

GOVERNMENT OPEN ACCESS POLICIES AND THE “FEDERAL PURPOSE
LICENSE” FOR PUBLICLY FUNDED RESEARCH RESULTS IN THE UNITED
STATES AND SELECT OTHER NATIONS:
LEGAL CONTEXT AND LIMITATIONS

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INTRODUCTION

“Open access” has remained a popular buzzword for all manner of initiatives in the public and private sectors to make limited or controlled access writings and information more widely available. Under the umbrella of “open access” exist two distinct types of information availability: making private information or writings available for *review* (with or without payment); and making *reproduction or distribution* of information or writings permitted at no cost. This is sometimes cheekily illustrated as the “free speech vs. free beer” distinction.

The canonical example of the first sense of open access is the open source movement which seeks to have all computer source code released publicly so that other developers can review it. That code does not have to be made available for use, reproduction, or distribution free of charge or restrictions. But the public must be able to at least inspect the source code. The impetus was to open up what was rapidly becoming a closed private system of code development that could not be observed, verified, or tested.

The second sense of open access is that information and writings of public import should be made available at low to no cost. The impetus behind this was the perceived increases in subscription costs and digital paywalls for research articles and databases—particularly those for which the underlying research was at least partly funded by public sources. As such, this sense of open access focuses on the financial costs of accessing information and writings.

This Report focuses on initiatives in the second, cost-based sense of open access. It centers around two major policy directives of the U.S. government issued in 2013 and 2022. However, it puts these directives into their proper context within the long history of government funded research policy in the United States. Doing so reveals ways in which the directives—and especially the most recent one—have pushed beyond longstanding law and policy in arguably unauthorized ways. The Report also sets forth the actual manner in which these directives can—and cannot—work within existing federal and state laws regarding authorship, work-made-for-hire, ownership, and transfer of rights for written works. Finally, it provides an overview of similar open access initiatives in select countries around the world.

The Report includes eight major findings:

1. The purported “federal purpose license” that the recent federal directives and their supporters base their open access mandate on might not reach through to university researchers who are generally not parties to federal funding agreements
2. The purported “federal purpose license” does not reach through to private publishers working with federally funded researchers

3. The purported “federal purpose license” does not cover general distribution to the public
4. A mandate that federally funded contractors provide no-cost unlimited digital access to version-of-record research articles with no embargo period immediately upon publication is an uncompensated “taking” actionable under federal claims law
5. No-cost unlimited digital access to version-of-record research articles can only arise under a federal procurement contract and not from a federal grant or cooperative agreement
6. The recent directives go against 200 years of bipartisan federal IP policy and practice that intentionally avoided undermining existing industries in how agencies use government rights and licenses to federally funded research
7. The 2022 directive in particular is at odds with the current federal administration’s clearly stated policies; agencies and contractors may face legal and policy risk
8. None of four major R&D nations (U.K., Germany, India, Japan) require no-cost unlimited digital access to version-of-record research articles

The Report proceeds by first reviewing the origins of IP rights allocation under U.S. federal government extramural research funding agreements in Part I. It then turns to the current framework and rules, mainly authorized under the Bayh-Dole Act of 1980, governing federal procurement including extramural research funding that distinguish among grants, contracts, cooperative agreements, and “Other Transactions Authorization” in Part II. This Part also presents the rules and conditions by which a “government purpose license” is established under the standard funding agreement clauses set out Federal Acquisition Regulation (FAR). Part III then analyzes the 2013 and 2022 policy directives that seek to adapt this longstanding “government purpose license” into a much broader and problematic “federal purpose license” for copyrighted works that would go against the fundamental restriction on undermining private enterprise through federal rights and licenses. This Part also puts the directives into the context of more than a century of laws and policies of the federal procurement and extramural research system. Finally, Part IV gives a summary of open access policies for government funded research in the United Kingdom, Germany, India, and Japan, as examples of major R&D countries around the world.

I. ORIGINS AND OVERALL FRAMEWORK OF IP RIGHTS ALLOCATION UNDER U.S. FEDERAL GOVERNMENT EXTRAMURAL RESEARCH FUNDING AGREEMENTS

A. Overview

The federal government is usually thought of as the issuer of intellectual property rights (IP) through patents, copyrights, and trademarks. But it also develops, funds, or uses IP both internal to the government and through external relationships with nonprofit institutions and industry. For our purposes here, we will largely disregard trademarks. Copyrights and patents have individual historical-legal developments that are central to our concerns here with the federal government's increasing push to use a "federal purpose license" to copyrighted works in its research relationships with external organizations. It is true that the federal government does not obtain or assert copyright on its own government produced works by statute.¹ But otherwise, it has generally left copyrights with external organizations that develop the underlying works. For patents, the government has an extensive history of case law, statutes, regulations, and practice that has established a fairly clear set of rules around how rights in inventions are allocated between it and external organizations it supports to engage in research of interest to the government. This history is more fully developed than that for copyrights and so is highly instructive as to how copyright allocation policy will play out in the courts.

The federal government engages in research and development (R&D) directly through its own employees (intramural) and by funding or otherwise supporting external research entities (extramural). Because most of the government's interest in funding extramural research has been to develop practical inventions it could use itself, or that would be commercialized for the public good, IP rights allocation policy has been nearly exclusively focused on patent and trade secret rights for such inventions. Copyrights on research papers—even though the canonical output for scientists, especially in basic research, since the Scientific Revolution—were generally left to the individual researchers and/or their organizations. This makes sense because, under well-established copyright law interpretation, a copyright on a scientific or technical work in no way hinders the right and power of the public (or the government) to use any of the ideas and inventions described therein.²

Accordingly, this Report focuses first on the development of the modern set of rules and practices around allocation of rights in "subject inventions": those inventions that arise under federal funding in extramural R&D. The development

¹ 17 U.S.C. § 105.

² *Baker v. Selden*, 101 U.S. 99 (1880).

of these allocation rules followed a moderately convoluted pathway in which the courts, legislators, and policymakers needed to identify and develop separate legal concepts including:³

- “Crown Rights” in which the government as issuer of a right can also then use the right itself;
- rights to employee inventions; eminent domain and takings in the context of IP;
- rights to IP developed by external organizations under contract with the government; and
- the limit of privity when the government customarily contracts with *a research organization* and not *the individual researchers*.

The last must then be analyzed further under not only the statutory rules governing work made for hire (WMFH) in the copyright context, but also the long-established practice of academic researchers retaining their copyright.

B. Early Developments

The earliest U.S. patent laws—1790,⁴ 1793,⁵ and 1836⁶—did not make any provision regarding government use of privately owned patents. Further, no cases seem to have arisen where a patentee sued the federal government for unauthorized use of his/her patents. To the contrary, early 19th century private bills indicate that Congress believed it had to negotiate and purchase patent rights of private parties *even where the owner had developed the invention in the employ of the government and including inventions for military use*.⁷ Thus, there was no sense of either Crown Rights or eminent domain for IP rights and the government had to proceed as if it were any other private party.

³ For more detail on the topics in this Part, see Sean M. O’Connor, *The Real Issue Behind Stanford v. Roche: University Patent Assignment Policies and the Flawed Legacy of the 1947 Biddle Report*, 19 MICHIGAN TELECOMM. & TECH. L. REV. 379 (2013); *Taking, Tort, or Crown Right? The Confused Early History of Government Patent Policy*, 12 J. MARSHALL REV. INTELL. PROP. L. 145, 146–53 (2012).

⁴ Patent Act of 1790, ch. 7, § 1, 1 Stat. 109, 109.

⁵ Patent Act of 1793, ch. 11, § 1, 1 Stat. 318, 318–21.

⁶ Patent Act of 1836, ch. 357, 5 Stat. 117, 117–25.

⁷ In an 1812 act, Congress authorized funds “to purchase of Winslow Lewis, his patent right to the new and improved method of lighting Lighthouses, and for other purposes.” Act of March 2, 1812, ch. 34, 2 Stat. 691, 691. In 1836, Congress authorized the purchase of two patents, and improvements thereon, from Captain William H. Bell for \$20,000: the first for “a machine for elevating heavy cannon,” and the second for “a traverse board for pointing cannon.” Act of July 4, 1836, ch. 360, 5 Stat. 126, 126. On August 8, 1846, Congress enacted legislation to purchase from the widow of a deceased Navy master commandant “the unlimited power to use a machine called a ‘manger-stopper,’ in all ships of war or other vessels belonging to the United States” While the record does not explicitly show that both the latter two officers developed their inventions while in the employ of the military, later cases affirm an approach in which the government did not consider itself to own its employees inventions just because they were employees.

In 1855, Congress passed the first act creating the Court of Claims (the predecessor to the Court of Federal Claims) to “hear and determine all claims founded upon any law of Congress, or upon any regulation of an executive department, or upon any contract, express or implied, with the government of the United States”⁸ In 1863, the Court of Claims’ authority was extended to include “all set-offs, counter-claims, claims for damages, whether liquidated or unliquidated, or other demands whatsoever, on the part of the government, against any person making claim against the government in said court.”⁹

Also in 1863, what appears to be the first case brought against the United States for patent infringement was brought before the Court of Claims. In *Pitcher v. United States* (“*Pitcher’s Case*”), the warden of the U.S. penitentiary for the District of Columbia had inmates using a patented broom making machine without authorization of the patent owner.¹⁰ Pitcher could not bring his claim as regular patents infringement—a tort—because of federal sovereign immunity. So he used an interesting argument enabled by the nature of the Court of Claims: because the United States is a body politic that is incapable of committing tortious acts, it “must” enter into an implied contract with patent holders when it uses their patents without authorization.¹¹ Consequently, the patent owner should be allowed to waive the tort and bring an action based on *assumpsit* and the implied contract. This, of course, then allows the patent owner to bring the claim within the jurisdiction of the Court of Claims. For good measure, Pitcher also added a takings claim and argued that this too gave rise to an implied contract to compensate him for the taking.

The Court of Claims denied that it had jurisdiction to hear the case. First, it rejected the takings claim because of both the nature of the thing alleged to have been taken and the manner in which it occurred. As to the latter, “[w]e cannot believe that the framers of this clause intended that every subordinate officer or petty agent of the United States might undertake to decide for himself when the exigency has occurred, or the necessity exists, for the seizure and appropriation of

⁸ An Act to establish a Court for the Investigation of Claims against the United States, ch. 122, 10 Stat. 612 (1855).

⁹ An Act to amend “An Act to establish a Court for the Investigation of Claims against the United States”, ch. 92, § 3, 12 Stat. 765 (1863).

¹⁰ *Pitcher v. United States*, 1 Ct. Cl. 7 (1863).

¹¹ *Pitcher*, 1 Ct. Cl. at 8–9. While this appears to have been a novel argument in this case, it was formally stated as a point of law, albeit as between a citizen of one country and agents of a government of another, by the Court of Claims two years later in *Straughan v. United States*, 1 Ct. Cl. 324 (1865). The Court plainly stated that “[t]here is no such thing as a tort by a government against an individual.” *Id.* at 328. It went on to state that “[a]s between a citizen and his own government, acts which between private persons would be torts are to be deemed implied contracts founded on the right of eminent domain, or else acts unavoidable, and necessary for the public welfare, but never acts founded upon a wrongful or malicious intent.” *Id.* at 328–29.

the property of the citizen.”¹² This argument that there needs to be a suitably high or formal level of authorization for a taking to be held to have occurred reappears in later cases of unauthorized patent use by the government throughout the 1800s. Where such authorization does not exist, then the action by the government agent or officer “is a simple trespass, for which he is amenable to the law,”¹³ The court also asserted that there just “was no seizure or taking of any tangible property belonging to the claimant; at most it was a mistaken and unauthorized *use* of a machine which he had an exclusive right to make, use, and vend.”¹⁴ “It was the disturbance or infringement of his right, instead of the caption of his property.”¹⁵

In 1870, the Patent Act received another major overhaul and two Supreme Court decisions formed the basis of the property right in patents and that the U.S. would reject the British Crown Rights approach to government use. The Patent Act of 1870 added injunctive relief to the existing monetary damages and dropped the confusing reference to “liberties” in earlier Acts that seemed to give a positive right to practice the invention.¹⁶ Meanwhile, in *United States v. Burns*, the Supreme Court affirmed a Court of Claims ruling that the government must honor its patent license obligations by noting that:

If an officer in the military service, *not specially employed to make experiments with a view to suggest improvements*, devises a new and valuable improvement in arms, tents, or any other kind of war material, he is entitled to the benefit of it, and to letters-patent for the improvement from the United States, equally with any other citizen not engaged in such service; and the government cannot, after the patent is issued, make use of the improvement any more than a private individual, without license of the inventor or making compensation to him.¹⁷

This statement makes it clear that employees of the federal government indeed were able to retain enforceable patents against the government even for inventions developed working for the government. At the same time, it left open the government’s right to contract with employees to invent and then assign those

¹² Pitcher, 1 Ct. Cl. at 8–9.

¹³ *Id.* at 9.

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ Patent Act of 1870, ch. 230, 16 Stat. 198, 198–217. *See also* Bloomer v. McQuewan, 55 U.S. 539, 549 (1852) (suggesting that, even under the Patent Act of 1836, the patentee did not have a liberty to use the patent, but rather only to exclude others). The Supreme Court considered the nature of the patent grant under the 1836 Act, as amended, and gave a description of that grant that is very much in line with Judge Giles Rich’s famous analysis of the contemporary patent right: “The franchise which the patent grants, consists altogether in the right to exclude every one from making, using, or vending the thing patented, without the permission of the patentee. That is all that he obtains by the patent.” *Id.*

¹⁷ *United States v. Burns*, 79 U.S. (12 Wall.) 246, 246, 252 (1870) (emphasis added).

inventions to the government, just as was the practice developing in the private sector.¹⁸ In *Seymour v. Osborne*, the Supreme Court established the patent grant as a property right, notwithstanding that the Patent Act of 1870 did not expressly support this.¹⁹

Throughout the 1870s and 1880s, the courts consolidated the caselaw that rejected Crown Rights in the U.S. For example, the opinion in *Brady v. Atlantic Works* rejected in dicta any right for the government to use patented inventions without authorization or compensation except in the direst of circumstances.²⁰ The case is notable here because it centered on alleged infringement by a contractor of the government. The court did not need to reach the question of how contractor infringement might alter a Crown Right (really a government use question) because it rejected Crown Rights altogether in the U.S. The forcefulness and logic of Justice Clifford's language, sitting by designation in the District of Massachusetts, is instructive.²¹

But courts in this time further muddled the question of whether agents of the government could authorize infringement, eminent domain, or takings on behalf of the government itself, and if they could, whether such actions opened the government to suit in its own courts. In *Cammeyer v. Newton*, the Supreme Court confronted the question of whether government employees could be deemed to have infringed patent rights on behalf of the government, but was able to decide the case on grounds that there was no infringement in the first place.²² Yet in dicta, Justice Clifford asserted that unauthorized government use of a patented invention would constitute a taking that must be compensated, again with a *potential* carve-out for "extreme necessity in time of war and of immediate and

¹⁸ *Id.* Oddly, the related doctrine of "shop rights" (nonexclusive licenses implied to have been granted to employers where employees use their facilities to invent) was not mentioned as an alternate possible justification for a U.S. government right to practice the patent without compensation, even though one of the seminal cases in that doctrine had been upheld by the Supreme Court's 1843 decision in *McClurg v. Kingsland*, 42 U.S. 202 (1843).

¹⁹ "Inventions secured by letters patent are property in the holder of the patent, and as such are as much entitled to protection as any other property, consisting of a franchise, during the term for which the franchise or the exclusive right is granted." *Seymour v. Osborne*, 78 U.S. (11 Wall.) 516, 516, 533 (1870).

²⁰ *Brady v. Atl. Works*, 3 F. Cas. 1190, 1192 (C.C.D. Ma. 1876) (No. 1794) *rev'd on other grounds*, 107 U.S. 192 (1883).

²¹ Clifford expressly rejected the applicability of continuing British case law on this matter—specifically *Feather v. Queen*, 122 Eng. Rep. 1191 (Q.B.) (1865). "Patents in that country are monopolies, granted by the sovereign, and may be granted or refused in the royal discretion." 3 F. Cas. at 1192. "Power to legislate upon the subject in *this* country is conferred upon congress by the constitution, by securing for limited periods to inventors the exclusive rights to their discoveries." *Id.* (emphasis added). For good measure, he added that even if the Constitution empowered Congress to legislate a form of Crown Right, it had not done so up through the 1870 Patent Act. *Id.*

²² *Cammeyer v. Newton*, 94 U.S. 225 (1876).

impending public danger.”²³

In *McKeever v. United States*, the federal government seemed to conflate some claim of ownership of, or at least license to, a patented cartridge box of an Army officer invented on the job and with notice and consent of superiors, with a Crown Right type claim of use right.²⁴ In its opinion the court conducted an extensive review of both the history of the British patent system up through the Statute of Monopolies and the antipathy to “obnoxious patents” in the Constitution era of the United States.²⁵ Focusing on what it deemed the intentional decision to *not* include words such as “patent” and “grant” in the IP Clause of the Constitution,²⁶ the court asserted that the affirmative use of “secure a right” in that Clause meant that the Framers rejected any sense of the Crown Prerogative nature of British patents, which relied on obsequiously chasing the “grace and favor” of the Crown to obtain a patent grant. By contrast, the IP Clause set the authority for exclusive rights in writings and discoveries (inventions) in the legislative branch so that it was not discretionary to the executive branch. This concept of a *right* to what ultimately still were named patents and copyrights in the U.S. is a core theme that runs through all the relevant caselaw, especially at the Supreme Court level. Copyrights and patents are *entitlements* in the U.S. and not privileges such that the executive branch needs to show a statutory basis for rejecting or infringing those secured rights.²⁷

²³ *Id.* at 234–35. (citations omitted). The potential carve out for “cases of extreme necessity in time of war and of immediate and impending public danger” was almost certainly a nod to *United States v. Russell*. 80 U.S. 623 (1871). In that case, the Supreme Court affirmed a Court of Claims holding that fair compensation was warranted where military officers commandeered steamships for emergency purposes on the Mississippi River during the Civil War. *Id.* at 629. The Court found that the crews of the steamships had assented, creating an implied contract which brought the matter properly into the jurisdiction of the Court of Claims, and not some kind of “appropriation” taking as would be outside that jurisdiction. *Id.* at 630. The case would be cited in later decisions finding implied licenses for government use of patented inventions, even in the absence of an express contract. *See, e.g., United States v. Berdan Firearms Mfg. Co.*, 156 U.S. 552, 569 (1895).

²⁴ *McKeever v. United States*, 14 Ct. Cl. 396 (1878). The case is reported to have been affirmed by the Supreme Court on appeal in the Supreme Court’s decision in *Russell v. United States*, 182 U.S. 516, 531 (1901) (“*McKeever v. United States*, 14 Ct. Cl. 396, [was] affirmed on appeal by this court . . .”). The government relied on both *Feather v. The Queen* and *Dixon v. The London Small Arms Co.*, Q.B.D. 384 (Eng.) (1876).

²⁵ *McKeever*, 14 Ct. Cl. at 417–20.

²⁶ U.S. CONSTITUTION, Art. 1, § 1, cl. 8.

²⁷ In the court’s own language:

Instead of placing our patent system upon the English foundation of executive favor and conferring that prerogative of the Crown upon the President, [the Framers] transferred all authority to the legislative department of the government (the department which regulates rights), by placing it among the specially enumerated powers of Congress. . . .

. . . Congress are not empowered to grant to inventors a favor, but to secure to them a right. And the term “to secure a right” by no possible implication carries with it the opposite power of destroying the right in whole or in part by appropriating it to the purposes of government without complying with that other condition of the

Anticipating later concerns of military defense contractors, the *McKeever* court also addressed the issue of patented inventions that had essentially only one purchaser, the government: “The claimant had gone to the expense of turning his invention into property; it was an article salable almost exclusively to the government; his offer imported a desire to sell to almost the only purchaser of such articles”²⁸ Under these circumstances, it was especially important, in the court’s view, for the government to pay fair compensation. In this case, there were solid facts supporting an implied license and so the court also rejected a jurisdictional challenge centered on the claim that patent infringement is a tort.

The Supreme Court weighed in through the 1881 case of *James v. Campbell*.²⁹ While it ultimately decided the patent infringement claim against the government on the basis of invalidity of the patent, it engaged in extensive dicta setting forth its views on the multiple issues of government use of privately owned patents. It first reiterated its position from earlier cases that the federal government has no more rights to practice patents duly issued to others than do regular citizens, absent authorization from and/or compensation to the patent owner.³⁰ But, it built

Constitution, the making of “just compensation.” Neither does the term “*the exclusive right*” admit of an implication that with regard to such patentable articles as the government may need the right shall not be exclusive. The transfer of the power from the executive to the legislature; the abandonment of the terms “grant” and “patent”; the substitution of the words “secure,” “right,” and “exclusive”; the absence of an express reservation which at common law attaches to favors of the Crown or is inferable from the terms “grant” and “patent,” are facts which combine to demonstrate that the framers of the Constitution designed to place the work of the inventor among legal rights, which, when properly “secured” in a manner to be provided by law, should become property in the eye of the law and be respected as such by the government as by the citizen. . . .

Pursuant to the plain intent of the Constitution, Congress have never sought to attach such a condition to the issuing of a patent; private acts have been passed remitting claims for the use of patented inventions to this court for adjudication; statutes have been enacted prohibiting or regulating the use of patented articles in the government service (12 Stat. L., 91, 104, § 3; Rev. Stat., § 1537); appropriations have been made to pay inventors the royalty justly due for their property thus taken for public use; the executive departments have freely resorted to patented articles for the purposes of the government, and have made them the subject of express contracts. The course of the legislature and the practice of the executive alike forbid the assumption that this government has ever sought to appropriate the property of the inventor, or that it has ever asserted an inherent right to do so analogous to that reserved in Great Britain by the Crown.

McKeever, 14 Ct. Cl. at 417–20.

²⁸ *Id.*

²⁹ 104 U.S. 356 (1881).

³⁰ *Id.* at 357–58.

That the government of the United States when it grants letters-patent for a new invention or discovery in the arts, confers upon the patentee an exclusive property in the patented invention which cannot be appropriated or used by the government itself, without just compensation, any more than it can appropriate or use without compensation land which has been patented to a private purchaser, we have no doubt.

upon the Court of Claims' concerns in *McKeever* over the special issues of patents with little to no use outside the government.³¹ The government must either purchase private inventions before patenting, and then use them as secrets, or pay fair compensation to effectively buy the patent where the invention is already patented.³² The Court also strengthened its comments from *Burn's Case* that there would be no equivalent in U.S. patent law to British Crown Rights, specifically referring to patents as entitlements.³³

At the same time, the *James* Court acknowledged the jurisdictional challenges to patentees whose patents were being practiced without authorization by the government.³⁴ So long as an implicit license and assumpsit argument could be established by the plaintiff patentee, that party could safely bring their case within the Court of Claims jurisdiction. But if not, then that court had no jurisdiction *and* the actions by government officials could not be said to be actions of the federal government. Completing the predicament for the patentee plaintiff, the *James* Court asserted that direct suit against the government officers or agents was improper as well.³⁵

The Constitution gives to Congress 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,' which could not be effected if the government had a reserved right to publish such writings or to use such inventions without the consent of the owner.

Id.

³¹ "Many inventions relate to subjects which can only be properly used by the government, such as explosive shells, rams, and submarine batteries to be attached to armed vessels. If it could use such inventions without compensation, the inventors could get no return at all for their discoveries and experiments." *Id.* at 358.

³² "It has been the general practice, when inventions have been made which are desirable for government use, either for the government to purchase them from the inventors, and use them as secrets of the proper department; or, if a patent is granted, to pay the patentee a fair compensation for their use." *Id.*

³³ "The United States has no such prerogative as that which is claimed by the sovereigns of England, by which it can reserve to itself, either expressly or by implication, a superior dominion and use in that which it grants by letters-patent to those who entitle themselves to such grants. . . . [Patent applicant, upon satisfying the statutory criteria, is] entitled to [the patent grant] as a matter of right, and does not receive it, as was originally supposed to be the case in England, as a matter of grace and favor." *Id.* This last point is also supported by the affirmative language in both the 1836 and 1870 patent acts that patents must be issued where the invention and application meet all requisite criteria. See Patent Act of 1836, ch. 357, § 7, 5 Stat. 117, 119–20; Patent Act of 1870, ch. 230 § 24, 16 Stat. 198, 201. At the end of the decade, the Supreme Court would reiterate this position once again in *United States v. Palmer*, 128 U.S. 262, 270 (1888) ("It was . . . doubted whether the government might not be entitled to the use and benefit of every patented invention, by analogy to the English law, which reserves this right to the crown. But that notion no longer exists. It was ignored in the Case of Burns.").

³⁴ *James*, 104 U.S. at 359 ("[W]here the tort is waived, and the claim is placed upon the footing of an implied contract, we understand that the court has in several recent instances entertained the jurisdiction.").

³⁵ "The course adopted in the present case, of instituting an action against a public officer, who acts only for and in behalf of the government, is open to serious objections. We doubt very

Two other major relevant developments close out the nineteenth century for our purposes. First, the federal government began funding intramural research within the Department of Agriculture and the Department of War. Second, federal courts began applying the same state common law “shop right” rules to inventions by federal employees as they did to private industry employees.

The first was largely the product of the Morrill and Hatch Acts. The original Morrill Act of 1862 established grants of federal land to the various states for the establishment of agricultural and mechanic arts colleges and educational facilities.³⁶ This was the beginning of the “land grant” college system that then became a key player in extramural research. The Hatch Act of 1887 then allocated grants of \$15,000 to colleges—particularly the land grant universities started under the Morrill Act—to establish agricultural experiment stations.³⁷ At the same time, technical colleges began opening in the nineteenth century as industrialists, other donors, and governments became frustrated with a perceived overly academic and philosophical bent to existing universities. MIT (Massachusetts Institute of Technology) was incorporated in 1861. Virginia Tech (Virginia Polytechnic Institute of State University) was incorporated in 1872 as the Virginia Agricultural and Mechanical College, a Morrill Act land grant university.

Equally important, for our purposes, colleges and universities were all over the map as to their de facto IP policies (few had express policies). Some took out and held patents in their own name. Some eschewed patents entirely, promoting a vision of public donation of inventions. Many professors simply took out patents on inventions developed from their research in their own names.³⁸ Other professors also embraced the public goods vision of their inventions. A factor in the ambivalence about patents in academia was that many traditional colleges and universities—set up in the European model—were focused on basic science and natural philosophy such that their research results were generally scientific principles, published as articles and books, but not practical inventions. Crucially for our purposes, the longstanding, nearly universal tradition of European and American colleges and universities has been to allow professors to keep the

much whether such an action can be sustained. It is substantially a suit against the United States itself, which cannot be maintained under the guise of a suit against its officers and agents except in the manner provided by law.” *Id.*

³⁶ Act of July 2, 1862, ch. 130, sec. 1, 12 Stat. 503, codified as amended at 7 U.S.C. § 301 *et seq.*

³⁷ Act of Mar. 2, 1887, ch. 314, sec. 1, 24 Stat. 440, codified as amended at 7 U.S.C. § 361a *et seq.* (alternately referred to as the “Hatch Experiment Station Act”)

³⁸ See, e.g., U.S. Patent No. 1,647 to Samuel Morse (of New York University) in 1840; U.S. Patent No. 136,708 to William Dale (of Pennsylvania State College) in 1873; U.S. Patent No. 174,465 to Alexander G. Bell (of Boston University) in 1878; U.S. Patent No. 389,021 to Adolf Sommer (of University of California) in 1888; and U.S. Patent Nos. 638,837 thru 638,840 to Reginald Fessenden (of University of Pittsburgh) in 1899.

copyright to any scientific, technical, or medical articles or books that they write. With the rise of agricultural and technical colleges, as well as of applied sciences in traditional colleges and universities, the question of patents became more acute at the opening of the twentieth century.

The second major development of the 1890s was the increasing application of the emerging “shop rights” system of employee invention allocation to government employees.³⁹ The shop rights system has three parts. First, inventions created by employees on employer time, or using employer resources, must convey a nonexclusive, nontransferable license to the invention to the employer. This is the core “shop right” from which the system gets its name, as the license is only good for the actual facility (“shop”) in which the invention arose; it cannot be used by the employer in other locations or transferred to a third party. Second, if the employer can show that the employee was specifically “hired to invent” that kind of invention, then the employee must assign title to the invention, and any subsequent patent, to the employer. Third, if the employee was not on employer time and did not use employer resources to invent, then the invention is his free and clear. However, a written agreement between employer and employee allocating IP rights supersedes these common law default rules.

Note also that the WMFH doctrine was not formalized until the 1909 Copyright Act. But whatever courts may have been doing in this space before then, colleges and universities were not making claims to written works of professors under a proto WMFH or otherwise.

At the beginning of the twentieth century, the federal government began reconsidering how it should access IP held by private parties that it needed for government purposes. The increasing technological basis of modern warfare was leading to an increase in patents on military devices that the federal government needed to practice. At the same time, patentees were clamoring for resolution to the jurisdictional issue that left them resorting to assumpsit and implied license arguments or having no recourse for government infringement of their IP.

An unsatisfying, problematic, yet sometimes useful development in the first decade of the twentieth century was the *Ex Parte Young* doctrine allowing injunctions against government officials in their personal capacity in state court for seeking to enforce unconstitutional laws.⁴⁰ In that case, railway stockholders filed suit against the Minnesota State Attorney General complaining that a state statute establishing railway rates was unconstitutional. The district court enjoined the enforcement of the statute, and when the Attorney General violated the injunction by attempting to enforce the statute anyway, the court found him in contempt and issued an injunction against him in his individual capacity. The

³⁹ *U.S. v. Talbert*, 15 S.Ct. 4 (1894); *Solomons v. U.S.*, 11 S.Ct. 88 (1890).

⁴⁰ *Ex Parte Young*, 209 U.S. 123 (1908).

Attorney General appealed on the basis of state sovereign immunity. But ultimately, the Supreme Court held that state officials did not enjoy the protection of sovereign immunity when they attempt to enforce unconstitutional laws.

A more direct response to the government IP infringement problem was enactment of the Act of June 25, 1910 that empowered the federal government to practice privately held IP without authorization, but in turn authorized the Court of Claims to hear petitions by the IP owners for fair compensation.⁴¹ The statute, in its amended form, has become known as the “Government Use Statute” or “IP Takings Statute.” It was challenged shortly thereafter when the German corporation Krupp sued to enjoin Crozier, Chief of Ordnance of the U.S. Army, from manufacturing Krupp’s patented field guns and carriages in U.S. arsenals. The case went to the U.S. Supreme Court where Krupp’s claim to a right of injunction for the infringement was rejected by the Court based on the existence of the new Government Use Statute.⁴² The Court held that because the statute authorized the federal government to practice the patent without authorization of the patent owner, then the sole remedy available was compensation awarded through the Court of Claims as provided by the statute.

After *Crozier*, it was generally assumed that federal government contractors enjoyed the same protection under the Government Use Statute as federal employees did.⁴³ However, at the height of World War I, the U.S. Supreme Court held that this was not the case.⁴⁴ Wartime concerns resulted in quick action and Congress voted to amend the Government Use Statute through the Naval Appropriations Act of 1918 to allow federal agencies to authorize contractors to practice privately held patents on behalf of the federal government without authorization from the patent owners.⁴⁵ The U.S. Supreme Court upheld the statute nine years later and reaffirmed that the sole remedy for patent owners in matters of infringement by the federal government or its contractors was to seek compensation under the statute in the Court of Claims.⁴⁶

Further cases interpreting the amended Government Use Statute complicated the picture for federal government contractors, which came to include universities and other research organizations. In *Wood v. Atlantic Gulf & Pacific Company*,⁴⁷ the U.S. District Court for the Southern District of Alabama held that in order for

⁴¹ Act of June 25th, 1910, c. 423, 36 Stat. 851.

⁴² *Crozier v. Fried. Krupp Aktiengesellschaft*, 224 U.S. 290 (1912).

⁴³ See, e.g., Karl Fenning, *Patent Infringement By the Government*, 37 Yale L.J. 773, 776 (1928).

⁴⁴ *Cramp & Sons Ship & Engine Bldg. Co. v. Int’l Curtis Marine Turbine Co.*, 246 U.S. 28 (1918).

⁴⁵ Act of July 1, 1918, c. 114, 40 Stat. 705, codified at 35 U.S.C. § 68, later recodified at 28 U.S.C. § 1498.

⁴⁶ *Richmond Screw Anchor Co. v. United States*, 275 U.S. 331 (1928).

⁴⁷ 296 Fed. 718 (S.D. Ala. 1924).

the statute to apply, the federal government must authorize or consent to its contractor's infringement of a patent. In *Newport News Shipbuilding and Dry Dock Co. v Isherwood*,⁴⁸ the U.S. Supreme Court held that the statute did not apply because the contractor had built ships for the federal government while it still had a separate licensing agreement with the patent owner to use the patent. Accordingly, this meant that the federal government and its contractors would be bound to any licenses the contractor was a party to before or during the federal contract work.

The practice of assigning inventions made by faculty researchers to the employing university appears to have emerged around the time of World War I.⁴⁹ By the 1930s, a number of universities had adopted institutional patenting policies.⁵⁰

In the 1920s, the Executive branch began studying the nature of patents arising under federal funding.⁵¹ In 1933, the U.S. Supreme Court ruled that federal employees had no obligation to assign their patents to the federal government, absent clear evidence that they had been hired to invent just that sort of thing, and confirmed that the general principles of the common law shop rights doctrine applied equally to the federal government as to private employers.⁵²

Congress amended the Government Use Statute again in the Royalty Adjustment Act in 1942.⁵³ The amendment added language codifying the judicial requirement for clear "authorization and consent" by a federal agency for the contractor to use the specified patents or copyrights without authorization of the owner and still be covered by the statute. It also sought to clarify that contractors were not bound to existing licenses with patent owners while doing work for the federal government if the hiring agency incorporated clear authorization and consent language to use the patents in question independent of any license.⁵⁴

⁴⁸ 5 F.2d 924 (4th Cir. 1925).

⁴⁹ See, e.g., U.S. Patent No. 1,212,945 to Thomas P. Haslam in 1917 (assigned to Kansas Agricultural College); U.S. Patent No. 1,218,472 to T. Brailsford Robertson in 1917 (assigned to University of California, by agreement); U.S. Patent No. 1,392,767 to Edward C. Kendall in 1921 (assigned to University of Minnesota); and U.S. Patent No. 1,491,900 to Daniel G. Chilson in 1924 (assigned to University of Arizona).

⁵⁰ See Richard Spencer, "University Patent Policies," Northwestern University Law School manuscript, September 1, 1939.

⁵¹ See *U.S. v. Dubilier Condenser Corp.*, 289 U.S. 178, 206 (1933).

⁵² *Id.*

⁵³ 56 Stat. 1013 (1942). The text of the amendment reads:

For purpose of this Act and the Act of June 25th, 1910, as amended (40 Stat. 705; 35 U.S.C. 68), the manufacture, use, sale, or other disposition of an invention described in and covered by a United States patent or in an application for patent therefore, by a contractor, a subcontractor, or any person, firm, or corporation for the Government and with the authorization and consent of the Government, shall be construed as manufacture, use, sale, or disposition for the United States.

⁵⁴ *Hearings Before Committee on Patents, House of Representatives, on H.R. 7620*, 77th

Finally, the amendment also served to settle any confusion in the courts as to whether the Government Use Statute applied to federal *subcontractors*, as well as prime contractors, by explicitly adding them. The statute then remained unchanged until after World War II, when it was reworded and transferred out of Title 35, to Title 28, which covers the judiciary and judicial procedure.⁵⁵

As World War II ushered in a heightened era of federal funding of intramural and extramural science and technology, the federal government found itself to be funding many new patented inventions. Thus, in 1944, President Roosevelt issued an Executive Order that called for a separate register be created in the U.S. Patent Office for the recording of all federal government rights and interest in patents and patent applications.⁵⁶ Roosevelt also desired to establish a uniform government-wide patent policy for both federal employee and contractor employee inventions. A year earlier he had requested the U.S. Attorney General (AG) to undertake a comprehensive investigation of the nature and extent of federal patent policies. The report anticipated the significant boom in post-war research funded by the federal government and sought to answer a single question: “What disposition of patent rights as between the Government, its employee or contractor, and what use of patent rights owned by the Government, will best serve the public welfare and stimulate the progress of science and the useful arts?”⁵⁷

Thus, by the end of World War II, all three main areas of federal patent policy were in development. For intramural research and inventions created by federal employees on the job, the federal government was moving towards a version of the shop rights system used by private employers. For extramural research and inventions created by federal contractors, the federal government was generally allowing the contractor or the contractor’s employees to retain title. And finally, for patents held by private parties that the federal government needed to practice, the federal government could invoke the Government Use Statute even if it could not, or did not want to, obtain a license directly from the patent owner.

C. Roots of the Bayh-Dole Act

The seminal report on government patent practices was issued by Attorney General Francis Biddle in 1947 (the “Biddle Report” or the “Report”).⁵⁸ It not

Cong., 2d Sess. 17 (1942), Letter of Henry Stimson, Secretary of War addressed to the Speaker of the House.

⁵⁵ Act of June 25, 1948, ch. 646, 62 Stat. 941, 35 U.S.C. § 68 repealed by 62 Stat. 998 (1948).

⁵⁶ Exec. Order No. 9424, 3 C.F.R. 303 (1943-1948).

⁵⁷ Department of Justice, I Investigation of Government Patent Practices and Policies, Report and Recommendations of the Attorney General to the President 2 (1947).

⁵⁸ U.S. Dep’t of Justice, I Investigation of Government Patent Practices and Policies: Report

only framed the debates over government patent policy for both intramural and extramural R&D for decades to come, but it also introduced a crucial mistaken assumption that all government contractors were routinely securing patent assignments from their employees. This arose from a faulty conclusion in the Report's summary findings that glossed over complicated evidence raised in seventeen monographs provided as appendices to the Report.⁵⁹ While the detailed monographs showed that private firms and most nonprofit research organizations were securing assignments, they also indicated that only some universities were doing so. Nonetheless, the Report concluded that contractors were securing title to employee inventions and thus federal policy need focus only on the allocation of rights as between government agencies and their contractors. This recommendation subsequently became a bedrock principle upon which all government patent policy was based up through the passage of the Bayh-Dole Act of 1980.⁶⁰

The Biddle Report also outlined additional requirements that presaged the “Government Use License” and “March-in Rights” later developed in the Kennedy Patent Policy and codified in Bayh-Dole, as discussed below. Crucially for our purposes, the Report distinguished the three types of federal funding agreements still used today—procurement contracts, grants, and cooperative research agreements—and recommended that all three could be treated under the same basic policy and exceptions framework. Finally, the Report urged development of a uniform government-wide patent policy.

Despite the quick implementation of some of the AG's recommendations by the Truman Administration, none of the others were acted on throughout the 1950s. During that time, a number of federal statutes were passed that specifically allocated patents arising from federally-funded extramural research to either the federal government or the contractors.⁶¹ In the absence of a uniform government-wide patent policy, the various agencies went their separate ways with different

and Recommendations of the Attorney General to the President (1947) [hereinafter Biddle Report].

⁵⁹ For more detail on this, see Sean M. O'Connor, *The Real Issue Behind Stanford v. Roche: University Patent Assignment Policies and the Flawed Legacy of the 1947 Biddle Report*, 19 MICHIGAN TELECOMM. & TECH. L. REV. 379 (2013).

⁶⁰ Bayh-Dole Act, Pub. L. No. 96-517, § 6(209), 94 Stat. 3015 (1980).

⁶¹ Act of June 29, 1935, § 10(a), as added by title I of the Act of August 14, 1946, 60 Stat. 1085 (codified at 7 U.S.C. § 427(i)(a)); Act of April 5, 1944, § 3, 58 Stat. 191 (codified at 30 U.S.C. 323); Act of August 14, 1946, § 205, 60 Stat. 1090 (codified at 7 U.S.C. 1624(a)); National Science Foundation Act of 1950, § 12, 82 Stat. 360 (codified at 42 U.S.C. § 1871(a)); Atomic Energy Act of 1954, § 152, 68 Stat. 943 (codified at 42 U.S.C. § 2182); National Aeronautics and Space Act of 1958, § 305, (codified at 42 U.S.C. § 2457); Coal Research Development Act of 1960, § 6, 74 Stat. 337 (codified at 30 U.S.C. § 666); Helium Act Amendments of 1960, § 4, 74 Stat. 920 (codified at 50 U.S.C. § 167b); Arms Control and Disarmament Act of 1961, § 32, 75 Stat. 634 (codified at 22 U.S.C. § 2572); Foreign Assistance Act of 1961, § 219, 83 Stat. 806 (codified at 22 U.S.C. § 2179).

contractor title or license policies for patents arising from federally funded research.

It was not until the Kennedy Administration that a uniform, government-wide policy governing inventions arising from extramural research was established (the “Kennedy Patent Policy”).⁶² The Kennedy Patent Policy established nearly all the key concepts and terminology of the modern technology transfer system, albeit with many of them adopted from the recommendations of the 1947 Attorney General’s Report. In particular, the core elements of the Government License and March-In Rights were in place. The Kennedy Patent Policy also included detailed requirements for contractors who acquired exclusive patent rights. For example, the contractor would have to submit periodic written reports to the funding agency regarding progress on commercialization of the invention.

The key divergence of the Kennedy Patent Policy from the 1947 Attorney General’s Report was that the Kennedy Patent Policy sought to establish a balance between federal government and contractor ownership of patents arising from federally funded research.⁶³ Under the Kennedy Patent Policy, funding agencies should consider whether inventions arising during the course of or under federal funding agreements could productively be practiced directly by the public, or whether intervening R&D and “risk capital” was needed to turn the invention into a product that could be made available to the public. In part because of this, the Kennedy Patent Policy seemed primarily focused on private sector contractors, rather than university and nonprofit research organization contractors. This also seems to be borne out by a requirement of the Kennedy Patent Policy that contractors who retained either title or exclusive rights must bring those inventions to “the point of practical application,” defined as “to manufacture in the case of a composition or product, to practice in the case of a process, or to operate in the case of a machine and under such conditions as to establish that the invention is being worked and that its benefits are reasonably accessible to the public.”

The Kennedy Patent Policy was never implemented in government-wide regulations. However, a number of agencies promulgated regulations that comported with the Kennedy Patent Policy. It also opened the door for the Institutional Patent Agreement (IPA) programs of the National Institutes of Health (NIH) in the Department of Health, Education, and Welfare (HEW) and the National Science Foundation (NSF). It did so by allowing for more contractor ownership of federally funded inventions than the 1947 Attorney General’s

⁶² Memorandum for the Heads of Executive Departments and Agencies, 28 Fed. Reg. 10,943, October 12, 1963, 3 C.F.R. 861 (1959-1963). The Memorandum is reproduced in Appendix A.

⁶³ “. . . the public interest might also be served by according exclusive commercial rights to the contractor in situations where the contractor has an established nongovernmental commercial position . . .” *Id.*

Report recommended.

The Kennedy Patent Policy also commissioned a study by Harbridge House which was ultimately issued in 1968 (the “Harbridge House Report”).⁶⁴ While the overall findings were inconclusive, the Harbridge House Report offered some interesting specific findings that helped shape the federal patent policy debates of the 1970s. First, it suggested that the NIH Medicinal Chemistry Program, initiated in 1962 prior to the Kennedy Patent Policy and which largely allocated title of resultant patents to the federal government, was hindering the commercialization of pharmaceutical compounds apparently by discouraging R&D firms from working with the program because of the allocation of title to NIH. The program rules were changed after the release of the Harbridge House Report, although there was no necessary linkage between the two events. Second, the Harbridge House Report recommended that different rules for ownership of federally funded inventions should apply to universities and non-profits, on the one hand, and large private sector companies on the other. The Harbridge House Report pointed out the roots of the general confusion about where universities and nonprofits fit under the Kennedy Patent Policy as originating in the language that required an “established commercial position” for title to lie in the contractor.⁶⁵ The Harbridge House Report found that while large companies were likely to take on federal contract research work even if patents arising under the work were owned by the federal government, universities and non-profits were not.⁶⁶ This was seen as a result of the inability of universities and non-profits to commercialize such research results directly.

In 1971, the Nixon Administration issued a modified and restated version of the Kennedy Patent Policy, which appeared primarily designed to further increase the allocation of title to contractors and, where the federal government retained title, the granting of exclusive licenses to contractors (the “Nixon Patent Policy”).⁶⁷ Due to the continued existence of the specific patent allocation statutes that hindered the Kennedy Administration, the Nixon Administration was likewise constrained from establishing a truly uniform federal patent policy. Notwithstanding this, President Nixon ordered the Administrator of the General Services Administration (GSA) to promulgate implementing regulations for the Nixon Patent Policy.⁶⁸ Because the Nixon Patent Policy, like the earlier Kennedy

⁶⁴ Harbridge House, Government Patent Policy Study, Final Report for the FCST Committee on Government Patent Policy (1968) [hereinafter “Harbridge House Study”].

⁶⁵ 4 Harbridge House Study p. IV-93.

⁶⁶ 1 Harbridge House Study p. vi.

⁶⁷ Memorandum for Heads of Executive Agencies and Departments on Government Patent Policy, 36 Fed. Reg. 16,887 (August 23, 1971). The Nixon Patent Policy is reproduced in Appendix B.

⁶⁸ *Id.* at § 2.

Patent Policy, provided guidelines for both title allocation and licensing of federally owned patents,⁶⁹ GSA undertook two separate rulemakings. As this report focuses on universities, it will track only the rulemaking directed to title allocation decisions under federally funded research.

The GSA first issued a draft of the new title allocation regulations in 1972,⁷⁰ and then issued an interim set of regulations in 1973 (the “Interim GSA Patent Policy Regulations”).⁷¹ The heart of the regulations was a long form⁷² and short form⁷³ set of prescribed patent clauses to be included in funding agreements. The long form was to be used with industry contractors and nonprofit contractors when developmental work was to be performed. The short form could be used for basic and applied research by nonprofit organizations. The long form had three variations for use when the decision to allocate title was for the federal government,⁷⁴ for the contractor,⁷⁵ or to be deferred until actual inventions arose, as applicable.⁷⁶ The short form had two variations for use when the decision to allocate title was for the federal government,⁷⁷ or to be deferred until actual inventions arose, again as applicable.⁷⁸ However, even where the federal government was to take title, the contractor could petition to retain greater rights than the nonexclusive license set out in the standard clause (“Greater Rights Determinations”).⁷⁹

The Interim GSA Patent Policy Regulations appear to be the first time that contractor employee-inventors were specifically addressed. A process was established for a contractor’s employee-inventor to request retention of greater rights in the event that the contractor did not seek them, so long as the contractor authorized this.⁸⁰ This indicated that GSA, and likely the funding agencies, assumed that contractors would have in place patent assignment agreements such that the contractor would own any inventions arising from the funding agreement. This would have been a reasonable assumption as to private sector contractors, although perhaps less so for public sector contractors.

Notwithstanding the efforts of GSA to implement the title allocation

⁶⁹ This dual role would be replicated in Bayh-Dole itself, which has provisions covering title allocation and licensing of government-owned inventions.

⁷⁰ Federal Procurement Regulations, Allocation of Rights in Inventions, 38 Fed. Reg. 23,782, 23,791, Sept. 4, 1973.

⁷¹ *Id.*

⁷² *Id.* at § 1-9.107-5.

⁷³ *Id.* at § 1-9.107-6.

⁷⁴ *Id.* at § 1-9.107-5(a).

⁷⁵ *Id.* at § 1-9.107-5(b).

⁷⁶ *Id.* at § 1-9.107-5(c).

⁷⁷ *Id.* at § 1-9.107-6(a).

⁷⁸ *Id.* at § 1-9.107-6(b).

⁷⁹ *Id.*

⁸⁰ *Id.* at § 1-9.109-6.

regulations and standard patent clauses, NSF developed and began using its own IPA, substantially similar to that of NIH, in 1973.⁸¹ GSA reissued a revised final version of the rules in 1975 (the “GSA Patent Policy Regulations”).⁸² While there were many specific textual changes, the overall contours, terminology, and clauses of the GSA Patent Policy Regulations were quite similar to those of the Interim GSA Patent Policy Regulations.

Also during the 1970s, the earlier Bureau of the Budget was reorganized into the Office of Management and Budget (OMB),⁸³ which began issuing circulars attempting to bring uniformity to government agencies policies and practices. Of note here is Circular A-110, “Grants and Agreements With Institutions of Higher Education, Hospitals, and Other NonProfit Organizations: Uniform Administrative Requirements” issued in 1976.⁸⁴ While this was a further part of the Nixon Administration’s efforts to remake the federal government, it was still unclear how much authority the Executive Branch had to dictate policy to the various federal agencies, many of whom were created by statute and answered at least in part to Congress as well as to the President. Notwithstanding, OMB issued a series of Circulars purporting to impose uniform policies on all federal agencies.

Circular A-110 included Attachment N, Property Management Standards, which was a sort of omnibus for all property, real and personal (tangible and intangible), acquired or developed by the relevant educational and nonprofit contractors under federal grants and cooperative agreements. The section covering intangible property was divided between “inventions and patents” and “copyrights.” The former made specific reference to being governed by the Nixon Patent Policy, while the latter seemed to appear out of nowhere. It was likely included simply for completeness as OMB’s mission was to produce comprehensive policies across the government, and there is nothing in the administrative record to show an intentionality to change federal policy around academic researchers’ publications.

Attachment N directed funding agencies to “reserve a royalty-free, nonexclusive and irrevocable right to reproduce, publish, or otherwise use, and to authorize others to use, the work for Government purposes.” So far, so good: in the context of the long-standing federal IP policies that had been worked out in the aftermath of the Biddle Report, this was just an application of the Government Use License. But just as the Government Use License for patents had never been used to displace the civilian commercial positions of contractors, this copyright

⁸¹ See Raubitschek, *supra* note 55 at 153.

⁸² 40 FED. REG. 19814 (1975), *codified at* 41 C.F.R. Part 1-9 [hereinafter “GSA Patent Policy Regulations”]. The full text of the GSA Patent Policy Regulations is contained in Appendix D.

⁸³ Office of the President, Reorganization Plan No. 2 of 1970, 84 Stat. 2085 (Mar. 12, 1970).

⁸⁴ 41 FED. REG. 32016 (Jul. 30, 1976). Note that the Circular was released by OMB on July 1, 1976.

Government Use License was almost certainly not intended to displace the academic, scientific, technical, and medical publishing industry. One need only look at *who* was putting this license into place for further corroboration that it was of limited scope. Circular A-110 was issued under the Ford Administration, which had no obvious differences in positions towards IP, “risk capital,” and industry from the Nixon Administration. Further, Attachment N expressly references the Nixon Patent Policy as the governing policy for patent and invention rights. The Director of OMB at the time was Burt Lance, a Ford appointee, who had no obvious background or reason to slip in a radically new provision to a large omnibus policy process. So, it is nearly impossible to conjure up an explanation of this copyright Government Use License as justifying what some current revisionists now claim was a policy that authorized the government to effectively destroy the academic researchers’ and the publishing industry’s copyrights for works writing up research results from federal grants and cooperative agreements.

To the contrary, what one sees is a cautious approach to give a limited Government use license to funding agencies while implicitly *rejecting* any title allocation such as was in place for patents. In this way, the copyright policy was less extensive as to government rights than the patent and inventions policy was. Thus, the copyright license was likely not seen as particularly exceptional. It simply made express that the Government could use the written works within the Government. The reference to “publish” is highly unlikely to have meant “publish in competition with,” or in usurpation of, the publishing industry, but simply to cover the base that in the right circumstance—say no private publisher wanted to publish the work—the Government could publish the work to make it available. To interpret the policy otherwise would go directly against the long-established case law restricting the Government from decimating private industry, not to mention the Nixon and Ford Administrations’ clear pro-business, and pro-industry stances.

Another reason for not putting too much weight on Circular A-110 is that Congress created the Office of Federal Procurement Policy (OFPP) in 1974 to sit within OMB but take control of all aspects of federal procurement policy, including administration of grants and cooperative agreements.⁸⁵ OFPP in fact would later be charged with implementing Bayh-Dole through rulemaking in coordination with the Department of Commerce. This move would ensure that there was a uniform procurement system ultimately centered in the FAR. Further, specific statutes and rulemaking for and within agencies charged with particular subject matter can still override the central or uniform policies of the FAR. This again is why there are alternate clauses, and multiple versions of any particular

⁸⁵ Office of Federal Procurement Policy Act, Pub. L. 93-400, 88 Stat. 796 (Aug. 30, 1974).

clause, in the FAR for funding agreements. Circular A-110 is really just a background default where agencies do not have their own particular rules or when they are not using a mechanism like Other Transactions Authority to customize a particular funding agreement outside Bayh-Dole and the general FAR system.

The bigger problem is that the mistaken assumption about researcher assignments to contractors is even greater with regard to copyrighted academic works. As discussed in Part II.C below, the standard across the academy has been for faculty and other researchers to own and control their publications even where they assign their inventions. In fact, it was long held that there was a “teacher exception” to the WMFH provision of the 1909 Act. While that was arguably terminated as a statutory matter in the 1976 Act, universities raced to enshrine the exception in their IP policies, which have been upheld in multiple cases. This casts further doubt on Circular A-110 undertaking a radical change to contractor and contractor employee copyrights, because the essentially contemporaneous rush to disclaim faculty academic works as WMFH would have been directly at odds with a reading of Attachment N to Circular A-110 as severely restricting or undermining faculty copyrights to their academic works.

Finally, there was no mention of such an allegedly radical shift, or any kind of fanfare that would have certainly followed such a radical shift. It is true that there was some concerted pushback on the original version of Circular A-110 from places such as the Committee on Governmental Relations (later Council on Government Relations, COGR).⁸⁶ But even as some of the focus was on Attachment N, there was no mention of the IP provisions, much less of the copyright license. The COGR subcommittee coordinating the universities’ response to Circular A-110 certainly would have raised an issue about the Government Use License if they had any sense that it meant a broad license that would authorize federal agencies to upend the entire academic publishing industry that the universities were quite satisfied with at that time. Indeed, they got very into the weeds on cost accounting, records keeping, and disposition of personal tangible property, so it is not as if they did not scrutinize every corner of Circular A-110 carefully.

By the mid-1970s, then, intramural and extramural federal IP policies with regard to title allocation and licenses were fairly well developed. Federal employees generally had to assign inventions arising from their work. There was no copyright for federal government works. Federal contractor employees were also generally assigning their inventions to the contractor, although this was as

⁸⁶ See, e.g., Philip E. Meyers & Marie F. Smith, “Research Administration in History: The Development of OMB Circular A-110 Through Joseph Warner’s COGR Subcommittee, 1976-1979 (Cary Institute of Ecosystem Studies) *available at* https://www.caryinstitute.org/sites/default/files/public/reprints/smith_A110_2010.pdf

much due to the increase in private and public sector organizations taking control of their patentable inventions for commercialization. It also relied primarily on a system of contractual obligations to assign future inventions at time of hiring, followed up by actual executed assignments once an invention arose. Relying on this general invention assignment practice of contractors, the federal government did not dictate the terms of patent assignment agreements between contractors and their employees, but simply required that an assignment sufficient to guarantee the federal government's rights must be in place.⁸⁷ At the same time, unless an IPA was in place, the invention title allocation as between the federal government and the contractor was subject to the determination procedures of the Nixon Patent Policy, as implemented in the GSA Patent Policy Regulations and standard patent clauses incorporated into the particular funding agreement. Data rights were increasingly becoming an issue and agencies began applying patent policies for their disposition. But copyrights were generally left to the faculty members and researchers, who worked directly with academic publishers to publish their works (often with copyright assigned to the publisher). There appears to be nothing in the record discussing any significant use of the Government Use License for copyrights that was added to Circular A-110.

Importantly, the patent regulations remained in place even after passage of Bayh-Dole, until final rulemaking was completed in 1987 incorporating the Reagan Patent Policy, Reagan Executive Order, and amendments to Bayh Dole under the Trademark Clarification Act of 1984.⁸⁸ They provide critical “infrastructure” clauses and terms as well as the framework for understanding both the statutory provisions of Bayh-Dole and the regulations promulgated thereunder.

D. Bayh-Dole Act: Enactment, Implementation, and Amendments

President Carter backed a new uniform government patent policy,⁸⁹ and his Administration was able to get a bill introduced to Congress in 1980.⁹⁰ He

⁸⁷ GSA Patent Policy Regulations, § 1-9.107-5(a) (§ e(3) of long form patent clause) (“The Contractor shall obtain patent agreements to effectuate the provisions of this clause from all persons in his employ who perform any part of the work under this contract except nontechnical personnel, such as clerical workers and manual laborers.”) and § 1-9.107-6(a) (§ e(1) of short form patent clause) (“... the Contractor shall ... obtain patent agreements to effectuate the provisions of this clause from all persons who perform any part of the work under this contract except nontechnical personnel, such as clerical employees and manual laborers.”).

⁸⁸ *See infra*.

⁸⁹ Industrial Innovation Initiatives: Message to Congress on Administration Actions and Proposals, Pub. Papers 2070, 2071 (Oct. 31, 1979).

⁹⁰ H.R. 6933, 96th Cong. (1980). The sections of the bill relevant to Government patent policy provided that: (i) small businesses and nonprofit research institutions would be given the presumption of ownership in patent rights; and (ii) large businesses would get exclusive licenses

envisioned a system of exclusive licenses limited to specific fields of use that would be granted to federal contractors for inventions they developed under federal funding. If the contractor failed to commercialize the invention within that field of use, then the federal government could terminate the relevant license. At the same time, he supported the grant of patent title to contractors who were universities or small businesses in recognition of their “special place in our society.”

This is where the confusion starts as to the “real” Bayh-Dole Act and its legislative history. The statutory provisions we know as Bayh-Dole today were ultimately signed into law as part of H.R. 6933, but this was *only after* the text of S. 414 (the Senate bill separately introduced in 1979 by Senators Birch Bayh and Robert Dole) was used to replace all of the relevant original text of H.R. 6933 in an amendment-by-substitution legislative procedure. Sections 1 through 5 of the original H.R. 6933 were various amendments to the patent and trademark laws relating to things such as reexamination proceedings and fees and funding for the USPTO. They had nothing to do with disposition of federally owned or funded inventions. Section 6 contained the bill’s provisions for a new Chapter 38 in Title 35 (Patents) of the U.S. Code that would codify “The Government Patent Policy Act of 1980.”

The actual statutory provisions that became the Bayh-Dole Act were introduced by Senators Birch Bayh and Robert Dole in the Senate as the University and Small Business Patent Procedures Act (S. 414), on February 9, 1979, and referred to the Senate Committee on the Judiciary Committee. S. 414 focused only on the disposition of federally owned or funded inventions and had no sections or provisions for the USPTO fees/funding allocations and reexamination proceedings. Most critically, it avoided many of the controversies plaguing other federal patent policy bills by covering only nonprofit, university, and small business contractors. The retention of federally funded patent rights by large business federal contractors was a lightning rod for commentators concerned with unjust windfalls and monopolies for such businesses. The provisions of S. 414 clearly derived from the Nixon Patent Policy, GSA Patent Policy Regulations, and IPAs, but with some slightly different language in parts.

The Senate Committee on the Judiciary held hearings on S. 414 in late 1979 and issued a report—Senate Report No. 96-480—which is the *only* Congressional report that counts as formal legislative history for Bayh-Dole.⁹¹ The Committee amended the bill and reported it back out to the Senate on December 12, 1979.⁹²

only for specific fields of use, but the contractor could retain temporary title for up to 4.5 years before specifying the field of use.

⁹¹ Hearings and reports for H.R. 6933 and any other bills in Congress during the years 1978-1980 are directed to substantially different bills that did not have the provisions of Bayh-Dole.

⁹² The final amended version also excepted the Tennessee Valley Authority from the list of

The procedural process is highlighted here because there have been extensive distortions of Bayh-Dole and its legislative history as part of the 2000s IP revisionist history movement and much of this turns on using reports on the Carter Administration bill that have nothing to do with Bayh-Dole itself.

Highlights of the bill relevant here are that it included: a purpose section to be codified in the U.S. Code (to minimize the later need for extra-textual legislative history in later interpretations of the statute); definitions that mapped directly from the Kennedy Patent Policy, Nixon Patent Policy, or GSA Patent Policy Regulations; the basic right of contractors to elect to take title, and the conditions attendant thereto, including the Government Use License; March-In Rights, again taken directly from existing Executive Branch policies; authorization for OFPP to promulgate implementing regulations; and of course statutory unification of default federal patent policy rules.

After some debate—which also constitutes legitimate legislative history for Bayh-Dole—the Senate passed S. 414 on April 23, 1980.⁹³ However, it was defeated after being introduced as H.R. 2414 in the House of Representatives. Instead, the House passed the Carter Administration’s favored H.R. 6933 bill on November 17, 1980, which then advanced to the Senate. The Senate amended H.R. 6933 by substituting in the entirety the provisions of its own S. 414 for all of Section 6 in H.R. 6933 (leaving Sections 1-5 intact),⁹⁴ passed it on November 20, 1980, and then returned the amended H.R. 6933 to the House.⁹⁵ Thus, only debate occurring in the Senate on H.R. 6933 *after* the provisions of S. 414 were added to it in the amendment-by-substitution process count as formal legislative history for Bayh-Dole. Due to the pressing nature of the provisions of Sections 1-5 of H.R. 6933, the House essentially capitulated on the battle over the content of Section 6 and passed the Senate’s amended version with little discussion, and with no further amendments, the next day.⁹⁶ The House viewed the Senate’s Section 6 (Bayh-Dole) as incomplete because members of the House had wanted to pass a

agency/technology specific title allocation statutory rules superseded by Bayh-Dole as discussed below, as well as made some other relatively minor amendments to the remaining provisions.

⁹³ 126 CONG. REC. 8731, 8737-8749 (Apr. 23, 1980).

⁹⁴ H.R. 6933, Amendment SU 1779, proposed by Senator Dole and agreed to by Voice Vote of Senate, November 20, 1980. Section 6 retained the codification at Chapter 38, but now had the title “Patent Rights in Inventions Made With Federal Assistance.”

⁹⁵ 126 CONG. REC. 30360-30366 (Nov. 20, 1980).

⁹⁶ 126 CONG. REC. 30556-30560 (Nov. 21, 1980). Representative Kastenmeier’s comments on introducing and urging passage of the Senate amendments to H.R. 6933 are illuminating for context: “. . . the bill we passed on Monday . . . is intact except for section 6 In essence, the Senate deleted it. I regret that action, but nonetheless it is a fact, and the outlook is virtually nonexistent for anything we can do in that regard. . . . Under the circumstances, I would say . . . that we will have to wait until next year to pursue again the uniform patent policy section, and I would join . . . in doing that. But in the meantime, rather than hold hostage these noncontroversial areas, I think we have no real option but to move forward with this and send it to the White House.” *Id.* at 30560.

truly uniform government patent policy that would cover all contractors, not just small businesses and universities. However, the House contented itself with resolving to revisit the issue in the next Congress.

The bill was signed into law as simply “An Act to amend the patent and trademark laws” on December 12, 1980 as Public Law Number 96-517.⁹⁷ Section 6 later came to be known as “The Bayh-Dole Act,” perhaps in part because the more descriptive title of S. 414, the “University and Small Business Patent Procedures Act,” did not carry through even to Section 6 of H.R. 6933. Bayh-Dole’s provisions became effective on July 1, 1981, with OFPP authorized to promulgate implementing regulations at any time after receipt of recommendations from the Office of Science and Technology Policy (OSTP).

OFPP issued interim final regulations as OMB Bulletin 81-22 on June 30, 1981.⁹⁸ The regulations became effective July 1, 1981—to match up with Bayh-Dole’s effective date—and were to expire on December 31, 1981, when replaced by a final OMB Circular. Substantively, Bulletin 81-22 followed the same terminology and essential concepts of the Nixon Patent Policy and GSA Patent Policy Regulations, except of course as limited to the “retention by the contractor” long form version of the patent clause in the GSA Patent Policy Regulations.

The continuity of other requirements from the GSA Patent Policy Regulations to Bulletin 81-22 that were not actually required under Bayh-Dole belies the conservative nature of the federal patent policy process at the regulatory level. For example, Bayh-Dole as enacted only required that contractors disclose a subject invention “within a reasonable time after it is made,” while Bulletin 81-22 required contractors to disclose a subject invention within six months after the contractor’s personnel in charge of patent matters were notified by the inventors about the subject invention. This time restriction followed directly from the same time restriction in the GSA Patent Policy Regulations, albeit with a modified trigger.⁹⁹ Other time requirements in Bulletin 81-22 were changed from those contained in the GSA Patent Policy Regulations. However, few if any of these changes appear to have been specifically because of the language or intent of Bayh-Dole. Rather, they seem to be simply further steps in the continuing evolution of the federal government’s patent policy and thus represented a kind of tightening up of certain requirements based on new experiences. For example, in

⁹⁷ Codified as amended at 35 U.S.C. § 200 *et seq.* The full text of Bayh-Dole as passed and enacted is contained in Appendix E.

⁹⁸ 46 Fed. Reg. 34,776, July 2, 1981.

⁹⁹ In the GSA Patent Policy Regulations, the trigger was the conception or actual reduction to practice of the subject invention, whereas in Bulletin 81-22, it was the date of notification of the conception or actual reduction to practice from the inventors to the contractor’s patent administrators.

the GSA Patent Policy Regulations, contractors had to elect to retain title to subject inventions (in cases where the federal agency had used the “retention by contractor” patent clause in the funding agreement) at the time of disclosing the subject invention to the funding agency. But in Bulletin 81-22, contractors could take up until 12 months to elect to retain title from the date that their patent administrators learned of the invention, whereas they had to disclose the subject invention to the funding agency within six months of that date.

Bulletin 81-22’s sunset date was extended twice: first to January 31, 1982,¹⁰⁰ and then to February 28, 1982.¹⁰¹ The final OMB rulemaking implementing Bayh-Dole as enacted, OMB Circular A-124, was published on February 19, 1982 and became effective March 1 that year.¹⁰² While many comments had been received by OFPP during the rulemaking process, Circular A-124 was substantially the same as Bulletin 81-22.

Despite Congress’ sidestepping of the large business contractor issue in Bayh-Dole, there was still a desire in some parts of the federal government to extend the contractor title-election default rule to large businesses. At the same time, the clarity of Bayh-Dole’s one-size-fits-all rule was muddled by the uncertainty as to which companies would be deemed too large to fall within the Act’s ambit. Accordingly, in 1983 President Reagan replaced the Nixon Patent Policy with his own Memorandum to the Heads of Departments and Agencies that adopted the rules and policies of Bayh-Dole to become the new federal patent policy covering all contractors who fell outside of the scope of Bayh-Dole (the “Reagan Patent Policy”).¹⁰³ This essentially unified federal patent policy across *all* federal contractors, subject to distinctions discussed below.

The following year, Congress amended Bayh-Dole as part of the Trademark Clarification Act of 1984.¹⁰⁴ One amendment, in particular, has been debated among commentators. Section 210(c) was modified to acknowledge the new Reagan Patent Policy and require that whatever Executive Branch policy was promulgated for federal contractors not covered by Bayh-Dole itself would have to impose at a minimum the Government Use License and March-In Rights through funding agreements with those contractors.¹⁰⁵ By contrast, the Reagan

¹⁰⁰ 47 FED. REG. 117 (Jan. 4, 1982).

¹⁰¹ 47 FED. REG. 4628 (Feb. 1, 1982).

¹⁰² 47 FED. REG. 7556 (Feb. 19, 1982). The Bulletin’s

¹⁰³ Memorandum to the Heads of Executive Departments and Agencies: Government Patent Policy, 19 Weekly Comp. Pres. Doc. 252 (Feb. 18, 1983). The Reagan Patent Policy is reproduced in Appendix F.

¹⁰⁴ Trademark Clarification Act of 1984, Title V, Government Research and Development Patent Policy, P.L. 98-620, 98 Stat. 3335, Nov. 8, 1984. There were minor amendments to Bayh-Dole in 1982, but they simply re-designated the codified Act from its original location as Chapter 38 in Part IV to Chapter 18 in Part II, both within Title 35 of the U.S. Code. P.L. 97-256, Title I, §§ 101(5)-(6), 102, 96 Stat. 816, Sept. 8, 1982.

¹⁰⁵ See Senate Report No. 98-662 at 5808 (1984).

Patent Policy directed agencies to use the provisions of Bayh-Dole in funding agreements with contractors not covered by Bayh-Dole, but it allowed the agencies to waive any of those provisions at the agency's discretion if necessary to secure contractor participation and commercialization of any resultant subject inventions. While the amendment of § 210(c) may appear to have been an “endorsement” or “authorization” of the Reagan Patent Policy by Congress that effectively extended Bayh-Dole to cover large businesses, such an interpretation is not directly supported by the legislative history.

DoC, which took over from OFPP as the agency designated to promulgate rules under Bayh-Dole, began a rulemaking process in 1985 to implement all of these amendments through a new Chapter IV in Title 37 of the Code of Federal Regulations (CFR) consisting of a new Part 401.¹⁰⁶ The proposed rules closely followed Circular A-124 with changes primarily to effect the statutory amendments. The next year, DoC issued an Interim Final Rule that included further minor modifications based on public and agency comments on the proposed rule.¹⁰⁷ Then on March 18, 1987, DoC published the final rule implementing Bayh-Dole as amended (the “Bayh-Dole Regulations”), to become effective on April 17, 1987.¹⁰⁸ This contained only minor revisions as well. In some ways, then, Bayh-Dole only became fully implemented in 1987, after all of the issues raised by the Reagan Patent Policy and 1984 amendments were finalized and implemented through final rule making.

Following a matter of days after the effective date of the Final Bayh-Dole Regulations, President Reagan issued Executive Order 12591, “Facilitating Access to Science and Technology” (“1987 Reagan Executive Order”).¹⁰⁹ This Executive Order conformed Executive Branch technology and patent policy to both the recently enacted Federal Technology Transfer Act¹¹⁰ and Bayh-Dole amendments in the Trademark Clarification Act of 1984. It also incorporated the Final Bayh-Dole Regulations as references for the Federal Acquisition Regulations (FAR) patent allocation rules for large businesses not directly covered by Bayh-Dole.¹¹¹

¹⁰⁶ Department of Commerce, Notice of proposed rule making, 50 FED. REG. 13524 (Apr. 4, 1985).

¹⁰⁷ Department of Commerce, Interim final rule, 51 FED. REG. 25508 (Jul. 14, 1986).

¹⁰⁸ Department of Commerce, Final rule, 52 FED. REG. 8552 (Mar. 18, 1987).

¹⁰⁹ Executive Order 12591, “Facilitating Access to Science and Technology,” 52 FED. REG. 13414, Apr. 22, 1987.

¹¹⁰ P.L. 99-502 § 9(c), 100 Stat. 1785, Oct. 20, 1986 (adding a new § 210(e) to Bayh-Dole as codified that confirmed the precedence of the Stevenson-Wydler Technology Innovation Act of 1980 over Bayh-Dole to the extent that the former permitted or required certain dispositions of rights in subject inventions inconsistent with Bayh-Dole).

¹¹¹ The implementing rules for the Reagan Patent Policy continue to be codified in FAR Subpart 27.3. The switch from the Federal Procurement Regulation system (FPR) to the Federal Acquisition Regulation system (FAR) was effected in 1983. See Department of Defense *et al.*,

II. CURRENT RULES AND REGULATIONS GOVERNING FEDERAL PROCUREMENT AND FUNDING AGREEMENTS

A. The Basic Framework

1. *Types of funding agreements*

Central to the entire structure of the FAR and Bayh-Dole is a statutory delineation of different kinds of funding agreements:

Section 6303. Using procurement contracts

An executive agency shall use a procurement contract as the legal instrument reflecting a relationship between the United States Government and a State, a local government, or other recipient when -

(1) the principal purpose of the instrument is to acquire (by purchase, lease, or barter) property or services for the direct benefit or use of the United States Government; or

(2) the agency decides in a specific instance that the use of a procurement contract is appropriate.

Section 6304. Using grant agreements

An executive agency shall use a grant agreement as the legal instrument reflecting a relationship between the United States Government and a State, a local government, or other recipient when -

(1) the principal purpose of the relationship is to transfer a thing of value to the State or local government or other recipient to carry out a public purpose of support or stimulation authorized by a law of the United States instead of acquiring (by purchase, lease, or barter) property or services for the direct benefit or use of the United States Government; and

(2) substantial involvement is not expected between the executive agency and the State, local government, or other recipient when carrying out the activity contemplated in the agreement.

Section 6305. Using cooperative agreements.

An executive agency shall use a cooperative agreement as the legal instrument reflecting a relationship between the United States Government and a State, a local government, or other recipient when -

(1) the principal purpose of the relationship is to transfer a thing of value to the State, local government, or other recipient to carry out a public purpose of support or stimulation authorized by a law of the United States instead of acquiring (by purchase, lease, or barter)

Final Rule, Establishing the Federal Acquisition Regulation, 48 FED. REG. 42102 (Sep. 19, 1983).

property or services for the direct benefit or use of the United States Government; and

(2) substantial involvement is expected between the executive agency and the State, local government, or other recipient when carrying out the activity contemplated in the agreement.¹¹²

This tripartite structure has led some commentators and federal officials to argue that universities that receive funding from the federal government under grant agreements—the most common funding mechanism for university research—are not therefore acting “on behalf of the U.S. Government” in a way that could bring them under the Government Use License established under 35 U.S.C. § 202(c)(4) and discussed below.¹¹³

A further controversy has arisen under the “Other Transactions” authority that Congress granted to the Department of Defense (now Department of War (DoW)). An initial temporary grant of authority to the Defense Advanced Research Projects Agency (DARPA) arose in 1989 under the National Defense Authorization Act for Fiscal Years 1990 and 1991.¹¹⁴ This was made permanent in 1991 and extended to all of DoD and all military departments under the National Defense Authorization Act for Fiscal Years 1992 and 1993.¹¹⁵ Under this authority, DoW can enter into research and other funding arrangements that do not have to be classified as either contracts, grants, or cooperative agreements, and hence are covered by neither Bayh-Dole nor the FAR. This allows DoW to negotiate a wider range of IP allocation and rights provisions than would be allowable under Bayh-Dole or the FAR.¹¹⁶

¹¹² 31 U.S.C. §§ 6301-6305.

¹¹³ See, e.g., Pulsinelli, Gary, *Share and Share Alike: Increasing Access to Government-Funded Inventions Under the Bayh-Dole Act*, 7 MINN. J.L. SCI. & TECH. 393, 404-407, 462-468 (2006) (citing “Transcript of Committee on Intellectual Property in Genomic and Protein Research Innovation,” National Academies 146 (Feb. 27, 2004) *available at* http://www7.nationalacademies.org/step/Genomics_Committee_Meeting_1_transcript.pdf (transcribing, among others, presentation by Dr. Mark Rorhbaugh, Director, Office of Technology Transfer, National Institutes of Health, discussing NIH policies on technology transfer in the biotechnology area, including interpretations of Bayh-Dole); note that this transcript is currently not available on line).

¹¹⁴ P.L. 101-189, Div. A, Title II, Part F, § 251, 103 Stat. 1352 (Nov. 29, 1989) (adding § 2371 to Title 10 (Armed Forces) of the U.S. Code). DoD has promulgated regulations under 10 U.S.C. § 2371 that are codified at 32 C.F.R. Part 3.

¹¹⁵ P.L. 102-190, Div. A, Title VIII, § 826, 105 Stat. 1290 (Dec. 5, 1991).

¹¹⁶ See GAO, *Intellectual Property: Information on the Federal Framework and DoD’s Other Transaction Authority* (GAO-01-980T, Jul. 17, 2001) (Statement of Jack L. Brock, Managing Director, Acquisition and Sourcing Management and John B. Stephenson, Director, Natural Resources and Environment, before the Subcommittee on Technology and Procurement Policy, Committee on Government Reform, House of Representatives).

2. *Disposition of rights under Bayh-Dole*

Section 202 of Bayh-Dole sets out the intended allocation of IP rights as between funding agencies and contractors. Section 202(a) establishes the default rule that nonprofit and small business contractors “may elect to retain title to any subject invention.” “To retain title” means that because the contractor presumably has rights to title for the subject invention under assignment obligations of its employee inventors (as discussed below) it will be allowed to keep such title (if it elects to do so), rather than have to assign it over to the federal government. If it has not secured title from its employees and independent contractors then this creates the *Stanford* problem discussed below. Funding agencies can negotiate in some arrangements to get title to the patents arising under the funding agreement, but they need to have special statutory-based justifications to exercise this exception.¹¹⁷ Note that the default to leave patents with the contractors helps set the baseline that copyright is left with them (and their employees and independent contractors) as well.

Section 202(c) sets forth the mandatory clauses for funding agreements. Clauses for subject invention disclosure requirements, the Government Use License, and utilization reports are set forth in the Standard Patent Rights Clauses of the Bayh-Dole Regulations.¹¹⁸ There are also special requirements to be included in funding agreements with nonprofit contractors, including universities. The first is that nonprofit contractors may not assign subject inventions to third parties without authorization from the funding agency, unless the assignee is a patent management company working on behalf of the nonprofit contractor to license the patents for commercialization. The second is that the nonprofit contractor must share royalties with the inventor. The third is that the nonprofit contractor must use the balance of licensing income, after expenses including payments to inventors, for the support of scientific research or education. Finally, the fourth is that the nonprofit contractor must give preference to small businesses when licensing subject inventions.

March-In Rights have been part of federal patent policy since the Kennedy Patent Policy and were codified as Section 203 in Bayh-Dole. While there may have been one or two exercises of March-In Rights prior to Bayh-Dole, there have been none under the statute (though there have been multiple petitions to agencies and proceeding to consider doing so).

¹¹⁷ 35 U.S.C. § 202(a) Provisos (i) – (iv) in the subsection set forth the only justifications and they are quite limited. Further, agencies exercising these proviso exceptions must submit a detailed explanation to the Secretary of Commerce, and the Secretary and affected contractor can challenge the use of the exception. 35 U.S.C. § 202(b).

¹¹⁸ 37 C.F.R. 401.14 (Standard patent rights clauses).

B. The *Stanford v. Roche* Contractor Employee IP Allocation Problem

Long after the Biddle Report had faded from view, and after decades of having the question of assignments between contractors and employees buried in bureaucratic regulations, the mistaken assumption of universal assignments burst back into view in the 1990s and 2000s. *This section reviews cases in detail because they support one of this Report's main findings that the extreme interpretation and proposed use of the "federal purpose license" in Circular A-110 by the Nelson Equitable Access Memo will not actually work for chain of title/license reasons.*

Possibly in part because nothing in the Patent Rights Clauses expressly requires the contractor to have a full patent assignment agreement in place with all inventive employees, some universities began assuming that Bayh-Dole obligated a contractor's employees to assign subject inventions by act of law so long as the university timely elected to retain title.¹¹⁹ Some universities developed practices whereby they only bound their inventor employees to agree to assign inventions when they arose and upon request of the university.¹²⁰ In some cases this was done in a specific employment agreement, offer letter, or separate patent assignment agreement.¹²¹ In other cases it was done through faculty handbooks or other official statements of policy.¹²² Many universities developed practices whereby they only bound their inventor employees to agree to assign inventions when they arose and upon request of the university.

However, none of these paths secured the actual assignment of inventions to the university at the time of execution of the agreement, date of hire, or date of issuance of the policy, as applicable. At most, they secured a contractual obligation for the inventor to assign the invention at some later date, as a kind of call option. But some universities and nonprofit organizations also sought to exercise their "statutory right" under Bayh-Dole to take title from employees even where no express agreement was in place with the employee by electing title to the invention with the funding agency.¹²³

Even before *Stanford*, this interpretation had been rejected by federal district courts. In *Gen-Probe, Inc. v. Center for Neurologic Study*, the Center raised

¹¹⁹ See *Bd. of Trs. of Leland Stanford Junior Univ. v. Roche Molecular Sys., Inc.*, 131 S. Ct. 2188 (2011).

¹²⁰ See e.g., *Bd. of Trs. of Leland Stanford Junior Univ. v. Roche Molecular Sys., Inc.*, 583 F.3d 832 (Fed. Cir. 2009) *aff'd*, 131 S. Ct. 2188 (2011); *Univ. of Pittsburgh v. Townsend*, No. 3:04-cv-291., 2007 WL 2263079, at *1 (E.D. Tenn. 2007), *aff'd on other grounds*, 542 F.3d 513 (6th Cir. 2008).

¹²¹ See, e.g., *Stanford*, 583 F.3d at 837.

¹²² See, e.g., *Univ. of Pittsburgh*, 2007 WL 2263079, at *1.

¹²³ See, e.g., *id.* at *1; *Gen-Probe, Inc. v. Ctr. for Neurologic Study*, 853 F. Supp. 1215 (S.D. Cal. 1993).

counterclaims based on the principal investigator's ("PI") work on grants the Center had received from federal agencies.¹²⁴ In particular, the Center alleged that the PI had conceived subject inventions under the grants but refused to assign them to it, even after it timely elected title with the funding agency. When the Center sued for assignment of the inventions, the court found that the PI was not a party to the funding agreements—his listing as PI in the agreements did not make him a party as he was not listed as a party otherwise nor a signatory (other than as PI)—and that there was apparently no agreement between him and the Center. Further, the court cited the Patent Rights Clause in the Final Bayh-Dole Regulations to support the proposition that "[if the PI], and employees like him, were automatically parties to federal funding agreements, that requirement [of written agreements] would be superfluous."¹²⁵

In *University of Pittsburgh v. Townsend*, the University of Pittsburgh ("Pitt") alleged that David Townsend and others had subverted and misappropriated Pitt's rights to certain patents.¹²⁶ Pitt relied on its Faculty Handbook and other policies that purported to effect an assignment obligation on faculty researchers. However, by its own terms, the policy was not to be relied on by faculty as Pitt's definitive policies. Townsend had made Pitt aware of his outside consulting with a private firm. After working on two NIH grants while at Pitt, Townsend disclosed his inventions on the appropriate Pitt form but did not include an assignment. Pitt's technology transfer personnel processed the disclosure but never followed up with Townsend for the assignment. Pitt entered into a collaboration agreement with Townsend's outside consulting firm. Meanwhile, Townsend pursued a patent application on his invention with his consulting firm listed as assignee.

As one of its arguments in litigation, Pitt asserted that Bayh-Dole operated to assign title from Townsend to Pitt once the latter elected to take title with the funding agency. It cited the district court opinion in *Stanford* which had found that Bayh-Dole had indeed vested title in Stanford.¹²⁷ But the *Townsend* court found this unpersuasive as the Stanford researcher had already executed at least an express agreement to assign his invention to Stanford before executing the assignment agreement with Roche's predecessor, Cetus (see discussion of the case below). Further, Pitt had full knowledge of Townsend's inventions and work with his consulting firm and still failed to secure any kind of assignment agreement from him.

In the reverse direction, John Fenn, a Nobel laureate researcher at Yale University, tried to invoke section 202(d) of Bayh-Dole to claim that it trumped

¹²⁴. *Gen-Probe*, 853 F. Supp. at 1217.

¹²⁵. *Id.* at 1219.

¹²⁶. *Univ. of Pittsburgh*, 2007 WL 2263079, at *1.

¹²⁷. *Id.* (citing *Bd. of Trs. of Leland Stanford Junior Univ. v. Roche Molecular Sys., Inc.*, 487 F. Supp. 2d 1099, 1115, 1119 (N.D. Cal. 2007)).

any contractual arrangements between inventors and their employers because only the federal funding agency has the authority to decide disputed ownership of subject inventions.¹²⁸ The federal district court found that Fenn's attempts to portray Yale as having made a decision to allow him to retain title to his invention in correspondence with the NIH were unsuccessful because Yale officials had already elected to retain title. It also found that Bayh-Dole did not preempt state law contractual rights in this matter.

Finally, in *Stanford*, the Supreme Court squarely rejected an interpretation of Bayh-Dole as a vesting statute that would assign title to contractors from their employees by act of law.¹²⁹ Dr. Mark Holodniy became a research fellow at Stanford University in 1988.¹³⁰ He executed Stanford's then standard Copyright and Patent Agreement ("CPA") which provided that he "'agree[d] to assign' to Stanford his 'right, title, and interest in' inventions resulting from his employment" at Stanford.¹³¹ His work required him to learn and use the polymerase chain reaction technique ("PCR") that Cetus Corporation had pioneered and his supervisor arranged for him to learn. Upon arriving at Cetus, Holodniy executed Cetus' Visitor's Confidentiality Agreement ("VCA"), which provided that he "'will assign and do[es] hereby assign' to Cetus his 'right, title and interest in each of the ideas, inventions and improvements' made 'as a consequence of [his] access' to Cetus."¹³²

After nine months, during which the invention at the heart of this case was conceived, Holodniy returned to Stanford to test and refine the invention. He worked with colleagues there, allegedly under federal funding.¹³³ In 1991, Roche purchased all of Cetus' PCR-related assets. Over the next few years, it developed and distributed commercial kits worldwide based in part on Holodniy's work at Cetus. In 1992, Holodniy and his Stanford colleagues finished testing and refining the invention. Stanford then obtained invention assignments from them and filed patent applications on the technique. Three patents ultimately issued. In 2000, Stanford approached Roche about taking a license to the Holodniy patents, but Roche declined after responding that it was a co-owner or licensee of the inventions based upon the terms of the VCA, some materials transfer agreements, and under common law shop rights. Stanford sued Roche for patent infringement in 2005.

¹²⁸ Fenn v. Yale Univ., 393 F. Supp. 2d 133, 140–41 (D. Conn. 2004).

¹²⁹ Bd. of Trs. of Leland Stanford Junior Univ. v. Roche Molecular Sys., Inc., 131 S. Ct. 2188 (2011).

¹³⁰ *Id.* at 2192; *see also* Bd. of Trs. of the Leland Stanford Junior Univ. v. Roche Molecular Sys., Inc., 583 F.3d 832, 837 (Fed. Cir. 2009).

¹³¹ *Stanford*, 131 S. Ct. at 2192.

¹³² *Id.*

¹³³ *Id.* at 2192; *Stanford*, 583 F.3d at 838. Stanford was never able to produce the government funding agreement.

The district court erroneously resolved the case largely in Stanford's favor by relying on the provisions of Bayh-Dole to transfer title by operation of law.¹³⁴ It also did not mention the first-in-time CPA and instead treated an earlier materials transfer agreement and the VCA as the governing contracts. The court found that the invention had been conceived by Holodniy while he was working at Cetus, and that, based on the terms of the VCA, he had preassigned his rights in it to Cetus. Notwithstanding this assignment, once Holodniy returned to Stanford, his work to reduce it to practice under federal funding triggered the provisions of Bayh-Dole. Under the court's interpretation of Bayh-Dole's section 202(d), the government has a "first right of refusal" to subject inventions (which include inventions first conceived or actually reduced to practice under federal funding), the contractor has a "second right of refusal," and then the inventor has only the remaining residual rights to petition for title. Because Stanford timely elected to take title, the court concluded that the statutory provisions of Bayh-Dole superseded Roche first-in-time contractual assignment rights.

The Federal Circuit reversed the district court's Bayh-Dole holding, however, by rejecting the district court's "right of second refusal" theory for contractors.¹³⁵ It also discussed the role of the CPA, which Stanford now seemed to be relying on as an alternate avenue to cut off the effectiveness of the VCA. The court distinguished present assignments of expectant interests from mere promises to assign rights to expectant interests in the future. Relying on its precedents, the court asserted that present assignment of expectant interests—rights to property that do not yet exist—are valid but establish only equitable title until the invention is actually made and a patent application filed. However, immediately upon the filing of a patent application, legal title to the patent rights vest in the assignee with no further action required.

In contrasting such present assignments from mere promises to assign rights in the future (future contingent assignments), the Federal Circuit explained that the latter are often used when the prospective assignee does not know in advance whether it wants title to the future invention and thus instead establishes what is essentially a call option. The two forms can both be contractual, but the present assignment is established by language such as "hereby assign," whereas the promise to assign is established by a phrase such as "agree to assign." In contrast to the present assignment of expectant interests, when a promise to assign is made, and a patent application is later filed, no transfer of title occurs until and unless the option is called. In the meantime, the inventor may legally assign any

¹³⁴. See *Bd. of Trs. of Leland Stanford Junior Univ. v. Roche Molecular Sys., Inc.*, 487 F. Supp. 2d 1099, 1117–19 (N.D. Cal. 2007).

¹³⁵. *Bd. of Trs. of Leland Stanford Junior Univ. v. Roche Molecular Sys., Inc.*, 583 F.3d 832, 844 (Fed. Cir. 2009).

of her rights to third parties. Of course, if and when the holder of the call option calls it in, then the assignor will not be able to honor that option and convey the invention rights (unless she can reacquire them from the current assignee). At this point, she would be in breach of her option agreement. But the counter party to that agreement would only be able to sue for contract damages and not for an equitable remedy that would require conveyance of the invention's rights.

After finding superior equitable title in Roche for the Holodniy patents, the Federal Circuit then proceeded to reject the lower court's interpretation of Bayh-Dole. It found that the district court had misinterpreted a Federal Circuit precedent which ruled that some violations of Bayh-Dole could allow the government to void title held by contractors or their employees. However, such violations did not void title *ab initio* and thus the government would have to act to void title.¹³⁶ Most importantly, the Federal Circuit overturned the district court's ruling and disputed Stanford's position that the inventor residual title scheme set out in section 202(d) was the *only* way for inventors to hold title. It cited *Townsend* with approval for its proposition that later elections of title under Bayh-Dole by a university do not void earlier valid assignments from the inventor to a third party. It then adopted the *Fenn* court's interpretation that "the primary purpose of the Bayh-Dole Act is to regulate relationships of small business and nonprofit grantees with the Government, not between grantees and the inventors who work for them."¹³⁷

On certiorari, the Supreme Court granted and affirmed the Federal Circuit.¹³⁸ In particular, it reaffirmed its earlier holdings that rights in an invention belong to the inventor, absent some express transfer between the inventor and his employer or another. It rejected Stanford's argument that Bayh-Dole is a "vesting statute" similar to the Atomic Energy Act, in which title to relevant inventions is vested in designated agencies by act of law. The Court focused on the definition under Bayh-Dole which requires that a "subject invention" be an "invention of the contractor."¹³⁹ Under the majority's view, the emphasized portion would be superfluous if *any* invention arising under federal funding were subject to Bayh-Dole. Instead, the Court held that a subject invention is one to which the

¹³⁶ *Id.* By contrast, the district court had held that such actions were automatically void. *Bd. of Trs. of Leland Stanford Junior Univ. v. Roche Molecular Sys., Inc.*, 487 F. Supp. 2d 1099, 1118–19 (N.D. Cal. 2007).

¹³⁷ *Stanford*, 583 F.3d at 845 (quoting *Fenn v. Yale Univ.*, 393 F. Supp. 2d 133, 141–42 (D. Conn. 2004)).

¹³⁸ *Stanford*, 131 S. Ct. 2188. Stanford's petition for certiorari centered on one question: "Whether a federal contractor university's statutory right under the Bayh-Dole Act, 35 U.S.C. §§ 200–212, in inventions arising from federally funded research can be terminated unilaterally by an individual inventor through a separate agreement purporting to assign the inventor's rights to a third party." Petition for Writ of Certiorari at i, *Bd. of Trs. of Leland Stanford Junior Univ. v. Roche Molecular Sys., Inc.*, 131 S. Ct. 502 (2010) (No. 09-1159) (mem.), 2010 WL 1138571, at *i.

¹³⁹ *Id.* at 2196 (emphasis added).

contractor lawfully has rights or title.

Most importantly, the Court found that the title-allocation scheme under section 202(d), which leaves the inventor with only a conditioned residual interest, applies only to subject inventions (i.e., those to which the contractor has already obtained title). In other words, the contractor has to first obtain rights to inventions created by its employees, and then if federal funding is used in the conception or actual reduction to practice of these inventions, the scheme of section 202(d) controls. Thus, just as its predecessor in the GSA regulations had done, section 202(d) operates as a control mechanism for inventors who have already assigned their inventions to the contractor. If the contractor and government later fail to elect title as between them, and thus imply that they have no interest in bringing the invention to practical application, then the inventor can petition to get her rights back so that she can commercialize the invention. This of course is entirely consistent with the deep history of Bayh-Dole and the mistaken assumption upon which government patent policy had been built.¹⁴⁰

Ultimately, the *Stanford* decisions at the Federal Circuit and Supreme Court pushed universities and other federal contractors to do what they always should have done: secure present assignments when researchers join the organization or risk losing inventions created by them; Bayh-Dole does not get them out of this predicament. Many universities indeed changed their IP policies to address the *Stanford* outcome. The Author assisted some of them in doing so.

C. Federal Law and Policy Pertaining to Copyrightable Works Arising in the University Academic Environment

Universities produce an enormous amount of copyrightable works. These works take the form of everything from academic scholarship to teaching materials to promotional brochures and other administrative materials. Two main questions arise pertaining to university copyrightable works. The first is whether and how faculty and other academic researchers keep title to their scholarly works in light of the work made for hire provision of the Copyright Act.¹⁴¹ The second is whether and how federal agencies can control the allocation and use of copyrighted works arising under funding agreements.

The Copyright Act's "work made for hire" doctrine (WMFH) vests authorship and ownership of employee-created works in the employer.¹⁴² Certain kinds of

¹⁴⁰ The Author wrote the Supreme Court amicus brief submitted by AIPLA in *Stanford* which placed a version of this history and the requirement for contractor to secure assignment from inventors before the Court. Brief of Amicus Curiae, Am. Intell. Prop. Law Ass'n in Support of Neither Party, *Stanford*, 131 S. Ct. 2188 (No. 09-1159), 2010 WL 5312674.

¹⁴¹ 17 U.S.C. §§ 101, 201.

¹⁴² 17 U.S.C. § 201(b).

commissioned works by independent contractors can also be WMFH if explicitly stated in writing and if conforming to one of nine enumerated independent contractor relationships.¹⁴³ WMFH under the Copyright Act is quite different from the “hired to invent” common law rule that assigns certain inventions to employers discussed above: WMFH is not an assignment or transfer of the ownership rights of the copyright. Rather it establishes that the hiring party—even if a corporation or other non-natural legal person—is the true and sole “author” of the work for copyright law purposes.¹⁴⁴ Accordingly, in a WMFH situation, the hiring party need never give credit or attribution to the employee/contractor for the work that the latter created.

Further, a determination that a work is WMFH also cuts off the termination rights granted to natural authors under which they can take back any rights assigned, licensed, or otherwise transferred to another party beginning in the 35th year after any such transfer was executed and continuing for five years from that point.¹⁴⁵ This termination right cannot be waived by the author, for their own protection. It was introduced in an effort to allow authors and composers to be able to renegotiate onerous deals that they may have signed when they were less well known or experienced earlier in their careers than they would later become, or even to give them a “second bite at the apple” for works of unknown value at time of transfer but which become valuable later.

Although faculty are employees of a university,¹⁴⁶ their works of scholarly authorship have traditionally not been treated by either themselves or their universities as WMFH. Yet, there is no statutory basis for this so-called “teacher exception” that would automatically exempt faculty works from WMFH statutory provisions without a separate written agreement disclaiming the works as such by the university. To the extent that a judicial or common law teacher exception

¹⁴³ *Id.*

¹⁴⁴ This goes back to an earlier conception of works of authorship in which the party who had authorized the work was then the “author.” See, e.g., PAMELA O. LONG, *OPENNESS, SECRECY, AUTHORSHIP: TECHNICAL ARTS AND THE CULTURE OF KNOWLEDGE FROM ANTIQUITY TO THE RENAISSANCE* (Johns Hopkins Univ. Press 2001).

¹⁴⁵ 17 U.S.C. § 203.

¹⁴⁶ The Author has heard claims that faculty—especially tenured professors on nine month appointments—are not employees but instead independent contractors and thus would require a written WMFH agreement, or that scholarship is not part of the scope of any employment relationship that might exist because university officials cannot direct a faculty member’s scholarship. The claims are implausible because: i) faculty almost certainly mean any of the standard tests for employment status (benefits, tax withholding, regular employment, employer provision of working space and “tools”) and the sole right of the faculty member to direct her own scholarship is unlikely to counteract these sufficient to turn her into an independent contractor; and ii) while university officials do not dictate scholarly projects, the faculty member is required to engage in *some* research and scholarship as part of their appointment and she will not receive promotions, tenure, pay raises, etc., without producing sufficient quantities of high quality scholarship.

existed under the 1909 Copyright Act, it does not appear to have been carried forward into the Copyright Act of 1976, which more clearly defined the term “work made for hire.”¹⁴⁷

The case that is often cited for the proposition that such an exception survived—*Weinstein v. University of Illinois*—actually established the opposite.¹⁴⁸ In *Weinstein*, the U.S. Court of Appeals for the Seventh Circuit noted that the 1976 Act likely eliminated whatever judicial or common law teacher exception existed under the 1909 Act. It then explained that the University of Illinois, like many other academic institutions, instituted a new copyright policy after the 1976 Act changes to preserve the status quo that faculty members’ academic writings would not be considered WMFH. The mechanism of this policy response was critical. The 1976 Act made all works created in the scope of employment WMFH “unless the parties have expressly agreed otherwise in a written instrument signed by them.”¹⁴⁹ Full-time faculty members are employees, and when they are required to publish as part of their academic appointment (*e.g.*, for tenure and promotion review), then even their academic scholarly works are likely to be interpreted as works done within the scope of their employment. This may be true even though the works are not done “for” the university, nor are the topics, content, or manner of research/writing dictated or controlled by the university.¹⁵⁰ According to the *Weinstein* court, the University of Illinois therefore instituted its new policy and incorporated it into each professor’s contract such that it would serve as the written instrument establishing that the parties had indeed “agreed otherwise” as to what would constitute WMFH.

The court then proceeded to parse *this policy* and was not ruling on whether a judicial or common law teacher exception still existed under the 1976 Act itself. While the court made several references to the longstanding tradition of allowing academics to retain copyright to their scholarly works, it did so simply as part of interpreting the policy because the court had determined that the *intention* of the policy was to retain the pre-1976 Act status quo. Overall, the policy disclaimed faculty works as WMFH, but made three exceptions to this (works falling under these then *would* be deemed WMFH): (i) works created under the terms of a university agreement with an outside party that required the university to hold or

¹⁴⁷ P.L. 94-553, 90 Stat. 2541 (Oct. 19, 1976). Some have argued that the legislative history of the 1976 Act is silent on the point because Congress had no intention of eliminating the teacher exception. See Elizabeth Townsend, *Legal and Policy Responses to the Disappearing “Teacher Exception,”* or *Copyright Ownership in the 21st Century University*, 4 MINN. INTELL. PROP. REV. 209 (2003).

¹⁴⁸ 811 F.2d 1091 (7th Cir. 1987).

¹⁴⁹ 17 U.S.C. § 201(b).

¹⁵⁰ “The [work made for hire] statute is general enough to make every academic article a ‘work for hire’ and therefore vest exclusive control in universities rather than scholars.” 811 F.2d at 1094.

transfer ownership of the work; (ii) works expressly commissioned in writing by the university; and (iii) works created as a specific requirement of employment or as an assigned duty. The University of Illinois argued that the work at issue—an article on a clinical program that the faculty member taught in—fit into category (iii) and therefore was WMFH. While the trial court had accepted this argument and held that the article was indeed WMFH, the Seventh Circuit overturned this on the grounds that such an interpretation of the policy would allow the exception to swallow the rule. To read the scope of (iii) to mean that academic articles created by faculty members were “specific requirements of employment” because the faculty member was required to publish as part of his general faculty appointment would negate the goal of the policy and leave faculty in the position that the 1976 Act left them in, namely with all of their writings potentially being WMFH. The court’s references to preserving “longstanding practices” were made to underscore the goal of the policy—to preserve the pre-1976 Act status quo by contractually establishing the parameters of what would be designated as WMFH. Accordingly, the holding of the case was only that the work in question did not fall under category (iii) of the policy, and therefore, *under the main provision of the policy* it was not WMFH (because the main provision disclaimed faculty works as WMFH unless they fit into one of the three exception categories).

The year after *Weinstein* was decided, the Seventh Circuit discussed the teacher exception in dicta in *Hays v. Sony Corporation*.¹⁵¹ While the court ventured that “we might, if forced to decide the issue, conclude that the exception had survived the enactment of the 1976 Act,” it did not decide the matter in this case. Further, the court made it clear in this opinion that it believed that its earlier decision in *Weinstein* was in the camp of those who “widely believed that the 1976 Act abolished the teacher exception.”¹⁵²

Both the *Weinstein* and *Hays* courts thus concede that as a matter of strict literal statutory interpretation and based on the requirement that professors publish as part of their academic appointments, faculty academic writings seem to fall within the definition of WMFH. The *Weinstein* and *Hays* courts believe this outcome is bad on policy and pragmatic grounds—given the long-settled expectations and reliance of the parties—but do not determine a way to avoid the outcome or issue a holding that the teacher exception survived the enactment of the 1976 Act.

Accordingly, there is likely no “teacher exception” to WMFH, which means that *all* works created by regularly employed faculty under any of their three main

¹⁵¹ 847 F.2d 412 (7th Cir. 1988).

¹⁵² 847 F.2d at 416 (citing *Weinstein*, 811 F.2d at 1093-1094; Rochelle Dreyfuss, *The Creative Employee and the Copyright Act of 1976*, 54 U. CHI. L. REV. 590, 597-98 (1987); Simon, *Faculty Writings: Are They “Works for Hire” Under the 1976 Copyright Act?*, 9 J. COLL. & UNIV. L. 485, 495-99 (1982)).

areas of obligation to the academic institution—teaching, research, and service—are likely to be WMFH, *unless* there is an express, written agreement between the university and the faculty member establishing a different set of terms for determining when a work is WMFH. Many if not most academic institutions have established the requisite written agreement to alter this default and “retain” the pre-1976 Act understanding of a teacher exception. Faculty members at institutions that do not have such a policy incorporated into each faculty member’s contract should not assume that their scholarly works will be upheld as their own.

The case law varies widely as to what other works produced in universities are WMFH.¹⁵³ Regardless of whether a teacher exception still exists, copyrightable works such as software and computer programs that are not traditional academic scholarship but which the faculty member considers to be part of her scholarly work will usually be deemed WMFH under many universities’ IP allocation policies if those works have a commercial nature.¹⁵⁴ College-level faculty may be able to retain title to their class and teaching materials, even if prepared for classes they were hired to teach, on the grounds that either the materials: (i) do not fit within the scope of employment; or (ii) do fit within the scope of employment but there is a written agreement establishing other allocation rules.¹⁵⁵

The second main copyright issue facing universities is the increased interest on the part of federal agencies to require the free dissemination of copyrightable works arising from federally funded research. In particular, as the costs of academic journal subscriptions have increased dramatically in the past decade or so, academic publications that contain material describing the outcomes of federally funded research are no longer readily accessible by the general public. Free abstracting and citation services such as that provided by NIH’s PubMed had

¹⁵³ Works created by staff or regular employees that are administrative, promotional, or otherwise non-academic are generally WMFH. *See, e.g.,* Forasté v. Brown University, 248 F.Supp.2d 71 (D. R.I. 2003); Manning v. Board of Trustees Community College, 109 F.Supp.2d 976 (C.D. Ill. 2000).

¹⁵⁴ *See, e.g.,* Rouse v. Walter & Associates, L.L.C., 513 F.Supp.2d 1041 (S.D. Iowa 2007). This case did not decide whether the teacher exception still existed, because it was decided on the grounds that the commercial nature of the work was dispositive to judge it a clear WMFH even if such an exception still existed.

¹⁵⁵ *See, e.g.,* Bosch v. Ball-Kell, 2006 WL 2548053, 80 U.S.P.Q.2d 1713 (C.D. Ill. 2006); *but see contra* Vanderhurst v. Colorado Mountain College District, 16 F.Supp.2d 1297 (D. Colo. 1998). Because *Bosch* was a decision based on a motion for summary judgment, it did not need to resolve the WMFH question. Thus, it did not specify whether a teacher exception still exists for class materials (or otherwise). It also over- interpreted the Seventh Circuit’s references to the “longstanding traditions” related to the teacher exception in *Weinstein* and *Hays*. Teachers in grades lower than the college level will generally have their teaching materials deemed WMFH. *See, e.g.,* Shaul v. Cherry Valley-Springfield Central School District, 363 F.3d 177 (2nd. Cir. 2004). However, evidence that teaching materials were created outside of the scope of employment alters the analysis. Pavlica v. Behr, 397 F.Supp.2d 519 (S.D.N.Y. 2005).

attempted to alleviate this.¹⁵⁶ NIH issued rules in 2005 requesting all funding recipients to submit to PubMed “an electronic version of the author’s final manuscript upon acceptance for publication, resulting from research supported, in whole or in part, with direct costs from NIH.”¹⁵⁷ The author’s final manuscript is “defined as the final version accepted for journal publication, and includes all modifications from the publishing peer review process.” In 2007, the Consolidated Appropriations Act, 2008, made NIH’s manuscript submission policy mandatory for FY 2008.¹⁵⁸ In 2009, the Omnibus Appropriations Act, 2009, made the policy mandatory on a permanent basis.¹⁵⁹ Senate proposals from this same time would have extended these manuscript submission policies to the other large federal agencies funding research.¹⁶⁰

D. Current OSTP Initiatives for Public Access to Scientific Publications and Data Arising from Federally Funded Research

In 2013, John Holden, Director of OSTP, issued a Memorandum for the Heads of Executive Departments and Agencies directing conditions under which contractors needed to make research data and publications available to the public

¹⁵⁶ Available at <http://www.ncbi.nlm.nih.gov/pubmed/>.

¹⁵⁷ National Institutes of Health, Final Policy Statement, Policy on Enhancing Public Access to Archived Publications Resulting from NIH-Funded Research, NOT-OD-05-022 (Feb. 3, 2005) available at <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-05-022.html>.

¹⁵⁸ P.L. 110-161, Div. G, Title II, § 218, 121 Stat. 1844 (Dec. 29, 2007) (providing that “The Director of the National Institutes of Health shall require that all investigators funded by the NIH submit or have submitted for them to the National Library of Medicine’s PubMed Central an electronic version of their final, peer-reviewed manuscripts upon acceptance for publication, to be made publicly available no later than 12 months after the official date of publication: Provided, That the NIH shall implement the public access policy in a manner consistent with copyright law.”).

¹⁵⁹ P.L. 111-8, Div. F, § 217, 123 Stat. 524 (Mar. 11, 2009) (providing that “The Director of the National Institutes of Health (‘NIH’) shall require in the current fiscal year and thereafter that all investigators funded by the NIH submit or have submitted for them to the National Library of Medicine’s PubMed Central an electronic version of their final, peer-reviewed manuscripts upon acceptance for publication, to be made publicly available no later than 12 months after the official date of publication: Provided, That the NIH shall implement the public access policy in a manner consistent with copyright law.”).

¹⁶⁰ E.g., Federal Research Public Access Act of 2009 (S. 1373), available at <<http://thomas.loc.gov/cgi-bin/query/z?c111:S.1373>>, §1. This bill would have required major funding agencies to develop policies to make all grantees’ published work publicly available. Specifically, it would have required: (i) free online access to all peer-reviewed publications stemming from agency funding within six months of publication; and (ii) the online posting of authors’ post-acceptance but pre-publication manuscripts, including changes made through the peer-review process. The bill excluded conference presentations, “preliminary data analysis,” classified research, and research resulting in patentable discoveries. It also excluded authors who do not submit their work for publication. Articles and manuscripts covered by the bill would have to be available in a digital archive that permits free public access, interoperability, and long-term preservation, and agencies would have to submit annual reports of performance with the relevant congressional committees.

(Holdren Memo).¹⁶¹ Critique of this Memo is reserved for Part III below; the following is merely a summary of the Memo's provisions.

The overarching purpose of the Holdren Memo is to “ensur[e] that, to the greatest extent and with the fewest constraints possible and consistent with law and the objectives set out below, the direct results of federally funded scientific research are made available to and useful for the public, industry, and the scientific community.”¹⁶² Such results include both copyrighted works and data. The Memo also notes “that publishers provide valuable services, including the coordination of peer review, that are essential for ensuring the high quality and integrity of many scholarly publications. It is critical that these services continue to be made available.”¹⁶³ The Memo then directs agencies to create public access plans “consistent with the objectives set out in this memorandum” that “must contain the following elements:”

- a) a strategy for leveraging existing archives, where appropriate, and fostering public-private partnerships with scientific journals relevant to the agency's research;
- b) a strategy for improving the public's ability to locate and access digital data resulting from federally funded scientific research;
- c) an approach for optimizing search, archival, and dissemination features that encourages innovation in accessibility and interoperability, while ensuring long-term stewardship of the results of federally funded research;
- d) a plan for notifying awardees and other federally funded scientific researchers of their obligations (e.g., through guidance, conditions of awards, and/or regulatory changes);
- e) an agency strategy for measuring and, as necessary, enforcing compliance with its plan;
- f) identification of resources within the existing agency budget to implement the plan;
- g) a timeline for implementation; and
- h) identification of any special circumstances that prevent the agency from meeting any of the objectives set out in this memorandum, in whole or in part.¹⁶⁴

The objectives are split between scientific publications and scientific data in

¹⁶¹ OSTP, Memorandum for the Heads of Executive Departments and Agencies: Increasing Access to the Results of Federally Funded Scientific Research (Feb. 22, 2013).

¹⁶² *Id.* at 1.

¹⁶³ *Id.*

¹⁶⁴ *Id.* at 2.

digital formats. Objectives for the first center on long term preservation and public accessibility for search, retrieval, and analysis and “shall:”

- a) Ensure that the public can read, download, and analyze in digital form final peer- reviewed manuscripts or final published documents within a timeframe that is appropriate for each type of research conducted or sponsored by the agency.

Specifically, each agency:

- i. shall use a twelve-month post-publication embargo period as a guideline for making research papers publicly available; however, an agency may tailor its plan as necessary to address the objectives articulated in this memorandum, as well as the challenges and public interests that are unique to each field and mission combination, and
 - ii. shall also provide a mechanism for stakeholders to petition for changing the embargo period for a specific field by presenting evidence demonstrating that the plan would be inconsistent with the objectives articulated in this memorandum;
- b) Facilitate easy public search, analysis of, and access to peer-reviewed scholarly publications directly arising from research funded by the Federal Government;
- c) Ensure full public access to publications’ metadata without charge upon first publication in a data format that ensures interoperability with current and future search technology. Where possible, the metadata should provide a link to the location where the full text and associated supplemental materials will be made available after the embargo period;
- d) Encourage public-private collaboration to:
 - i. maximize the potential for interoperability between public and private platforms and creative reuse to enhance value to all stakeholders,
 - ii. avoid unnecessary duplication of existing mechanisms,
 - iii. maximize the impact of the Federal research investment, and
 - iv. otherwise assist with implementation of the agency plan;
- e) Ensure that attribution to authors, journals, and original publishers is maintained; and
- f) Ensure that publications and metadata are stored in an archival solution that:

- i. provides for long-term preservation and access to the content without charge,
- ii. uses standards, widely available and, to the extent possible, nonproprietary archival formats for text and associated content (e.g., images, video, supporting data),
- iii. provides access for persons with disabilities consistent with Section 508 of the Rehabilitation Act of 1973,¹ and
- iv. enables integration and interoperability with other Federal public access archival solutions and other appropriate archives.

Objectives for the second center on the relevant data being “stored and publicly accessible to search, retrieve, and analyze.”¹⁶⁵ To do so the agency’s plan “shall:”

- a) Maximize access, by the general public and without charge, to digitally formatted scientific data created with Federal funds, while:
 - i. protecting confidentiality and personal privacy,
 - ii. recognizing proprietary interests, business confidential information, and intellectual property rights and avoiding significant negative impact on intellectual property rights, innovation, and U.S. competitiveness, and
 - iii. preserving the balance between the relative value of long-term preservation and access and the associated cost and administrative burden;
- b) Ensure that all extramural researchers receiving Federal grants and contracts for scientific research and intramural researchers develop data management plans, as appropriate, describing how they will provide for long-term preservation of, and access to, scientific data in digital formats resulting from federally funded research, or explaining why long-term preservation and access cannot be justified;
- c) Allow the inclusion of appropriate costs for data management and access in proposals for Federal funding for scientific research;
- d) Ensure appropriate evaluation of the merits of submitted data management plans;
- e) Include mechanisms to ensure that intramural and extramural researchers comply with data management plans and policies;
- f) Promote the deposit of data in publicly accessible databases, where appropriate and available;

¹⁶⁵ *Id.* at 5.

- g) Encourage cooperation with the private sector to improve data access and compatibility, including through the formation of public-private partnerships with foundations and other research funding organizations;
- h) Develop approaches for identifying and providing appropriate attribution to scientific data sets that are made available under the plan;
- i) In coordination with other agencies and the private sector, support training, education, and workforce development related to scientific data management, analysis, storage, preservation, and stewardship; and
- j) Provide for the assessment of long-term needs for the preservation of scientific data in fields that the agency supports and outline options for developing and sustaining repositories for scientific data in digital formats, taking into account the efforts of public and private sector entities.¹⁶⁶

Intriguingly, the directives here only use the term “without charge” once—in the first requirement for data public access plans. For scientific publications, the relevant language is simply “[e]nsure that the public can read, download, and analyze in digital form final peer-reviewed manuscripts or final published documents within a timeframe that is appropriate for each type of research . . .” and “use a twelve-month post-publication embargo period as a guideline for making research papers publicly available . . .” Because OSTP clearly knew how to, and did, use “without charge” in one provision, then the only reasonable inference is that it was *not* actually directing agencies to make scientific publications available *without charge*. The question then is what *was* OSTP requiring?

It must be noted that when Justice O’Connor said that copyright is the engine of free expression, she was stating a truism too often lost today: incentives to make writing publicly available, even with some attendant payment, is far better than a world of private manuscripts and collections. “Publicly available” does not necessarily mean “free of charge.” The analogy is public houses (pubs) and private clubs. The former are open to the public, even though of course patrons must pay for their drinks and food, and sometimes even a cover charge to enter; the latter are accessible only by members and the club can deny membership to anyone for any reason. Pubs can certainly refuse service under certain conditions (problematic behavior) but they cannot simply discriminate on coarse racial, ethnic, or other suspect class designations.

Thus, arguably, federal funding agencies and their contractors could satisfy the Holdren Memo’s requirements for scientific publications by ensuring

¹⁶⁶ *Id.* at 5-6.

reasonably accessible interfaces or repositories that anyone from the public can easily search, read, download, and thus analyze the relevant writings, even if there were still some charge for this service or the individual works. This interpretation is bolstered by the “policy principles” section of the Memo. “It is critical for [publishers’] services continue to be made available.”¹⁶⁷ These services cannot continue to be made available where publishers’ returns are decimated and they cease to be viable going business concerns.

Finally, the Holdren Memo also acknowledges what it must: “Consistent with the America COMPETES Reauthorization Act of 2010, nothing in this memorandum, or the agency plans developed pursuant to it, shall be construed to authorize or require agencies to undermine any right under the provisions of title 17 [Copyright Act] or 35 [Patent Act], United States Code, or to violate the international obligations of the United States.”¹⁶⁸ This should not be treated either by OSTP or the agencies as mere “check the box” boilerplate. OSTP memos are very much subject to Congressional legislation and private rights created thereunder.

Whatever the actual impact and import of the Holdren Memo, in 2022 OSTP took a significant extension beyond established legal and policy frameworks with a new Memorandum directed to “Ensuring Free, Immediate, and Equitable Access to Federally Funded Research” (Nelson Memo).¹⁶⁹ Under the Biden Administration, OSTP proclaimed that cost and time intensive scientific publications would now have to be “immediately available” upon publication “*without an embargo on their free and public release.*”¹⁷⁰ This may extend beyond established interpretations of the government’s legal authority.

Nelson’s OSTP seemed to want to undo not only the Holdren Memo’s embargo period—allowing publishers to maintain exclusivity and attendant cost recoupment—but also the careful way that the Holdren Memo seemed to dodge *actually* requiring agencies and contractors to make scientific publications available free of charge to the public. At the same time, the Nelson Memo actually only “*recommends* that federal agencies:”¹⁷¹

1. Update their public access policies as soon as possible, and no later than December 31st, 2025, to make publications and their supporting data resulting from federally funded research publicly accessible without an embargo on their free and public release;

¹⁶⁷ *Id.* at 1.

¹⁶⁸ *Id.* at 6.

¹⁶⁹ OSTP, Memorandum for the Heads of Executive Departments and Agencies: Ensuring Free, Immediate, and Equitable Access to Federally Funded Research (Aug. 25, 2022).

¹⁷⁰ *Id.* at 1 (emphasis in original).

¹⁷¹ *Id.* at 1 (emphasis added).

2. Establish transparent procedures that ensure scientific and research integrity is maintained in public access policies; and,
3. Coordinate with OSTP to ensure equitable delivery of federally funded research results and data.¹⁷²

While the Nelson Memo’s explanatory and background sections seem to point to “free” and “freely available” as meaning at no cost or charge to the public, the Memo never actually uses the term “no cost” or “no charge,” or defines “free” and “freely available” as meaning no cost or charge. Thus, it is unclear whether the “recommended” requirements here actually mean that scientific publications must be made available at truly no cost. It might mean that some minimal cost recovery level of charge is permissible.

Despite that ambiguity, the Memo directs (“recommends”?) that agencies “update or develop new public access plans for ensuring” that scientific publications arising from federally funded research **“are made freely available and publicly accessible by default in agency-designated repositories without any embargo or delay after publication.”**¹⁷³ Such plans “should describe:”

- i. How peer-reviewed scholarly publications should be made publicly accessible;
- ii. How to maximize equitable reach of public access to peer-reviewed scholarly publications, including by providing free online access to peer-reviewed scholarly publications in formats that allow for machine-readability and enabling broad accessibility through assistive devices; and
- iii. The circumstances or prerequisites needed to make the publications freely and publicly available by default, including any use and re-use rights, and which restrictions, including attribution, may apply.¹⁷⁴

For scientific data in Part 3(b), the Memo is poorly structured to not actually give any prefatory directions, as it did for scientific publications in Part 3(a), but instead simply launches into a list of recommendations (requirements?):

- i. Scientific data underlying peer-reviewed scholarly publications resulting from federally funded research should be made freely available and publicly accessible by default at the time of publication, unless subject to limitations as described in Section 3(c)(i) and should be subject to federal agency guidelines for researcher responsibilities regarding data management and sharing plans, consistent with Section

¹⁷² *Id.* (emphasis in original).

¹⁷³ *Id.* at 3 (emphasis in original).

¹⁷⁴ *Id.* at 3-4 (footnote omitted).

- 3(c) of this memorandum.
- ii. Federal agencies should develop approaches and timelines for sharing other federally funded scientific data that are not associated with peer-reviewed scholarly publications.
 - iii. Federal agencies should also provide guidance to researchers that ensures the digital repositories used align, to the extent practicable,⁷ with the National Science and Technology Council document entitled “Desirable Characteristics of Data Repositories for Federally Funded Research.”
 - iv. Federal agency research: Agency public access plans and policies should clarify that federal researchers must follow federal laws and OMB policies that govern federal agencies’ information management practices and protect certain types of data,⁹ to the extent that the scientific data created by, collected by, under the control or direction of, or maintained by the federal researchers is subject to those laws and policies.¹⁷⁵

The Nelson Memo seems to contemplate that funding agencies will have to pay publication costs,¹⁷⁶ but it is not clear whether the OSTP team under Nelson had any real clue how much this would actually cost. In other words, did they actually inquire as to the open access cost structures for authors and editors that the major publishers have established? Are the various agencies actually able to afford to add into their extramural research grants the requisite publishing costs for whatever publications are produced under it?

The Nelson Memo only obliquely refers to the mechanism by which federal agencies can undertake to make publications and data “freely and publicly available” when it mentions “use and re-use rights” in Part 3(a)(iii). This may be a reference to the Government Use License, but it could also be a reference to the Government Use Statute. The OSTP under Nelson might not really have known what mechanisms existed and had simply heard there were some “use” rights floating around.

Finally, the oddly ambivalent nature of whether this is actually a directive or a mere recommendation is underscored by the “directions” in the various operative parts: “**In accordance with the provisions listed in Section 3, Federal agencies *should* develop . . .**”; “Agencies *should* complete and publish full policy development . . .”; “Federal agencies *should* update or develop new public access plans”¹⁷⁷ The Holdren Memo unambiguously directed agencies with

¹⁷⁵ *Id.* at 4 (footnotes omitted).

¹⁷⁶ *See, e.g., id.* at Part 3.d.

¹⁷⁷ *Id.* at 3.

“shall”—why the “should” here”?

At the end of the Nelson Memo, the same non-conflict with rights under the Copyright Act and the Patent Act language is included as it was in the Holdren Memo. But here one gets the sense the language *is* “check the box” boilerplate. The Nelson Memo has no references to the importance of the publishing industry and indeed seems to relish the idea of materially affecting its business model. Somehow high-quality scientific publications will magically still appear and be freely available to the public when they do.

III. WHY THE HOLDREN AND NELSON MEMOS ARE AGAINST LAW AND LONGSTANDING FEDERAL GOVERNMENT EXTRAMURAL RESEARCH IP POLICY

Beginning in the early 2000s, a concerted effort began to offer revisionist takes on all manner of IP issues, especially including the U.S. R&D system, and became typified by breathless “revelations” that some “obscure” law actually enabled government to proceed in radically different ways than it had over the preceding 200 years. A couple of the more outlandish ones were that: states had the authority to “break” patents they didn’t like; and that Bayh-Dole actually contained a price control provision for retail drugs derived from federally funded research. Both were soundly debunked, including by Birch Bayh himself for Bayh-Dole, but not after costing states like Vermont significant amounts in legal fees for meritless cases, under the first, and uncountable hours of wasted effort and time of advocates and government officials under the second. The fantasy that funding agencies can essentially take private copyrights of academic researchers without compensation is another such initiative by IP skeptics that has already consumed far more time and effort than it should have. Unfortunately, in this latest round, officials from the Obama and Biden Administrations got caught up in the mischaracterisation and have attempted to impose policy through OSTP that is against both law and longstanding federal government extramural R&D policy.

A. The Teacher Exception, University IP Policies, and *Stanford v. Roche*

As recounted above in Part II, arrangements between federal funding agencies and contractors do not in and of themselves change the IP rights of employees or independent contractors of the contractor, nor do statutes like Bayh-Dole “vest” covered subject inventions in anyone other than the legal inventor. And because the longstanding “teacher exception” has been expressly codified in all major universities’ faculty IP policies that the Author is aware of, there is no WMFH with regard to faculty academic writings. At best there may be a non-exclusive license to the university, for external grant funded research or the so-called

Harvard Open Access “mandate.” But because in many, or perhaps all, cases of the latter, there is a right to terminate the license by the faculty member, then the durability and scope of these licenses is suspect and unreliable.

1. *Bayh-Dole*

Bayh-Dole was expressly limited to inventions and patents. It does not cover data, much less copyright. Thus, there is no federal statute governing the allocation of copyrights arising from federally funded research. While there has been at least one bill in Congress to address such allocation, it did not pass and therefore no real intent or policy of Congress can be gleaned from it. At the same time, as the only federal statute governing allocation of any IP rights arising from such research, Bayh-Dole and its implementation should be instructive for how other forms of IP should be handled.

As recounted in Part II above, the Supreme Court held that Bayh-Dole is not a “vesting” statute meaning that it does not, by operation of law, allocate initial inventorship or ownership of inventions arising under federal funding. Instead, it directs funding agencies to include certain provisions in their funding agreements with university, nonprofit, and small business extramural research contractors, and delegates rulemaking authority to DoC to flesh out and integrate the requirements and policies of Bayh-Dole within the overall federal procurement system codified in the FAR. This has led to a codified set of standard clauses that can be mixed and matched in negotiations between funding agencies and contractors, meaning that there is no single form of funding agreement.

While Bayh-Dole sought to finally unify extramural research patent policy across the federal government, it in fact left some significant discretion to both the rulemaking agency and individual grant-making agencies. Accordingly, it is important to note that the rulemaking and standard clauses have changed over time. This means that a funding agreement from a few decades ago could be materially different from one executed this year simply by dint of the changed rules and clauses, and not even any considerations of specific negotiations between the funding agency and a contractor. Further, the “Other Transactions Authority” allows the DoW, at least, to sidestep much of the Bayh-Dole system. Therefore, the only thing that matters as far as IP allocation rights is the specific funding agreement under which IP arose.

If a funding agency fails to incorporate appropriate versions of the standard clauses, neither Bayh-Dole nor the procurement system rules in the FAR and DFAR “save” it from the consequences of this failure. This is the central lesson of the Supreme Court’s ruling in *Stanford*. The funding agreement governs and the government interests or rights intended under Bayh-Dole and its implementing

regulations are foregone.

At the same time, Bayh-Dole and its implementing regulations recognize the importance of leaving civilian application rights to contractors for private industry commercialization. This is fact is one of the core tactics that tech transfer specialist attorneys, including the Author, use when working on behalf of contractors negotiating funding agreements with federal agencies. The agencies have no need to advertise that variants of the standard clauses permit retention of exclusive rights to civilian applications of any subject inventions and patents arising from the research, but they will readily concede and agree to the variants when they are raised and pressed by competent contractor counsel. This major carve out for civilian commercial applications runs deep through the entire history of federal patent policy from its earliest days in the early 1800s all the way through the Kennedy and Nixon Patent Policies, and down into Bayh-Dole and its implementing regulations.

Finally, Bayh-Dole itself as a statute still does not directly cover funding agreements with big businesses. Omitting them was the core political compromise that allowed Bayh-Dole to pass and be enacted, as recounted above, and Congress was never able to directly revisit the issue. Instead, Congress seems to have long acceded to the Reagan Administration's "extension" of the Bayh-Dole regulatory system to big businesses. But technically, any current presidential administration could rescind that Executive Order. Notably, neither Democrat nor Republican administrations have elected to do so in the 40 years since it was issued.

2. The teacher exception and university IP policies

As recounted in Part II above, when WMFH entered U.S. copyright law in the 1909 Act, many courts found there to be an uncodified "teacher exception" following the longstanding European and American university practice of leaving copyrights with faculty members. Whether that was fully justified was mooted by enactment of the 1976 Act which is generally—though not universally—held to have eliminated any such federal common law "teacher exception." Notwithstanding, most if not all major universities rushed to change their IP policies to provide the statutory signed writing disclaiming of WMFH for faculty academic works, so that just in case the teacher exception were held to have been abrogated by the 1976 Act, faculty would be left in the same position as if it had not been. The Seventh Circuit held University of Illinois' new policy to have done exactly that. While one of the decisions expressed in dicta the court's desire to have had the teacher exception survive the 1976 Act, it was also realistic that it probably had not. Accordingly, the state of play is that major universities disclaimed WMFH status for faculty academic works in university IP policies and

at least one circuit court has upheld the validity of those disclaimers.

This maintaining of the IP policy-based teacher exception remained the status quo into the 2000s. Faculty and universities treated such policies as leaving completely unencumbered title to faculty academic works with the faculty authors. This meant that faculty have routinely assigned or granted exclusive licenses to their works for publication to publishers *with no reservation of any rights such as routinely is used by universities assigning or licensing patents covered by Bayh-Dole*. Thus, while universities clearly know how to make assignments or grant exclusive licenses when encumbered title is involved,¹⁷⁸ in the Author's experience universities never required or suggested that faculty members include any such reservation of rights language when assigning or exclusively licensing the faculty member's writings for publication in journals or books. Thus, to whatever extent Circular A-110 could actually reach to individual faculty members—including as PIs, but not signatories or parties to federal funding agreements—no one treated it as limiting PIs and other faculty researchers' title to their writings. *If Circular A-110's "federal purpose" license automatically applied to these faculty members' writings since 1976 then innumerable academic publishing contracts are defective in that the faculty member assigned or licensed more rights than they held*. No one has ever alleged this, nor does it seem likely to be held up in court. Further, if this interpretation were to be upheld, including the recent revisionist take on the scope of this federal purpose license, then the various funding agencies could begin making every copyrighted published work covered under the license since Circular A-110 took effect in 1976 publicly available tomorrow. Not even the Nelson Memo is advocating that; instead, it opts for prospective deployment of the license only.

Accordingly, we return to the fact that the license has to have been included in a valid and enforceable funding agreement for it to apply. But the question then returns as to whether a license as between the funding agency and the contractor actually binds the contractor's employees or is effective against the latter's IP. *Without a clear express license grant from the faculty member to the university-contractor, a "federal purpose license" included in the agency-university funding agreement does not apply to the faculty member's writings*. This is simply the privity problem laid bare in *Stanford*. Technically, the university is then in breach

¹⁷⁸ Standard examples of such language are:

The license granted hereunder may be subject to all the applicable provisions of any Licenses to the United States Government executed by licensor. The license granted hereunder is subject to the overriding obligations to the U.S. Government set forth in 35 U.S.C. §§ 200-212 and applicable governmental implementing regulations.

and

This Agreement is subject to all of the terms and conditions of Public Law 96-517 as amended, and LICENSEE agrees to take all action necessary on its part as LICENSEE to enable LICENSOR to satisfy its obligation thereunder, relating to Invention(s).

of its obligations to the federal government, but that breach does not give the parties or the court any avenue by which to impose the license on the faculty member retroactively.

The ways in which a license from the faculty member to the university may be found are in IP policies, employment letters, or separate license agreements put in place by universities either to satisfy/comply with any number of external sponsored research requirements or to attempt to sign on to the “Harvard Open Access” initiative. For the former, some universities have included language in their IP policies “reserving” or “retaining” a nonexclusive license to faculty writings arising under sponsored research (internal or external) to allow the university to comply with its obligations under funding agreements, whether they are federal government, private foundation, or even for profit corporation sources. However, when written this way, the policies muddy the line between whether the universities in fact disclaimed WMFH or are maintaining the statutory WMFH of employees but then granting a license to the *faculty member* to use the work.

For the Harvard Open Access initiative, procedures have been even more muddled. The proponents of the initiative mistakenly asserted that a faculty senate or departmental unit faculty vote could create a license from *all* faculty that would be “prior” to any subsequent assignments or exclusive licenses of the faculty to publishers, thus “encumbering” those assignments or licenses with a durable non-exclusive license in the university to make the work freely available through its own, or third party, repositories. This unfortunately does not reflect how legal rights flow in a university setting. Even supporting robust “shared governance,” as the Author does, the legal status of faculty and faculty senates is that they do not control or govern the legal entity that is the university.

An American university is either a nonprofit corporation or a state agency. In the former, a governing board oversees the corporation and appoints a president or chancellor to then operate as a chief executive who, in turn, appoints other administrators flowing down through a provost and college and department deans. The faculty are not part of this legal governing structure although they can have input on policies and hiring to the extent set forth in the nonprofit corporation university’s charter and other governing documents. A powerful example of this came to light in the recent controversies swirling around Harvard University and the press and public’s surprise that something called the “Harvard Corporation” and its “shadowy” board actually controlled the university. But to anyone paying attention or actually representing universities in a legal capacity, as the Author has, this was well understood.

Accordingly, a faculty vote at the senate or departmental level does not and cannot alter legal rights of the university or its faculty. At most, a faculty vote could be interpreted to be the granting of a license *by the members present and*

voting in the affirmative for the resolution. It does not and cannot bind the faculty members who voted against or abstained from voting for the open access resolution, much less the faculty members not in attendance or who had not even joined the faculty when the resolution was adopted. University of California system schools such as Berkeley learned this the hard way when proponents forced through a faculty senate open access resolution only to be informed by university counsel that the resolution only did as described above. The university did subsequently undertake an initiative to lawfully change its IP policy to include the “open access” license through the proper administration and counsel channels.

B. The Government Use License Does Not Reach Through to the Publisher

Even if a license is properly created from the faculty member to the university (and then passed to the government via a funding agreement), this does not somehow magically reach through to a faculty member’s publisher. When the faculty member submits their manuscript for publication, arguably the faculty member still holds the copyright to the *manuscript*. The faculty member does *not* hold the copyright to the finally published version, formatting and all. At most an argument could be made that they have some rights to their journal contribution if they licensed and did not assign their copyright to the journal for publication. But the journal’s compilation or collective work copyright is going to cover the formatting, selection, and sequencing of the final issue. For a monograph, the faculty author’s licensing rather than assignment may give even greater rights to the author for the final publication. But such licenses are rare; most academic authors outside of a relatively small number of law professors, are assigning their copyrights to the publishers. The publishers then register the final works under the publisher as owner of the copyright.

This is why the Holdren Memo, while a challenge, was at least minimally acceptable and viable for the publishing industry. By restricting the “federal purpose license” and funding agreement requirements to the preprint manuscript and with a 12-month post publication embargo at that, the Holdren Memo kept the demands within the plausible bounds of the faculty member’s copyright.

But the Nelson Memo appears to extend beyond any reasonable account of what the faculty author plausibly owns. The final published assigned work is arguably a derivative work of the author’s manuscript, or at least a later version of the work the author created, and so the publisher holds copyright to that derivative or revision of the author’s manuscript. While the publisher’s copyright may be “thin” as to the newly added material (formatting, typeface, pagination, etc.) it still exists and is not something the author’s manuscript copyright can reach.

C. The Government Use/Federal Purpose License Does Not Cover General Distribution to the Public

Even assuming universities can get the proper licenses in place through appropriate and legally effective measures, the “federal purpose license” cannot be used to simply displace the private publishing industry. As documented above, the long history of the license on the patent side has been for narrow government purposes, not to displace private industry. Even for military equipment and munitions, the Department of Defense (now Department of War) has continued to *procure* finished equipment and munitions rather than authorizing contractors to build finished products under the Government Use License. Likewise, even as various administrations have flirted with the idea of making pharmaceuticals available at low or no cost to the public through the Government Use License (where the patent(s) covering the drugs were developed under federal funding), Government Use Statute, or March-In Rights, no administration has yet to do so. The reason is the core principle of a limited federal government: it should not be displacing or severely undermining private industry that is normally expected to deliver goods and services to the American public. The government and economy is set up around private capitalism and not government socialism or communism (meant literally and not as an epithet or judgment). The government *could* transition to a socialist or communist orientation at some point in the future—and then this issue of government provision of goods and services could be revisited—but this seems quite unlikely under the current administration. We cannot even get single payer health care approved in this country (whether one views that as good or bad).

It is also important to note that the U.S. Copyright Office and Library of Congress have long held the line that they will not digitize and make freely publicly available all deposit copies of registered works, despite immense public interest in having them do so. But to do so would render practically ineffective all the valid in term copyrights on these works as the public can just access the works for free at the LoC’s or USCO’s websites. Not doing so makes research on copyright registrations and deposit copies much harder, as one has to travel to Washington D.C. to view the copies in person. But the steadfast decision flows from again the central concept of federal government IP policy: to not displace or severely undermine the private industries that are set up to deliver the relevant IP derived goods and services to the public.

Accordingly, the Nelson Memo represents a significant departure from established federal IP policy and practice that goes against over 200 years of federal IP policy—tracing back to the early 1800s decisions by Congress to appropriate money to buy inventions and patents even from military employees

who developed them on the job, as well as to the court decisions rejecting Crown Rights and establishing that the federal government had no right to displace or undermine an industry even when it had licenses to the relevant patents. There has also simply never been a case where any prior administration—Republican or Democrat—has authorized, much less demanded, the wholesale free reproduction of copyrighted works originating from private industry and citizens. While the federal government does not take copyright to its own productions, those are works originating with the government. Grant and cooperative agreement funded research, even when deemed “extramural” for the government, is not actually “government research” as will be discussed further in Part III.E below. Where the government seeks to obtain goods or services for its own use or distribution, procurement contracts are the legally recognized mechanism —paying fair and full price for the goods and services in a clear agreement to receive title as applicable—and not grant or cooperative funding agreements. This is similar to the full and fair compensation that may be demanded by private IP owners in the Court of Federal Claims under the Government Use Statute when the government engages in unauthorized use or reproduction of that IP.

D. No Cost Access With No Embargo Period Is An Unauthorized Use Actionable Under the Government Use Statute

Under the analyses in Parts III.B-C above that it is not a legitimate or authorized federal purpose/government use to freely distribute the finally published work, then any funding agency who does so, or has the university or other agent do so on its behalf, will be liable to the affected publisher for full and fair compensation in the Court of Federal Claims. Such compensation will be at its highest for the Nelson Memo’s egregious overreach of demanding “immediate” free public distribution of the finally published work upon publication. Such free distribution by the government—in direct competition with the private industry making such publications possible and delivering valuable goods and services to the American public—may undermine significantly any value in the publisher’s own private initiative and copyright. Again, the final published version represents not just the author’s manuscript creation (including post peer review revisions), but also the *publisher’s* contribution of a derivative work and compilation/collective work, which copyrights are *not* covered by the author’s manuscript copyright. Further, the publisher can of course lawfully assert such a derivative work right because the author has authorized the publisher to create the derivative work.

Advocates of the Nelson Memo’s approach try to construe the “federal purpose license” as a “little” thing, simply a nonexclusive license, no big deal.

But to then turn around and attempt to use it to simultaneously publish the finalized formatted publisher's work for free and on globally available websites transforms it from a little thing into an effective destruction and complete taking of the author's and publisher's rights. This effect of a nonexclusive license is well set out in the federal patent policy cases from the 1800s onwards, and most famously set out by Giles Rich, the architect of the 1952 Patent Act and then judge on the Federal Circuit (and widely acknowledged to be one of the foremost experts on the patent system): because IP rights are *exclusive* rights then all the IP owner gets is the right to exclude; even a single limited nonexclusive license destroys this right to exclude. The Nelson Memo's mandate is not even just a limited field of use nonexclusive license, it truly destroys any effective right to exclude that the author and the publisher should have under their copyrights as the entire world will be allowed access, reproduce, and distribute the copyrighted works through the repositories. What is left of the copyright right to exclude?

E. The Desired Distribution Needs to Be Obtained Under a Procurement Contract, Not a Grant or Cooperative Agreement

Where the government acquires full rights in a final work through an outright purchase, it has legal authority to determine the terms of subsequent dissemination, including making the work publicly available without restriction. The current publishing landscape also demonstrates that commercial publishers routinely offer open access publication models. Against that backdrop, there are at least two legally recognised mechanisms through which public access may be secured: (i) incorporating funding for open access publication within grants or cooperative agreements, enabling dissemination through established publisher channels; or (ii) structuring arrangements as procurements under which the government acquires rights in the work and determines how it is disseminated.

To see why procurement is the proper way to go, consider the defined purposes of the different kinds of funding agreements set forth in Part II above. For procurement contracts:

the principal purpose . . . is to acquire (by purchase, lease, or barter) property or services for the direct benefit or use of the United States Government.

For grants:

(1) the principal purpose of the relationship is to transfer a thing of value to the State or local government or other recipient to carry out a public purpose of support or stimulation authorized by a law of the United States instead of acquiring (by purchase, lease, or barter) property or services for the direct benefit or use of the

United States Government; and

(2) substantial involvement is not expected between the executive agency and the State, local government, or other recipient when carrying out the activity contemplated in the agreement.

For cooperative agreements, clause (1) is the same as that for grants, but clause 2 states:

(2) substantial involvement *is* expected between the executive agency and the State, local government, or other recipient when carrying out the activity contemplated in the agreement [emphasis added]

Procurement contracts are expressly the only avenue when the government wants to obtain property or services. This is effectively what the Nelson Memo sets up—government distribution of a scientific, technical, or medical publication. It is wrong to say that the Nelson Memo actually only wants to distribute federal funded research results. That is too clever by half. That was at least not risible under the Holdren Memo, especially where only the pre-print manuscript was to be made available. But again, where the final published version is sought for immediate free public distribution, this is distributing a publication and not just research results. The government is free to use a procurement contract with researchers and publishers. In fact, again, it could coordinate with and fund researchers and publishers to take advantage of the fine public access options the major publishers have already successfully deployed.

By contrast, a grant is required to “transfer a thing of value” *to* recipients; the government is not supposed to get the thing of value. While it is true that the recipient is supposed to “carry out a public purpose of support of stimulation,” the object of extramural research grants is *for the research to be performed*, not for publications to be produced. The public purpose is the research itself. It is understandable that it is a further or collateral public good for the research results to be widely disseminated. But again, that could be achieved through the Holdren Memo and earlier approaches. If the funding agencies want to construe the public purpose as the conjunctive “research AND publication,” then they need to fund both. This again would mean fully funding the research AND fully funding publication through the publishers’ open access platforms. The publishers, as third parties outside the agency-contractor relationship cannot be involuntarily dragooned into an un- or underfunded grant public purpose which also completely undermines the publishers’ business model and *raison d’etre*. Further, under the grant avenue, agencies are supposed to take a hands-off approach to what happens when the contractor carries out the grant activity (“substantial involvement is *not* expected” (emphasis added)). This means that the agencies should not be heavily

dictating what happens during and after the grant performance, including getting involved in publications that may or may not arise from the funding.

Finally, cooperative agreements have the same primary purpose (value transferred to the recipient for a public purpose), but in this avenue the agencies *can* be substantially involved. One approach for achieving agency involvement would be by way of cooperative agreements. Cooperative agreements are the primary way that partnerships between universities and nonprofit research institutions, on the one hand, and government agencies and government research labs, on the other, are structured. In such cases, the government agency or government lab employees are often co-authors of any publications arising from the research and so through either their WMFH relationship to the government agency or lab, or the status of government works as not copyrightable, the funding agencies have a legal pathway to making at least the manuscripts freely available. And indeed, much of this work is released as government reports or other government publications. To the extent the co-authors want to be published by a private industry publisher then that would be a negotiation between them and the publisher, likely also involving the government agency or lab, to determine whether there is a viable path forward mutually benefitting all the parties.

In sum, there are perfectly good legally compliant pathways for federal agencies to fund research and then control or have a say in how the results are published. This paper aims to demonstrate that the grant system is not such a pathway, despite the Nelson Memo targeting the grant system.

F. The OSTP Schemes Go Against 200 Years of Bipartisan Federal IP Policy and Practice

As can be gleaned from all the foregoing, both the Holdren Memo and the Nelson Memo encapsulate an approach to extramural research grant funding that has been emerging since the 2000s—pushed by IP minimalist activists—that is at odds with the long established bipartisan federal IP practice. To reiterate again, from the earliest days of the American Republic, Congress and the courts held the federal government to be in the position of essentially a private citizen when it came to use of IP rights of others. Congress appropriated substantial sums to buy inventions and patents from its own employees. The courts firmly rejected any version of Crown Rights. IP is an entitlement that must be granted recognized and respected once statutory conditions are met. While the government ultimately adopted a form of the shop rights system used by private employers, again this underscored how the federal government should be construed as simply a private person or employer for purposes of IP. For extramural research, the government also followed the approach of any other sponsor of research for the most part: in

some cases, it negotiated for title to the IP arising from the research; in others it only got a license to that IP. March-in Rights were the only development in the 20th century that was not like private sponsored research agreements, but then again, they were rarely used under the Kennedy and Nixon Patent Policies and have not been used since Bayh-Dole was enacted and implemented.

Taking down the publishing industry that is tangential to the research enterprise—a crucial part of the research ecosystem overall but not part of the research world per se—goes against over 200 years of Congressional legislation and policy, case law, and executive branch policy and rulemaking that was surprisingly uniform between both Democrats and Republicans. Lawmakers, presidents, and policymakers from both sides of the aisle agreed that extramural research was a good in and of itself and that private industry was required to bring the discoveries of such research to both practical application (in the form of commercial goods and services) and to publication in reputable journals of a free press that were independent respected imprimaturs of rigorous high-quality research.

The successes of the past seem to have made some recent revisionists too sanguine that such success will continue even if the very system that produced it is radically disrupted. They have also unfortunately succeeded in getting the ear of recent administrations who viewed making more things “free” as the “equitable” thing to do. But as set forth in the next Part, undefined “equitable” initiatives are no longer in vogue under the current administration and in fact could lead to harsh repercussions for the agencies and the research ecosystem.

G. The Nelson Memo is at Odds With the Current Administration; Agencies and Contractors Proceed at Their Peril

The Nelson Memo was issued in a particular policy context that has evolved since and its underlying assumptions may not align with current policy priorities. This makes it a perilous time for the research ecosystem. It is unclear whether the civilian employees at the various agencies such as NSF have fully realized the risk they undertake by pressing ahead with a DEI initiative. It is also unclear whether the universities realize that compliance with the Nelson Memo may expose them to increased policy scrutiny.

In light of this uncertainty, it may be appropriate for stakeholders across the research ecosystem, including publishers, to engage with OSTP to clarify the continuing status and intended implementation of the Nelson Memo.

IV. RELEVANT GOVERNMENT OPEN ACCESS POLICIES OF FOUR MAJOR R&D NATIONS (U.K., GERMANY, INDIA, JAPAN)

At this point, outside of the U.S., free and open access to the final version of record publication of government funded research that bypasses traditional academic publishers under anything like the Nelson Memo's "federal purpose license" is only aspirational. Four countries were briefly surveyed for this Report: the United Kingdom, Germany, India, and Japan.

Of the four countries surveyed, only Japan has formal policy language that could be construed to require deposit of the final version of record publication in open access repositories "immediately" after publication in an academic journal or monograph.¹⁷⁹ But even this is unclear as it may be that depositing a final accepted manuscript or similar pre-production version may satisfy the requirements. Further, there is a carve-out for where such deposit is "difficult," in which case the authors can note this to their institution.

India is pursuing its "ONOS" (one nation, one subscription) model, which so far is only a mechanism by which the government hopes to negotiate a single blanket license with each publisher that can be used by all the researchers and institutions in the country.¹⁸⁰ As an aspirational, ONOS seeks to facilitate development of Indian open access journals and move Indian researchers and institutions to publish in those. But there is no clear timeline or plan for that.

¹⁷⁹ Integrated Innovation Strategy Promotion Council, National Policy on Promoting Open Access to Publicly Funded Scholarly Publications and Scientific Data (provisional trans.) (Feb. 16, 2024) JAPAN; *see also* Shinichi AKAIKE, Ph.D., Japan's Open Science Policy (COAR Annual Conf., May 12, 2025).

¹⁸⁰ Information and Library Network Centre, ONOS: One Nation One Subscription (INDIA) available at <https://www.onos.gov.in/about>.

Germany's Bundesministerium für Bildung und Forschung (BMBF, "Federal Ministry of Education and Research") has begun inserting an open access clause in its research funding agreements, but the mechanism set out by it simply requires the researcher/institution to publish in an open access format, e.g., through those established by the major academic publishers, and provides for funding to cover publishing costs from the BMBF.¹⁸¹

Finally, the United Kingdom Research and Innovation public body also has a "mandatory" open access requirement for government funded research publications, but this can be satisfied by either publishing in an open access journal or platform that provides immediate free access to the version of record or publishing in a subscription journal and immediately depositing the accepted manuscript in an open access repository.¹⁸²

CONCLUSION

The U.S. federal government policy directives in 2013 and 2022 have created unnecessary issues and confusion for the scientific, technical, and medical research community without clear benefits to the public. While the community, including publishers, adapted well enough to the 2013 Holdren Memo policies, the 2022 Nelson Memo undermines the entire business model of the publishers. In doing so, it will also fundamentally disrupt the research community. It raises significant questions as to how professional publishers can keep performing their role when the public can simply access the publishers' entire product for free from institutional repositories. But a belief that the research community can do without professional publishers may underestimate the practical challenges associated with such an approach. One need only look at how hard it is to find good music, videos, or text in the tsunami of free content washing over the open internet to see how the dream of a "democratized" industry-free research environment will instead soon become the nightmare of sifting through endless drudgery and misinformation hoping to find the few beacons of shining truth.

To be clear, the momentum of past behavior and desire for authoritative sourcing may keep some institutions and researchers paying for direct access to the publishing industry's core product for a while longer. But the lure of "free" will almost certainly be too great, combined with the substitution of university and research institution certification of authenticity of copies, to keep enough customers paying for the industry's product over the long term. When the

¹⁸¹ Federal Ministry of Education and Research, Open Access in Germany: Joint Guidelines of the Federal Government and the Länder (Jun. 2023) (GERMANY)

¹⁸² UK Research and Innovation, UKRI Open Access Policy Ver. 1.8 (Feb. 10, 2025) (United Kingdom).

revenues drop too far, the industry will fade away (as have other industries over time) and suddenly the research community will be faced with either creating and paying for its own sourcing, selection, peer review, editing, and promotion services or finding itself sifting through an endless stream of direct-to-internet unverified and unedited material.

Scientific, technical, and medical research is too important to be left to the same fate as user generated content on social media platforms. These developments introduce material risks for the research and publishing ecosystem, including potential impacts on sustainability, quality assurance and dissemination infrastructure. Therefore, they warrant careful legal and policy consideration.