4. Evaluating the March-in Provision

a) Analysis

It is fairly certain that a correctly drafted and enforced provision regarding march-in would have a positive effect on the public without severely negatively affecting technology transfer.[161] Increasing access to technological products will increase the public good. However, the current march-in provision as drafted and enforced is entirely ineffective. The fact that the provision has never been used is *per se* evidence of its failure in the marketplace.

The arguments that march-in rights amount to a "scare tactic" and incentivize universities and other contractors to license their technology are unconvincing. Instead, I agree with the contention that the market forces are the true incentives behind technology transfer.[162]

Currently, the march-in right can only be used as a true "last resort." The government contractor must exhaust all court appeals before march-in can be granted.[163] This requirement will effectively continue to limit the number of march-in petitions that an entity will serve the government, and also will be crippling to the government if it ever wants to exercise its right.

b) Recommendations for Change

For the march-in right to become effective, it needs to be easy for the government to utilize, and it needs to embrace instead of conflict with the "economic theory" arguments that McCabe presented.[164]

The march-in procedure is covered in 37 C.F.R. § 401.6.[165] The agency can initiate a proceeding "whenever it receives information that it believes might warrant the exercise of march-in rights."[166] This shows that the agency has full power to initiate march-in, even without a petition from another party. Hence, the law governing exercise of march-in is not constricting in itself; the interpretations and fears of the government need to be relaxed to ensure an effective procedure.

161 *See* Eberle, *supra* note 144, at 179.
162 *See generally* McCabe, *supra* note 37, at 661.
163 *See* Rai and Eisenberg, *supra* note 73, at 311.
164 *See* McCabe, *supra* note 37, at 661-662; *See* Chapter IV-A-3-b, *infra*.
165 *See* 37 C.F.R. § 401.6 (2006).
166 John H. Raubitschek and Norman J. Latker, *Reasonable Pricing – A New Twist for March-In Rights Under the Bayh-Dole Act*, 22 Santa Clara Computer & High Tech L.J. 149, 156 (2005).

As a preliminary matter, investors must see the possibility of march-in as something that would not limit the value in a given investment. To achieve this, one must more explicitly state conditions that will bring about march-in. Currently, "there is very little legislative history on march-in rights and nothing relating to when they are to be used."[167] The statute explains four conditions for march-in, but the provisions fail to adequately describe circumstances that justify the march-in.[168] By more explicitly defining the issues that could result in march-in, the ensuring transparency will allow investors to more easily determine the potential of their investment being undermined. This, in turn, will allay the fears of the government agency wishing execute a march-in.

Raubitschek and Latker note that a university currently only has to take "effective steps" to achieve commercialization.[169] Arno and Davis note that the agencies continually fail to acknowledge that failure to offer reasonable prices are grounds for a march-in.[170] While this requirement is not expressly written in the BDA, it reconciles with many of its the policy goals. By amending or redefining the march-in provision to be enforceable in the event of unreasonable pricing offered by a university, the march-in provision will become much more easily usable, benefit the public, and not scare investors since the standard for reasonable pricing shall be explicit and prices charged by contractors will be transparent.

Rai and Eisenberg further note that the contractor should not have to "exhaust all court appeals" before march-in can be authorized.[171] This would be a relatively simple solution to allow for march-in to become efficient and effective instead of burdensome and time consuming.

Though there are numerous criticisms of a strong march-in, it is important to note that the above modifications will not harm technology transfer. Eberle notes that forced licensing may generate uncertainty, but companies will not "turn their backs" on university technology.[172] Furthermore, Halperin notes that without having march-in rights consistently enforced, government contractors "will understand that they can obtain on the cheap tremendous benefits from taxpayer-funded research and then, without risk of sanction, turn around and charge the same taxpayers highly-inflated monopoly prices."[173] By more clearly defining the grounds for march-in and adding "reasonable prices" to the statute, government agencies will

167 *Id.* at 162**.**
168 *See* 25 U.S.C. § 203(a)(1-2) (2009).
169 The university does not have to achieve practical application. Raubitschek, *supra* note 166, at 160-61.
170 *See* Arno and Davis, *supra* note , at 666. This view is criticized by Raubitschek. Raubitschek, *supra* note 166, at 160 (noting that there is no explicit reasonable pricing requirement in the Act).
171 Rai and Eisenberg*, supra* note 73, at 311.
172 Eberle, *supra* note 144 at 178.
173 Halperin, *supra* note 112, at 17.

have less fear in utilizing their rights, and the transparency of the provision will ensure that technology transfer is not chilled.

B. Is Bayh-Dole's Shift in Presumption of Ownership Effective? A Review of Empirical Data

This section undertakes to determine whether or not the policies advocated by Bayh-Dole under § 200 have been accomplished pursuant to the general provisions disposing rights to a contractor under § 202. The effect of the ability for a contractor to retain ownership, and by extension, the Act as a whole, will be analyzed based upon three criteria:

1) Has Bayh-Dole led to an increase in patenting, and if so, are these patents "important," and is the increase beneficial to the public?
2) Has Bayh-Dole led to an increase in commercialization of inventions, and if so, has increased commercialism benefitted the marketplace?
3) Has Bayh-Dole advanced or retarded scientific progress, and what is the effect on the U.S. economy?

1. Bayh-Dole's Effect on Patenting

Some general conclusions with regards to the BDA's effect on patenting can be made using evidence of the number of patents in a university portfolio before and after Bayh-Dole. At first glance, the uptick in number of patents granted to U.S. research universities seems to be directly related to the time period of the Bayh-Dole Act's enactment (see Appendix A – Figure 1).[174] As seen from the figure, the number of patents stayed fairly steady and minimal until 1970, and increased slowly between 1970 and 1980. After the BDA's passage, the number of granted patents nearly doubled between 1980-1985, then increased more than twofold between 1985-1990, and again nearly doubled between 1990-1995. Proponents of the Act's success point to this easily quantifiable trend as *per se* evidence of Bayh-Dole's success.[175]

174 *See* David Roessner et al., *The Economic Impact of Licensed Commercialized Inventions Originating in University Research, 1996-200,* Final Report to the Biotechnology Industry Organization (September 3, 2009), *hereinafter* Economics Report, at page 15 (reproduced in Appendix A: Figure 1).

175 *See generally* Howard Bremer et al., *The Bayh-Dole Act and Revisionism Redux,* at page 6, Life Sciences Law & Industry, Vol. 3, No. 17 (September 11, 2009).