

The Application of the Knowledge Economy

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Moving Right Along...

“The Powerpoint Syndrome”



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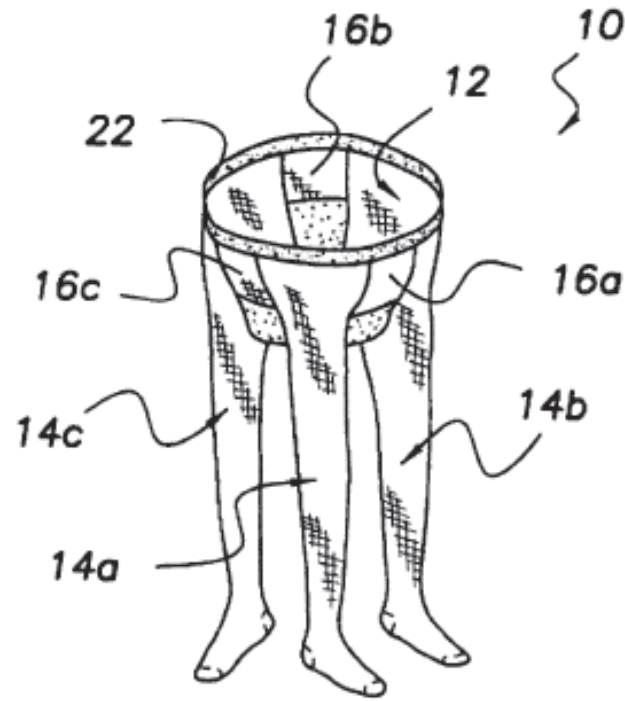
It takes more than a GREAT INVENTION...

The Cheese-Filtered Cigarette



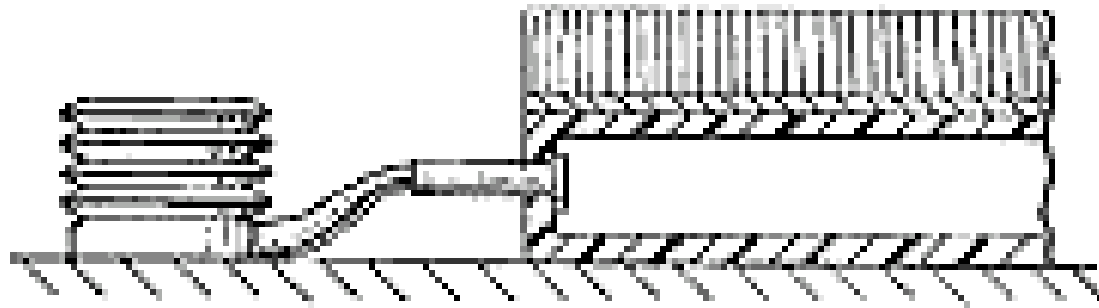
With GREAT Utility...

- ▶ **U.S. Pat. No. 5,713,081:** Pantyhose garment with spare leg portion.



And a Potentially HUGE Market...

- ▶ **Inflatable rug**...convertible to a mattress, in order to obviate the prior art problem of storing or housing large convertible beds.



And Predictions Aren't All That Great, Either...

- ▶ “Television won't last because people will soon get tired of staring at a plywood box every night.” Darryl Zanuck, Movie Producer, 20th Century Fox, 1946
- ▶ “The world's potential market for copying machines is 5,000 at most.” The President of IBM, to the Xerox Corporation, in 1959

It Takes PEOPLE

SIX CHIX

BY RINA PICCOLO



A Shift to A Knowledge Economy

- ▶ The phrase was popularized if not invented by Peter Drucker in his book The Age of Discontinuity
- ▶ Defined as the use of knowledge to produce economic benefits
- ▶ Primarily refers to high-technology businesses such as computer software, telecommunications and virtual services, as well as educational and research institutions

Indiana: From Agriculture to Products to People

- ▶ Talent/Creativity
- ▶ Technology
- ▶ Capital Investment
- ▶ Knowledge

TALENT / CREATIVITY

- ▶ 1. Areas of Expertise
 - “Do what you’re good at”
- ▶ 2. Local and Regional
 - “Expanding Horizons”
- ▶ 3. Private and Public
 - “The Partnership Way to Profit”
- ▶ 4. Educational/Training Focus

TECHNOLOGY

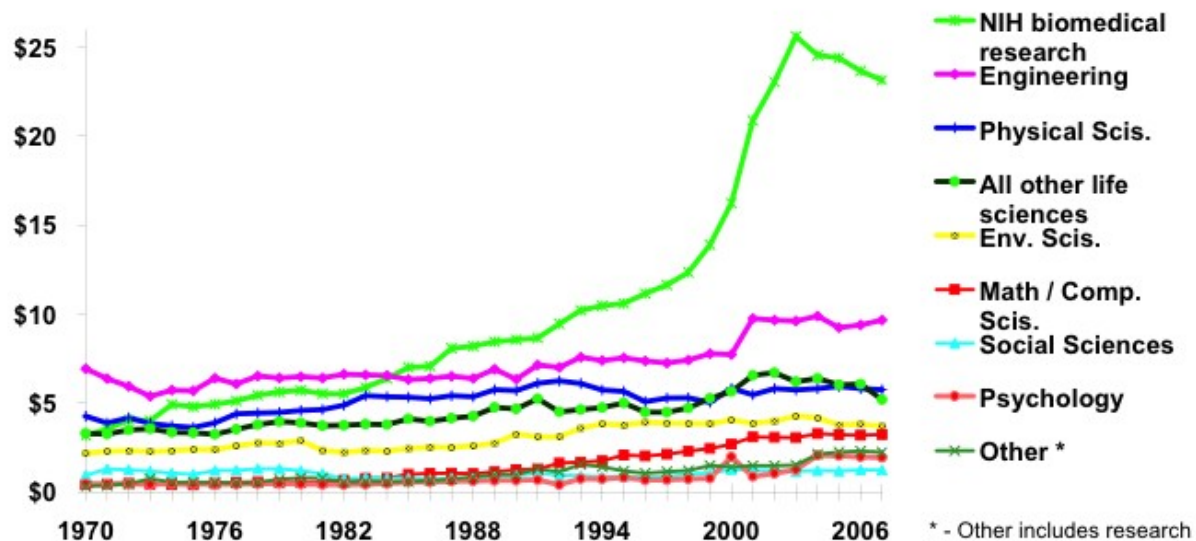
- ▶ The technology itself – what does it do? How is it different? How is it “new, groundbreaking, innovative”?
- ▶ Innovation versus Duplication versus Synthesis versus Extension
- ▶ The Application of Technology – broadband, fiber, wireless, organized networks, social networking access/utilization.
- ▶ Piggybacking – how unique is unique?

CAPITAL INVESTMENT

- ▶ Local Organized Capital – Angel Networks, Venture Firms
- ▶ Government Funding – Local, State Funds
- ▶ Private Foundations
- ▶ University Investment
- ▶ “Inflow versus Outflow” for Capital – how much are you bringing into the area?

DECLINING GOVERNMENT \$\$\$

Trends in Federal Research by Discipline, FY 1970-2007
obligations in billions of constant FY 2008 dollars



Life sciences - split into NIH support for biomedical research and all other agencies' support for life sciences.

Source: National Science Foundation, *Federal Funds for Research and Development FY 2005, 2006, 2007, 2008*. FY 2006 and 2007 data are preliminary. Constant-dollar conversions based on OMB's GDP deflators. FEB. '08 © 2008 AAAS

* - Other includes research not classified (includes basic research and applied research; excludes development and R&D facilities)



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KNOWLEDGE

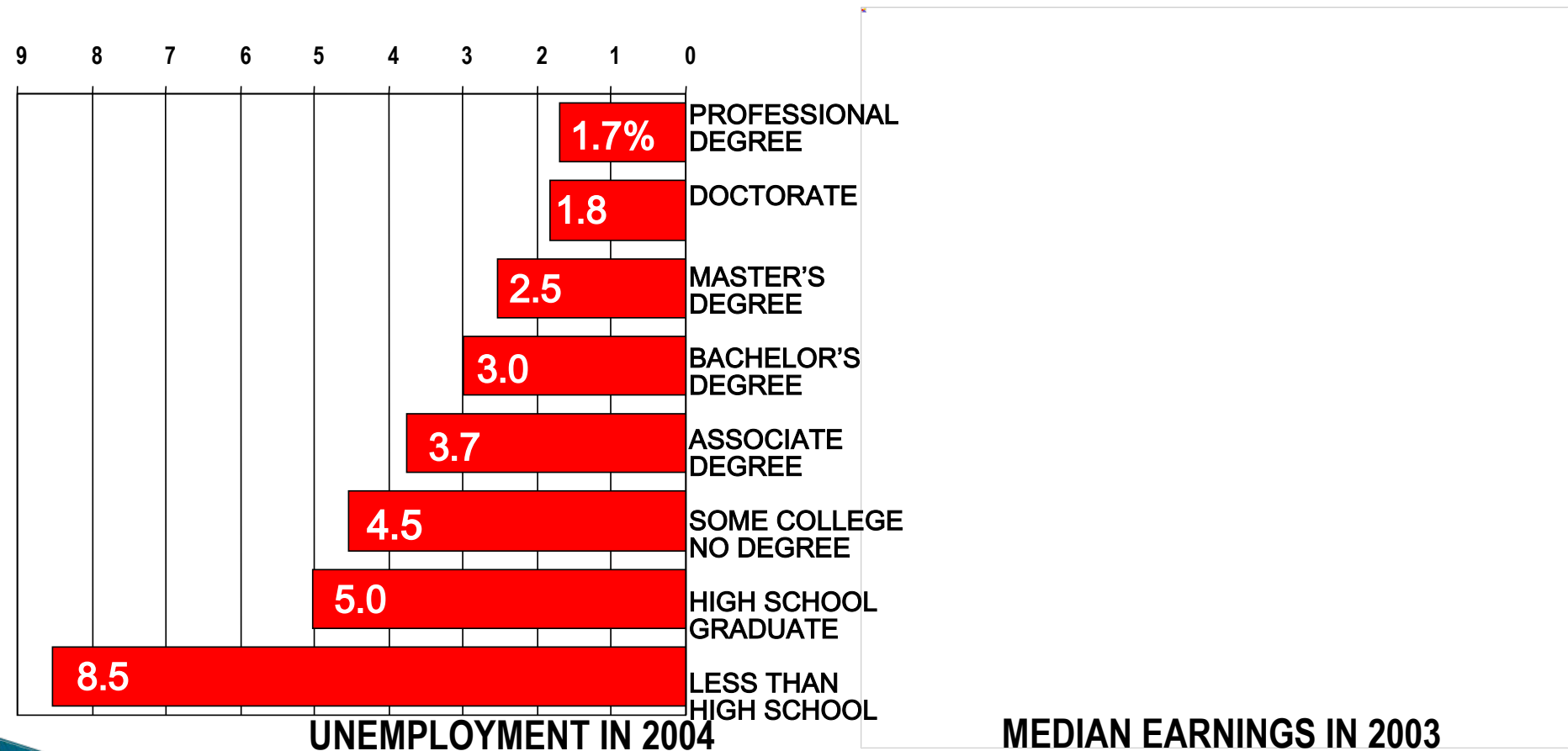
- ▶ Many things to many people – the “controversy”
- ▶ Well-educated, highly-skilled workers who value learning and are able to make learning a priority throughout their lives
- ▶ A strong educational system with a research capacity which creates new companies (thus new jobs) in the technical/scientific areas (biosciences, medicine, IT, energy, etc.)
- ▶ Key investments in high-technology infrastructure to support the above

The CONTROVERSY

- ▶ The key – putting more money into early education to train the workers of tomorrow **AT AN EARLY AGE** is effective
 - Younger people learn faster and easier, stays with them longer
 - Younger people are more technology-proficient and adapt readily to technology changes
- ▶ But where does that money come from? Do you decrease adult education/re-training/workforce development?
- ▶ A delicate balance

Higher learning = higher earning

In today's world, those with a higher education will benefit most.



Note: Earnings for year-round full-time workers 25 years and over; unemployment rate for those 25 and over

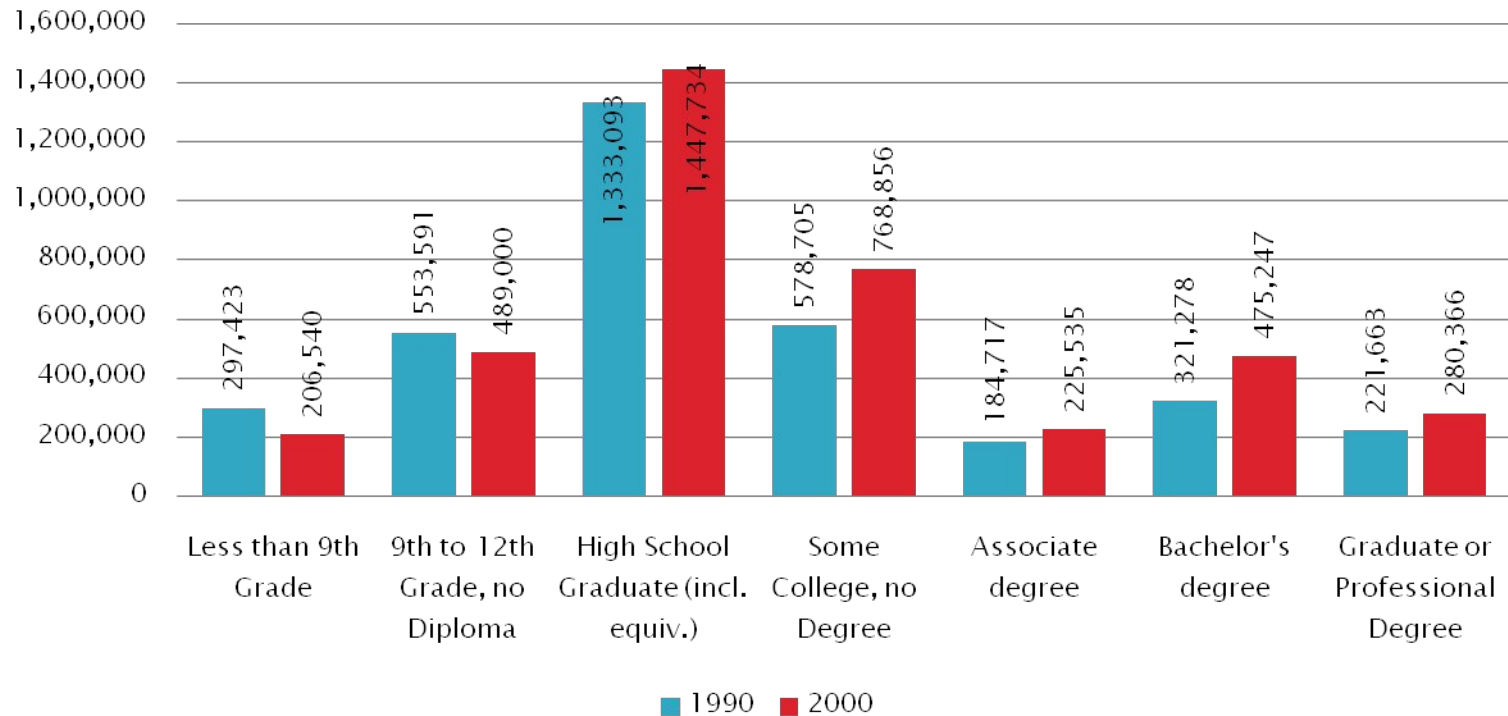
Source: Bureau of the Census; Bureau of Labor Statistics

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State of Indiana Educational Attainment Statistics

Indiana Educational Attainment Statistics 1990 & 2000



Source: IEDC Website,
<http://www.hoosierdata.in.gov/>

Communities Need All of These

- ▶ The “Creative Class” – Richard Florida
- ▶ The application of talent and creativity to harness new technologies to attract capital to apply knowledge to **CREATE BUSINESS OPPORTUNITIES** – where the “rubber meets the road”

And the Ultimate Application –

▶ **PERSISTENCE**

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