enabling a university or R&D institution to secure sponsored research funding at all levels of research;

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[http://www.wipo.int/freepublications/en/intproperty/848/wipo\\_pub\\_848.pdf](http://www.wipo.int/freepublications/en/intproperty/848/wipo_pub_848.pdf).

<sup>114</sup> *The Bayh-Dole Act: A Guide to the Law and Implementing Regulations*, U. CAL. TECH. TRANSFER, <http://www.ucop.edu/ott/faculty/bayh.html> (last visited March 22, 2013).

- ensuring that institutions are aware of the different IP systems in place in the countries where the acquisition of IP rights is sought[.]<sup>115</sup>

Thus, the main goals of an intellectual property policy at a university are to make sure that the inventors' research and ideas are protected under the patent system, and to help inventors license-out their ideas to other companies, or to aid in inventors creating their own start-up companies.<sup>116</sup> For example, at universities where research is especially prominent, and there are strong technology transfer centers established, there is a provision in the intellectual property policy requiring inventors to disclose their inventions to the technology transfer center at the university.<sup>117</sup> This disclosure policy aids the technology transfer center in assessing whether the inventor has a patentable technology, and if so, how to protect it under the patent laws, for example, by not disclosing the invention in a printed publication before filing a provisional application with the USPTO.<sup>118</sup>

However, with the enactment of the AIA, and the impending implementation of the 'first-to-file' provision in March 2013, universities may need to reconsider how they regulate technology. As being the first to file a patent application with the USPTO will be essential to obtaining rights in an invention,<sup>119</sup> universities may need to increase the amount of information in their required disclosures, as well as the frequency with which inventors report to the university technology transfer center. By requiring inventors to report to the technology transfer center anything they have worked on over a specified period of time, the university can keep better track of which technologies may need to more immediately be filed with the USPTO. As filing a patent application first is

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<sup>115</sup> WORLD INTELLECTUAL PROP. ORG., *supra* note 113, at 4.

<sup>116</sup> *Id.* at i.

<sup>117</sup> See, e.g., RENSSELAER POLYTECHNIC INST., *The Rensselaer Intellectual Property Policy*, pt. 3.1 at 5 (2007), available at [http://www.rpotechnology.com/files/ip\\_policy.pdf](http://www.rpotechnology.com/files/ip_policy.pdf); MASS. INST. OF TECH., *MIT Policies and Procedures: Ownership of Intellectual Property*, available at <http://web.mit.edu/policies/13/13.1.html> (last visited March 22, 2013); STANFORD RESEARCH ADMIN., *Intellectual Property*, available at <http://dor.stanford.edu/Resources/ip.html> (last visited March 22, 2012).

<sup>118</sup> WORLD INTELLECTUAL PROP. ORG., *supra* note 113, at 4; Leahy-Smith America Invents Act § 3(b).

<sup>119</sup> Leahy-Smith America Invents Act, § 3(b), Pub. L. No. 112-29, 125 Stat. 284 (2011) (codified at 35 U.S.C. §§ 1-375).

essential under the new laws, this proposed increase in disclosure time may assist the office in making sure all technologies are filed with the USPTO, as opposed to the current policies of most universities, which essentially allow inventors to decide at what point their technologies are advanced enough, that they should be disclosed to the university.<sup>120</sup>

Further, as previously mentioned, there will likely be an increase in the use of provisional applications at universities, as these applications are easy and inexpensive to file, and require a minimum disclosure of the claimed invention.<sup>121</sup> Universities who use provisional applications already, may decide to file a provisional application on every invention that is disclosed to the university, as a precautionary measure, in the event that, within the one-year period to perfect the invention, the inventors do refine the technology enough, so that it becomes patentable subject matter. This would require minimum effort and expense on the part of the university, and would still guarantee that each creator's inventions are protected under the new laws, by gaining the filing priority through a provisional application.<sup>122</sup>

#### IV. CONCLUSION

The recent enactment of the new Patent Laws has been long awaited for many in this country. It will still be some time before we are able to see how these laws will really affect the patent process in our country, and how that will ultimately lead to changes in technology transfer, especially at universities. Further, it will be interesting to see how the regulation of technology transfer, specifically under the Bayh-

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<sup>120</sup> See RENSSELAER POLYTECHNIC INST., *supra* note 117, at 5 (showing Rensselaer Polytechnic Institute's policy of first disclosing the technology the university's Office of Technology Commercialization, then allowing the school to decide if and when the invention is ripe for commercialization and patenting); MASS. INST. OF TECH., *supra* note 117 (requiring inventors to report "inventions to [] industrial sponsors who provide financial support," but not stipulating at what point a patentable advancement becomes an invention); STANFORD RESEARCH ADMIN., *supra* note 117.

<sup>121</sup> See *supra* Part III.D.2.a.

<sup>122</sup> See 35 U.S.C.A. § 154(d) (West, Westlaw through P.L. 112-209 approved 12/18/12) (allowing creators to collect royalties on any inventions that they had made public and were subsequently infringed upon before the creator's patent was granted).

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Dole Act, might need to respond in order to better conform to these fairly significant changes to the regulations of how patents are now obtained in the United States.