Since the 1980s, Congress has enacted a series of laws to establish and provide technology transfer guidelines, mechanisms, and incentives for Government Owned and Government Operated (GOGO, e.g., The Army Research Laboratory) and Government Owned and Contractor Operated (GOCO, e.g., Sandia National Laboratory) federal laboratories participating in technology transfer activities. The following text summarizes major legislation and executive orders that directly focus on technology transfer activities.

**Bayh-Dole Act of 1980**

This Act permits universities, small businesses, and nonprofit organizations to obtain title to inventions developed with federal funds. However, this policy also allows the federal agency to retain an irrevocable, paid-up license to use the invention. It permits GOGO laboratories to grant exclusive patent licenses to industry.

**Stevenson-Wydler Technology Innovation Act of 1980**

This Act is the first of an ongoing series of laws that define technology transfer and encourage federal laboratories to engage in cooperative research with state and local governments, academia, nonprofit organizations, or private industry. Its provisions also establish and define the basic activities of an Office of Research and Technology Applications at each federal laboratory and set aside a small percentage of each laboratory’s budget to fund technology transfer activities.
**Federal Technology Transfer Act of 1986**

This Act amends the Stevenson-Wydler Act and codifies a number of changes that impact GOGOs. It requires scientists and engineers to consider technology transfer an individual responsibility and also requires that technology transfer efforts be considered in their performance evaluations. It also establishes the guidelines for inventors from GOGOs to receive monetary awards from royalty-bearing licensing agreements. GOGOs are given the authority to enter into Cooperative Research and Development Agreements (CRADAs); to license inventions that might result from such arrangements; to exchange laboratory personnel, services, and equipment with research partners; and to waive rights to lab inventions and intellectual property. Additionally, the Act allows for federal employees, both current and former, to participate in commercial efforts if there is no conflict of interest. It established the charter for the Federal Laboratory Consortium for Technology Transfer. The Consortium is responsible for a variety of activities including providing training courses and assistance for technology transfer programs.

**National Technology Transfer and Advancement Act of 1995**

This Act amends the Stevenson-Wydler Act and ensures that federal laboratories grant collaborating parties sufficient intellectual property rights under CRADAs for prompt commercialization. It also provides guidelines for licensing and ownership of inventions resulting from joint research performed under a CRADA. Additionally, the law raises the financial rewards for federal employees whose invention results in a royalty-bearing agreement to the annual limit payment of $150,000.

**Executive Order 12591 of 1987**

This Executive Order assures that federal laboratories can enter into CRADAs with other federal laboratories, state and local governments, universities, and the private sector. It also promotes commercialization of federally funded inventions by ensuring laboratories grant to contractors the title to patents developed with federal funds, as long as the government retains a royalty-free license for government use.
Federal technology transfer

Technology Transfer Commercialization Act of 2000

This Act promotes the benefits of a CRADA and expands its licensing authority to permit federal laboratories to include preexisting government inventions to make CRADAs more attractive to private industry. It also mandates licensees of inventions to provide a development and/or marketing plan for the requested invention and to commit to achieving practical application in a reasonable period of time. It requires federal agencies to provide a 15-day public notice before granting exclusive or partially exclusive licenses to non-CRADA created or made inventions.

America COMPETES Act of 2007

This Act authorizes programs in multiple agencies focused on the overarching themes of increasing funding for basic research; strengthening teacher capabilities and encouraging student opportunities in science, technology, engineering and mathematics (STEM) educational programs; enhancing support for higher risk, higher reward research; and supporting early career research programs for young investigators. The primary impact on technology transfer includes the elimination of the Department of Commerce Office of Technology Administration and the associated Under Secretary, which had the principal reporting and analytical responsibilities for technology transfer activities government-wide (these duties were reassigned within the Department of Commerce).

References

legislation highlights

America COMPETES Reauthorization Act of 2010

This Act reauthorizes selected provisions of the 2007 America COMPETES Act. It increases funding for physical sciences and engineering R&D and authorizes certain federal STEM education programs. Several provisions in the Act directly call out technology transfer. It authorizes federal agencies to award competitive prizes to stimulate innovation, formally establishes an office within the Department of Commerce to develop policies supporting commercialization of federally funded R&D, and establishes a regional innovation program. Federal labs are eligible for funding under this provision.


This Memorandum directs each executive department and agency that conducts R&D to develop plans to establish performance goals to increase the number and pace of effective technology transfer and commercialization activities. Additionally, agencies are required to streamline their technology transfer and commercialization processes and to facilitate commercialization through local and regional partnerships with nonfederal entities, including private firms, research organizations, and nonprofit entities.

Leahy-Smith America Invents Act of 2011

This Act implements a first-inventor-to-file standard for patent approval, creates a postgrant review system to weed out bad patents, and helps the Patent and Trademark Office address the backlog of patent applications. For more information, see page 31.