

# **Lessons Learned from Three Decades of University IP / Technology Transfer**

## **Perspectives from the United States of America**

### **Regional High-Level Summit for University Presidents and Senior Policy Makers on EIE**

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Dr. Ashley J. Stevens  
President

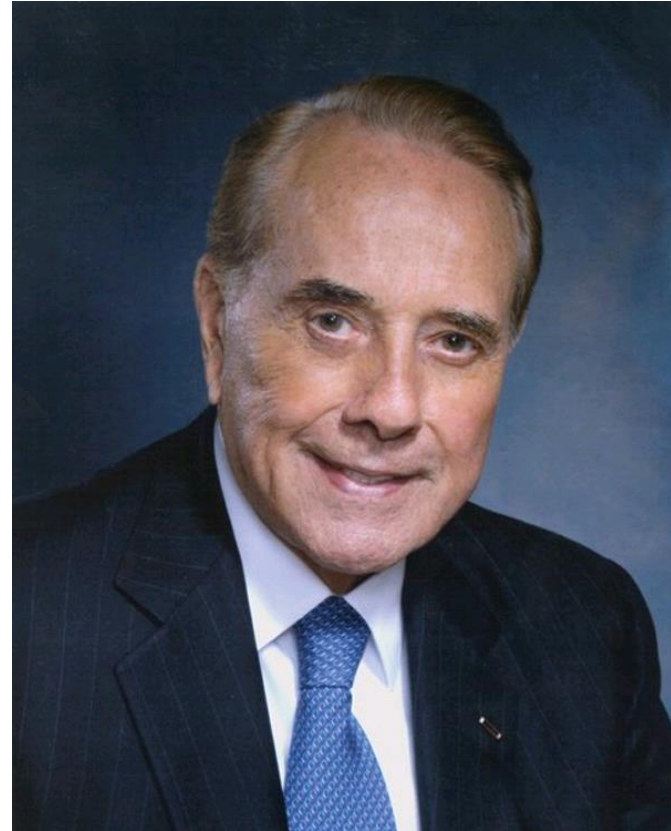


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# The Bayh-Dole Act

- ❑ PL 96-517 – The Patent and Trademark Amendments Act of 1980
- ❑ Main components:
  - ❑ Universities could elect to retain title to the results of Federally funded research
  - ❑ Universities were required to share proceeds with inventors
  - ❑ Most restrictions on licensing terms were removed
    - ❑ Can't assign (sell) the patent, only license it
  - ❑ US manufacture required for products to be sold in the US
  - ❑ Small business preference
  - ❑ Non-exclusive license to US Government for its own use
  - ❑ Ability to grant compulsory license in the public interest
- ❑ No funding added or removed

## Early Impact

- ❑ Expansion of academic licensing offices
  - ❑ Initially staffed by patent attorneys and research administrators
  - ❑ Second wave was people with small company business experience
    - ❑ The only reason to protect technology is in order to transfer it!
- ❑ Expansion of academic patent applications and issuances
- ❑ Substantial research collaborations between companies and universities to access new technologies
- ❑ Substantial growth in academic royalty income about a decade later
- ❑ Emergence of high technology clusters anchored by major research universities

# Key Success Factors of Bayh-Dole

- ❑ It established the “Institutional Ownership” model of technology management
- ❑ The government established very few impactful rules:
  - ❑ Share with inventors
  - ❑ Preference for small business
  - ❑ U.S. manufacturing
  - ❑ License not assign
- ❑ And then got out of the way
  - ❑ Virtually no changes in the 40 years since
    - ❑ Allowed a solid body of best practices to emerge

# Lessons Learned

- ❑ A very simple Act
- ❑ The government was completely unobtrusive
  - ❑ Turned responsibility completely back to the universities
  - ❑ March-in was the only possibility for the government getting involved
    - ❑ Has never been exercised
- ❑ U.S. probably not a good model for other countries
  - ❑ Lack of funding was a major **POSITIVE**
    - ❑ If no funding, Congress didn't need to periodically reauthorize
      - ❑ Which would have given them an opportunity to meddle
  - ❑ U.S. universities are rich
    - ❑ Tuition
    - ❑ Philanthropy
    - ❑ Indirect costs on grants
  - ❑ Could afford to fund their TTO's

# What Else Turned out to be Important?

- ❑ The importance of being fairly compensated for the value of our IP
  - ❑ Many companies thought it should be free
    - ❑ “We paid for it with our taxes”
- ❑ The importance of being willing, **as a last resort**, to sue to enforce our IP
  - ❑ That said, revenue generation is the last reason you should do this;
- ❑ The importance of incentives for faculty
  - ❑ Revenue share
    - ❑ Ability to found and have equity in companies
  - ❑ “One day per week” consulting policies



# What Else Turned out to be Important?

- ❑ The importance of Col policies
  - ❑ There were some ugly stories in the 1980's and 90's
  - ❑ We are incenting the profit motive in a non-profit world
- ❑ The importance of creating a community of practitioners
  - ❑ AUTM
  - ❑ Training
  - ❑ Metrics, both hard (data) and soft (stories).

# What Did We Get Wrong?

- ❑ Not much
  - ❑ Small business preference
    - ❑ Never been tested what it means
    - ❑ Small companies turn out to be our natural constituency
      - ❑ Academic technologies generally too embryonic and untested and unvalidated for most large companies
      - ❑ Like a small company to de-risk
        - ❑ Then pay much more to buy the company
  - ❑ March-in
    - ❑ Legitimate concern about unsophisticated university licensing practices in 1980
      - ❑ Universities quickly became very sophisticated licensors
      - ❑ Due diligence clauses addressed the issue of “putting on the shelf”
    - ❑ Activists now trying to use it to control drug prices
      - ❑ Not what it was intended for

# What Could We Have Done Better?

- ❑ Establish much better government-university dialogue
  - ❑ Despite iEdison reporting, communications with Government were non-existent until Walter Copan become Director of NIST
  - ❑ iEdison system for reporting to government on Bayh-Dole is poor
- ❑ Better definition of the government use license
  - ❑ Procurement side of Government has never really understood these rights or how to use them
- ❑ Better procedures for U.S. Manufacture waivers
- ❑ Better procedure to give inventions back to inventors
- ❑ Translational research funding
  - ❑ A ying of bullet #1 above's yang?);
- ❑ Adequate funding for IP creation
  - ❑ Another “ying”,  
Particularly for universities in emerging economies?

**Thank you for listening**

**Questions?**

**astevens@bu.edu**

