**Statement of Senator Birch Bayh**

**On the 30th Anniversary of the Bayh-Dole Act**

I'm delighted to be here today to say “Happy Birthday” to the Bayh-Dole Act on its 30th anniversary.  It’s great to look around the room and see so many friends who worked so hard to make this day possible along with those who appreciate what the law means to our country, and indeed, the world.

Bayh-Dole teaches several lessons worth recalling:

* A handful of motivated citizens really can change the course of a nation;
* An idea whose time has come can bridge the partisan divide; and
* Each generation must cherish and protect the entrepreneurial spirit that built America for it is our greatest national asset, but can also be lost if neglected or discouraged.

The story of Bayh-Dole began one day in 1978 when I received a call from Ralph Davis who ran the technology transfer office at Purdue University. When Ralph told me that potentially important discoveries made on campus were being prevented from fully benefiting the taxpayers supporting the research, he had my full attention. When he said that Purdue’s experience was shared by universities and small companies across the nation, I told him to let me know what needed to be done. He did, and set the wheels in motion for what was to become the University and Small Business Patent Procedures Act of 1980, commonly known as Bayh-Dole.

So we might say that Bayh-Dole is another gift of the Boilermakers to a grateful nation!

Thus, Bayh-Dole was created because of a glaring problem-- billions of hard earned tax dollars invested annually in government R&D were being squandered by ineffective government patent policies.  If this research cannot be taken out of the labs and turned into products, the public is being short changed. Even so, it was a long, tough road to travel, and we only succeeded by the smallest of margins. Turning around long standing government policies, no matter how ineffective, is never easy.

Bayh-Dole reflects the American spirit. It shows that innovation thrives when we honor the intellectual property system the Founding Fathers handed down to us. Bayh-Dole allows the entrepreneurial spirit in the public and private sectors to join together turning early stage research into products benefiting our own citizens-- and indeed, those around the world.

It is appropriate that government funds the long range research which simply cannot be performed by industry. But commercial development must be done by the private sector. This is a very arduous, expensive endeavor. It is best accomplished when those making the inventions are trusted to know best how their discoveries should be managed.

Some then and now scoffed at such a concept as hopelessly naive. They find the siren call of centralized government management irresistible. Perhaps this is because they fancy themselves as the central managers. But bitter experience proves that a “Washington knows best attitude” when it comes to innovation leads to disaster. Unfortunately, our critics never seem to learn this lesson.

So the burden is on us to constantly educate policy makers how valuable Bayh-Dole is to the continued health and wealth of the United States. We must show that the Bayh-Dole system is delicately balanced. That the law remains unchanged over 30 years is a testimony to its careful craftsmanship. Anyone urging that it be amended must face a daunting burden of proof supported by facts, not emotion, before they are taken seriously.

And in this debate, you must not underestimate the impact you can make. Many always moan that citizens really can't change government.  Yet Bayh-Dole shows that this is simply not true. That doesn't mean that the process is easy or quick-- but what in life that's worthwhile ever is? A handful of determined men and women made the law a reality and have preserved it for 30 years. Later today we will honor several key people who worked so hard behind the scenes to pass and protect Bayh-Dole.  Now we need new hands to help carry the banner that they have borne for so long.

I also want to say a word about my friend and colleague Senator Bob Dole who unfortunately could not be with us today. Bob is a true representative of "The Greatest Generation" that literally saved the world, and then came home to build the most prosperous nation in history.

In 1942, Bob joined the army and was assigned to the Italian front.  Today we don't hear much about the vicious fighting in Italy. It was not glamorous.  The campaign consisted of pushing the German's off a seemingly endless series of fortified mountains at great personal cost. The farther we advanced, the tougher it became.  As a 22 year old Second Lieutenant, Bob was doing what Second Lieutenant's do-- leading from the front.  Just weeks before the surrender, Bob Dole was hit by fire from a German machine gun.  He was hurt so badly that another GI gave him the largest dose of morphine possible, then wrote "M" on Bob’s forehead in his own blood, because if following squads gave Lt. Dole another shot he would die.  Bob lay on the battlefield for nine hours before being evacuated.  He remained hospitalized for more than three years.  Upon recovery he studied law and dedicated his life to public service.

It was an honor to serve with Senator Dole for so many years. He and I were on different sides of the aisle, and fought hard for our beliefs.  Yet, we developed a deep respect for each other. We shared a common goal: that ground breaking inventions would no longer waste away on the shelves of government, and teamed up to make our vision a reality.  It was only because our political partnership effectively bridged the partisan divide that Bayh-Dole was passed. We were able to show our colleagues that our bill reflected fundamental concepts upon which both the right and left could agree. And even then, we barely made it across the finish line before time ran out.

The basis of Bayh-Dole is believing that American innovation flourishes best when the incentives and protections of the patent system are allowed to operate as intended.  In this belief, we shared good company. Abraham Lincoln said there were three great events that advanced humanity:

* The discovery of America
* The invention of the printing press, and
* **the development of the patent system**

If you look at the top of the Department of Commerce facing the White House you can read Lincoln's words:  *The patent system adds the fuel of interest to the fires of genius.* And he knew what he was talking about. Abe Lincoln is the only president who owned a patented invention.

Unfortunately, before Bayh-Dole his wise counsel went unheeded in federal R&D policies.  And America paid a great price.  
  
As Bob and I looked at what was being generated from the billions of dollars spent annually on government supported research we found a very meager return. There were more than 20 federal patent policies then in place across the various agencies, but all were based on the premise that inventions made with government support should be taken away from the inventing organization and licensed non-exclusively by the bureaucracy.  We asked the Comptroller General how this system was working. He reported that there were 28,000 inventions caught in this web with less than 5% ever licensed for development.

*We also found that not a single new drug has been commercialized when the government owned the patent.*  
The reason was readily apparent. When government takes inventions away from the creators, it extinguishes the fuel of interest the patent system was intended to create.  As inventor Frederick Cottrell said:" *A number of meritorious patents given to the public absolutely free have never come upon the market chiefly* ***because*** **what is everyone's business is nobody's business.**"  
  
These policies effectively disconnected university and federal laboratory research from the U.S. economy. They caused our most innovative small companies to shun government research because accepting federal dollars meant giving up any hope of developing innovative products they might invent.    
  
We also saw the United States' traditional lead in technology fading away across the board. Some said we should be resigned to being a service based economy since the U.S. simply could not create competitive products any longer. Beltway pundits confidently predicted that centralized economic planning like that of “Japan, Inc.” was the new model we should adopt. Such ideas always find receptive ears in Washington.

But Bayh-Dole offered a different way out of the swamp.

We chose to listen to Lincoln, not those then in fashion. Bayh-Dole introduced patent incentives to federal research.  Our bill was based on the premise that government should do what it does best-- fund basic and long range research that industry simply cannot afford to do, and then rely on those making inventions to manage them in the public interest by providing a few simple rules.

We recognized that industry is accepting tremendous risk developing early stage university and federal laboratory inventions, and must be protected by strong patent licensing agreements.  We believed that the best approach was relying on those actually making the discoveries to know best how these deals should be structured.   We said the universities must share royalties with their inventors so all would benefit from successful partnerships.

And we did not create any new bureaucracy.  
  
At the time, many considered our approach lacking in sophistication and nuance. Some still do.  However, the results speak for themselves.  The **Economist Technology Quarterly** said it best:  
  
 *Possibly the most inspired piece of legislation to be enacted in America over the past half- century was the Bayh-Dole Act of 1980... More than anything, this single policy helped reverse America's precipitous slide into industrial irrelevance.*  
  
And such claims are not mere jargon; the facts bear them out.  Here’s just a sample of what Bayh-Dole has done:

* Created more than 6,500 new companies with about 600 created last year in the midst of a serious economic recession*, or an average of about two new companies every working day of the year;*
* Created more than 5,000 new products;
* Spawned more than 130 new drugs, vaccines or devices protecting public health around the world;
* Helped create entire new industries like biotechnology;
* Contributed at least $187 **billion** to the US Gross National Product while creating a minimum of 279,000 new jobs in just a nine year period, and
* A new report by the National Academy of Sciences found that the critics were wrong when they claimed that Bayh-Dole would undermine traditional academic norms.

Perhaps it’s only appropriate to add here how ironic it is that some now look down their noses at university technology transfer officials given the contribution they have made to the nation.

Perhaps the best evidence of our success is that other nations are rapidly adopting Bayh-Dole laws of their own to better compete with us. They rightly view Bayh-Dole as a proven best practice. Their seriousness of purpose was demonstrated to me when I spent my birthday in Beijing a few years ago being quizzed by Chinese leaders why our system worked so well. It seems sometimes that the law is better appreciated abroad than here at home.

Let me conclude with a few words of warning. We never seem to run short of ivory tower theorists who fault Bayh-Dole and urge us to adopt their latest pipe dreams instead.  What they lack in practical experience and solid data they make up in emotion and rhetoric. As General Grant observed about the arm chair experts constantly sniping at him while he was slowly but surely bringing the Civil War to a successful end:

“*The most confident critics are generally those who know the least about the matter criticized.*”

Our critics are now urging that government be empowered to impose licensing restrictions on universities to meet fancied dangers.  They claim that some fields of technology should even be exempted from Bayh-Dole because patenting should be discouraged. They criticize the university technology transfer model as hopelessly out of date. They would take us back to the failed policies of the past. We have been down this road before and know where it leads-- and it's not a good place. So it is up to us to constantly remind policy makers of our prior hard learned lessons, or they may be repeated.  
  
However, a serious problem was identified by the National Academy report. The oversight authority Bob and I established in the bill is not functioning as Congress intended. Unfortunately, the report wrongly faults the law for this lapse. Bayh-Dole clearly established a high level policy oversight function with enough teeth to insure **uniform** implementation by all agencies. The system successfully operated for the first 15 years of Bayh-Dole. It was led by those familiar and supportive of the law. An effective policy office developed and implemented the regulations for Bayh-Dole, prevented agencies from misusing the exceptional circumstance provision to take research out from under the law, halted attempts to override Bayh-Dole in international agreements, helped craft Executive Order 12591 making Bayh-Dole the centerpiece of innovation policy, and worked with Congress to expand the principals of Bayh-Dole to the federal laboratory system. That sounds pretty effective to me.

The real cause of the current problem came as the expert staff left, succeeding policy officials appeared disinterested in Bayh-Dole, and oversight gradually fell off the radar screen.  If not corrected, such neglect will create serious problems because the law cannot run on auto pilot much longer. Otherwise the essential principal of Bayh-Dole -- *creating a uniform patent policy across all agencies*-- falls by the wayside. This simply must not be allowed to happen. Which reminds me of a story.

Late in his life Benjamin Franklin was asked by a young person what the Founding Fathers were leaving to posterity. Franklin replied: “*A republic, if you can keep it*.” So let me close with this paraphrase on behalf of all of us who worked to enact the law all those years ago:

**We’ve given you Bayh-Dole. It’s now up to you to keep it.**

Thank you