

STATEMENT OF SENATOR BIRCH BAYH

UNIVERSITY AND SMALL BUSINESS PATENT PROCEDURES ACT

PRESS CONFERENCE WITH SENATOR BOB DOLE

September 13, 1978

*Matheson  
A. Overman  
Case + Holfield*

*- Hatch + Dole (?)*

Thank you very much for coming here this morning. As you know, Senator Dole and I will be introducing the University and Small Business Patent Procedures Act today. This bill is directed at correcting part of a situation that I find very disturbing: America seems to be falling behind in the development of new technology. This trend, which is documented by a number of statistics, strikes at the heart of our traditional American economic strength -- our inventiveness and ability to adapt to a changing world.

A few statistics make the problem very clear:

- 1 the number of patents issued to American inventors has declined year by year since 1971. During that same time the number of United States patents granted to persons other than Americans increased.
- 2 \*during the past decade the rate of growth of productivity in the United States has been only half of what it was in the previous twenty years. Productivity is partly a function of new technology. In contrast to this American trend, the growth rates of productivity in a number of European countries and Japan have increased.
- 3 \*the worsening position of the United States balance of trade is a matter of great concern to us all. Anyone who has watched the desperate struggles for survival of the American steel industry, the American colored television industry, and others, as I have, is very aware that our balance of trade situation is not due to the cost of imported oil alone, but also is due to increasing imports of high-technology manufactured goods.

[These symptoms of an American technology slump demand our careful attention. Our policies concerning technology need to be studied carefully so that all dimensions of this problem can be understood and addressed with legislation or new policies where necessary. At this time] I don't think we know all dimensions of the problem, and I, for one, certainly do not have all the answers. But at least in one area I think the problem with our technology policy is clear and a legislative solution is necessary. That is the policy toward new technology arising from federally sponsored research by our nation's universities and small businesses.

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Beside ~~me are two charts~~ that show the failure of our policy on technology resulting from federally funded research and development. Copies of both charts are <sup>13</sup> contained in the materials that we have distributed this morning. <sup>PACKET</sup> The bar chart shows that invention disclosures and patents resulting from federally funded research and development decreased steadily and dramatically from 1970 to 1975. I understand that decreasing trend has continued to date. The crosshatched bars show the amount of federal research development expenditures. The white bars show the number of invention disclosures which have decreased steadily. The black bars show the number of patents resulting from federally funded research and development, which also have decreased steadily. I have no doubt that one major reason for this decline is the fact that patents have been very difficult to obtain under our existing federal policy. The incentive for disclosure of inventions is reduced if the inventors conclude the commercialization of the invention will be impossible because no patent will be issued.

*Before us* - 3 -

The ~~second~~ chart, shows that the government has not been successful in the commercialization of patents which it owns under our existing policy. The top line shows a steady increase from 1963 to 1975 (which again has continued to date) in the number of patents held by the government and available for licensing. At the same time, the number of patents licensed has remained virtually the same, creating a widening gap of dormant technology in the hands of the federal government. The layover on this chart shows what we might have expected in terms of licensed technology available to the public if those patents had been held by universities instead of the United States government. The experience of universities has been that approximately one-third of its patents available for licensing are successfully licensed and brought to the market place and the people.

The bill that Senator Dole and I will introduce today will allow universities, nonprofit organizations and small businesses to obtain limited patent protection on discoveries they have made under government-supported research, if they spend additional private resources necessary to bring their discoveries to the public. Our universities and small businesses have a proven capacity to develop the sort of bold new inventions that our country needs to maintain its leadership in the world economic community. This bill provides a careful balancing of the rights of the federal government to use for itself and the public good inventions arising out of research that the federal government helps to support, and the equally important rights of the inventor and the public to see that the inventions receive their full potential in the market place and reach the people they may benefit. Our experience has shown that unless inventors, universities, small businesses, and the private

sector generally are given sufficient incentives to work together and bring inventions to the public, new technology is likely to languish.

President Hansen of Purdue University, Vice President Jones of the Massachusetts Institute of Technology and the other distinguished inventors and scientists who have joined us here today can discuss with you specific examples as well as disturbing trends concerning new technology that has been delayed or frustrated and has not reached the American people because of the failures of our current patent policy regarding inventions arising from federal research. I should mention that I am personally very much aware of the problem as it has affected at least one new development at Purdue University, that is, the development of a new process to convert cellulose which can be obtained from crop residues, garbage, and a number of other sources into a new source of alcohol fuel. With much great effort by its inventor, George Tsao, others at Purdue University, this United States Senator and a number of others, it still took almost a year to reach the first step of licensing that might result in bringing this important technological breakthrough to the level of commercial availability. The price paid by the American people was a one-year delay in making available to them a potentially important new source of energy from domestic renewable resources. Other inventions have been brought to my attention in the fields of medicine, agriculture, energy and elsewhere which might have saved lives and suffering if we had in effect the kind of patent procedure proposed in the bill that Senator Dole and I are introducing today.

**CANCER DRUG REACTION - DR. SALMON/HAMBURGER**  
**BURN TREATMENT - DR. FOX - COLUMBIA U. - 602**

I would like for you now to hear the comments of President Arthur G.

Hansen of Purdue University and Vice President Thomas L. Jones of MIT, and

**HECTOR DE LUCA - CHR DEPT BIOCHEM. U. OF WIS.**

then we and the scientists and inventors present will be happy to respond to

your questions.

**CHARLES L. FOX, JR. -**  
**BURNS - 6020**  
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**INTRO.      OTHERS**

## QUESTIONS AND ANSWERS

### UNIVERSITY AND SMALL BUSINESS PATENT PROCEDURES ACT

1. If the government is helping fund research why shouldn't it retain the patent rights for the people?

ANSWER: The cost of taking an invention out of the laboratory stage and having it ready for the market is estimated to be 10 times as much as the cost of the actual invention. The Federal government is rarely able to make this investment so that many promising inventions are gathering dust on some agencies' shelves rather than making any impact commercially and benefiting the public. This bill is designed to allow universities, small businesses, and non-profit organizations who are willing and able to bring these inventions into the marketplace where they can benefit the public, to retain sufficient patent rights to justify this investment.

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Additionally, this bill would allow the funding agency to retain the right to use the invention and gives the agency the right to require more licensing of the invention if it is felt that this is needed to meet health, safety, or competitive requirements. The bill also states that if a certain level of success is met by the invention within 10 years, that payment must be made back to the government until the amount of research money that the government has invested in the invention has been equalled.

2. Can the government retain patent rights to any inventions under this bill?

ANSWER: Yes, if the invention is made under a contract for operation of a government owned research or production facility, might cause the disclosure of classified information or imperil national security, or if granting patent rights would not be in the public interest patent rights may be retained by the funding agency on behalf of the government. Additionally, if the contractor violates the requirements in the bill for filing reports on the invention, or chooses not to file for patent rights, the agency may do so.

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3. How long can licenses be granted under this bill and to whom?

ANSWER: The bill provides that licenses may be given out by the patent holder for a period of 8 years from the date that the license was granted (excepting the time that might have been spent before a regulatory agency that was required to market the invention) or 5 years from the date of the first commercial sale, whichever comes first.

Licenses must be approved by the funding agency before they can be given out. If the agency feels that it is necessary, it can require more licensing if commercialization is not proceeding quickly enough or if the licensing is felt to be anti-competitive.

4. What about patents that the government presently controls?

ANSWER: The bill provides that the Administrator of General Services can write regulations that give first preference in licensing government held patents to small businesses to allow for licensing of patents now being held by the government. The Commerce Department is authorized to coordinate this program and receive any fees or royalties due to the government from this licensing.

OTHERS ?

5. Can foreign businesses qualify for these licensing provisions?

ANSWER: Under the bill foreign owned or controlled businesses are not allowed to participate unless the agency determines that there is no domestic business that can develop the invention.

6. How does the payback provision to the government work?

ANSWER: Section 204 provides that if the patent holder receives \$250,000.00 in after tax profits from licensing any subject invention during a ten-year period, or receives in excess of \$2,000,000.00 on the sales of products embodying or manufactured by a process employing the subject invention within the 10 year period, the government shall be entitled to collect up to 50% of all net income above these figures until such time as the amount of government research money has been repaid.

after tax  
for universities?

7. What if the licensing period is too short and needs to be extended?



ANSWER: Under the bill any request to extend the period of exclusive or partially exclusive licensing must be approved by the agency.

8. Why are large businesses not eligible to participate in the program?

ANSWER: In many instances large businesses have greater access to financing for research and are able to finance their own research whereas this is much more difficult for universities, small businesses, and non-profit organizations. If large businesses wish to accept federal research money, they may do so, but they then will forego their rights to patent any inventions arising from the research. Additionally, the types of research done at universities in particular, historically has tended to be more experimental and innovative and therefore needing more money to be developed than that conducted by other sectors of the research community. Large businesses would be eligible to apply for licenses to develop and market patents arising from this program subject to agency approval.

9. What groups have indicated their support of this bill?

ANSWER: The bill is being supported by members of the Society of University Patent Administrators, the Association of American Medical Colleges, and the Institute of Electrical and Electronic Engineers. Additionally, members of the American Patent Law Association have indicated that they favor this

legislation but the Association has not met to endorse this particular bill.

10. What percentage of government patents are presently being licensed and how does this compare with the rate of university licensing?

ANSWER: The government has been estimated to be licensing less than 5% of the patents that it holds. This contrasts with a licensing rate of 33% by universities. It should also be pointed out that under the present policy of retaining patent rights by the government on most inventions arising out of federally supported research, ~~that~~ fewer and fewer inventions are being reported each year.