

Traxler/Bloch

Welcome

Seminar on "Dollars for Scholars"...
Federal Policy in funding Research
Express our gratitude to Congressman Traxler
and Erich Bloch for taking time out of their
busy schedule to be with us this morning.

In a sense it is both appropriate and ironic

that this discussion should take place in Michigan
in the heart of the Rust Belt...
While people generally look at the midwest as a relic
of America's industrial past, let me suggest that in
many ways, it can also be viewed as America's
future.
For it is in the industrial midwest...in Michigan...
that we have had to learn how to adapt to
a brave, new world of intense economic
competition...
Industries of great economic importance to our
nation such as steel and automobiles have
fallen victim to intense competition from abroad...
Plants have closed...our cities are filled with cronicly
unemployed...
In Michigan we no longer worry about nuclear war and
and the bomb because we believe that
"The odds are greater that America will be bought up by the
Japanese than blown up by the Russians..."
What is happening?
The world economy is now in control
However, it is misleading to blame all our ills on
international competitiveness alone!
Something else is happening...

The Challenge of Change

The challenge of dramatic economic change...
Traditional industry economy is shifting to a new
knowledge-based economy, just as our industrial
economy evolved from an agrarian society at the
turn of the century.
A transition is occurring in which..
Intellectual capital has replaced
financial and physical capital as key to
economic development and the quality of life
As Erich Bloch, Director of the National Science Foundation
puts it, we have entered a new age, an "Age of
Knowledge in a Global Economy"
The handwriting is on the wall...
Taxes, trade, and fiscal policies influence economic
competitiveness. But in the long run, a strong base of
research and education is more important
Maintaining America's competitive edge requires attention
to our traditional strength -- people and ideas -- and
a strong offensive strategy based on these resources.
Key in this effort will be the role played by America's
research universities
Produce talented engineers to implement new technology
Through research produce creativity necessary for innovation
Attract "risk capital" through massive federal R&D support
Key to technology transfer
Traditional: graduates, publications
Entrepreneurs
Startups

The Warning Signs

1. America's Lead is Slipping
No question that US has lost lead in many areas
Industrial productivity and heavy manufacturing
Steel, durable goods, ...
Energy
Electronics
2. We are seriously underinvesting in R&D and Education
For over two decades, US investment in civilian R&D has dropped while that of our competitor nations has risen rapidly. We are now far behind Japan and Germany in the fraction of GNP invested in R&D.
Almost all growth has gone into military research (70% of federal R&D budget)
Support of basic research has dropped significantly (as has support of research in C&S)
3. Science and Engineering Manpower shortage
4. Technological Illiteracy
Knowledge explosion, particularly in science and technology, has far outdistanced our society's capacity or willingness to cope

Most Serious Concern:

A desperate need for a strategic national commitment to the support of university-based research and education...
to produce the key knowledge resources so necessary for the strength and prosperity of America...

And this, I presume, will be a key thrust of the morning's discussion