The Enactment of Bayh–Dole

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ABSTRACT. The Bayh–Dole Act of 1980 reversed 35 years of public policy and gave universities and small businesses the unfettered right to own inventions that resulted from federally funded research. The Act was opposed by the Carter administration, which had a different view of how to utilize the results of federally funded research to drive economic development. It is not widely appreciated that the bill had died in the regular sessions of the 96th Congress and was only passed into law in a lame duck session necessitated to pass the budget. Only a magnanimous gesture of respect for Senator Birch Bayh, who had been defeated in the 1980 election, on the part of Senator Russell Long allowed the bill to receive the unanimous consent needed to pass a bill in lame duck session. This article lays out the roles of the key congressional staffers who forged this historic compromise and the last minute maneuvers needed to obtain President Carter's signature.

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A recent article in the *Economist* (2002) said:

> Possibly the most inspired piece of legislation to be enacted in America over the past half-century was the Bayh–Dole act of 1980.

It is unlikely that anyone in the technology transfer community would dispute this statement, and foreign countries are now adopting the Bayh–Dole model, most recently Germany and, in the United Kingdom, Cambridge University, because they want to replicate the high technology-led economic development that Bayh–Dole is generally credited with having helped create. In the United States, however, a small number within academia and on Capitol Hill have expressed concerns about some of the consequences of Bayh–Dole, discounted its impact and advocated reforms of some of its provisions (Nelson et al., 2001).

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Given Bayh–Dole's success, it is surprising that there is not more general awareness of how fragile the coalition was that passed Bayh–Dole and indeed that it almost didn't get passed at all. Bayh–Dole was passed in a lame duck session of Congress thanks to an incredible example of Senatorial courtesy and barely survived a pocket veto by Jimmy Carter, who signed it into law on the last day possible.

Joseph Allen, currently the President of the National Technology Transfer Center in Wheeling, West Virginia was at the center of the drama. In 1974, Joe was 24 years old and got his first job on Capitol Hill on the staff of Senator John Tunney (D., CA). Tunney was defeated in the 1976 election and Senator Birch Bayh (D., IN) took over Tunney's Subcommittee of the Senate Judiciary Committee. Allen joined Bayh's Subcommittee staff.

Coming out of World War II, the United States was unchallenged in its political and economic leadership of the free world. However, by the end of the 1970s it was clear that U.S. industry had lost its international competitiveness to Europe and, particularly, to Japan. This process had started with the success of the U.S. programs to rebuild its Allies and former enemies and was completed by the impact of the oil shocks of the 1960s and 1970s on an economy dependent on cheap domestic energy. Examples of the loss of competitiveness abounded, from the loss of U.S. leadership in both mature industries, such as automobiles and televisions, and emerging industries, such as memory chips, and the creation of new industries dominated by Japanese companies but based on American and European innovations, such as VCR's and compact discs.

Stock market indices vividly quantify the swings in relative economic power. On August 6, 1957,

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the Dow Jones Industrial Average closed at 501, while the Nikkei Stock Average of 225 major Tokyo stocks closed at 496. That was the last time the Dow closed ahead of the Nikkei for almost 50 years. On December 29, 1989, the Nikkei peaked at 38,916, an astonishing fourteen times higher than the Dow, which closed at 2,753 that day. Not until mid 2002 would the Dow again close higher than the Nikkei.

As the 1970s came to a close therefore, the U.S. Congress was struggling to find ways to rejuvenate the U.S. economy. Three philosophies were struggling for supremacy and bore an uncanny resemblance to some of the opposing philosophies that had fought for supremacy in the newly independent America. A microcosm of this debate was reflected in the discussion over how best to manage more than $75 billion a year invested in Government sponsored R&D:

- The first philosophy was a Hamiltonian belief that the solution lay with a strong central government, which should take charge and actively manage these resources. In the 1970s, this philosophy was advocated by Senator Adlai Stevenson (D., IL) and the Carter Administration.
- The second philosophy was a Jeffersonian belief that the solution lay with the individual and that the best thing government could do to provide incentives for success was get out of the way of these individuals. This mantle was borne by Senators Birch Bayh (D., IN) and Robert Dole (R., KS).
- The third philosophy, in some ways in the middle of the first two but in some ways at the opposite apex of a triangle from them, held that government could only hurt and that it should make sure that everyone benefited financially from government's efforts; the flag bearer of this philosophy was the populist Senator Russell Long (D., LA).

The seemingly arcane issue of government patent policy became a battlefield for these competing philosophies as economic stagnation pushed this issue to the fore. Starting after World War II, the government had been taking an increasingly strident position that any inventions resulting from federally funded research belonged to the government and would only be non-exclusively licensed—the "favor everyone one" philosophy. Realizing that the policy nullified economic incentives for commercial development, Presidents Kennedy, Johnson and Nixon issued limited exceptions to this rule through Presidential policy memoranda. However, in quick succession, the federal government sued Stokely Van Camp in 1965 to force the company to abandon the patents filed on Gatorade by Dr. Robert Cade at the University of Florida and then sued the University of Wisconsin to obtain title to the anti-cancer drug, 5-fluororacil, after a secretarial coding error had attributed the purchase of $120 worth of reagents to a federal grant in a major project otherwise totally funded by a drug company.

Some people had started to realize that this idealistic approach was inhibiting the development of promising inventions simply because the government owned the rights. Norman Latker, Deputy General Counsel at the Department of Health Education and Welfare had therefore created Institutional Patent Agreements that allowed universities to take title to inventions that resulted from their work under federally funded grants. However, these agreements were totally at the government's discretion and only applied to grants from HEW.

The momentum for a fundamental legal overhaul of federal patent policy started in Bayh's home state of Indiana. Purdue had made several important discoveries under grants from the Department of Energy, which did not issue Institutional Patent Agreements. Ralph Davis, the Technology Transfer Manager at Purdue complained to Bayh, who asked Allen to investigate. Allen met with Howard Bremer, Ralph Davis and Norm Latker and confirmed the problem. Coincidently, Barry Leshowitz, who was on leave from the University of Arizona as an intern on the staff of Senator Robert Dole (R., KS) sensitized Dole to the fact that important discoveries were being bottled up at the agencies (Etzkovitz, 2002). Agreeing to collaborate, Bayh and Dole directed their staffs to develop a bill that, because of Senatorial courtesy, was called the Dole–Bayh Bill in the 95th Congress with the understanding that during re-introduction in the 96th Congress it would be the Bayh–Dole bill.