The Academic/Industrial Complex?

Introduction

Overview
- Traditional Academic Incentives
- Academic Patenting
- The First Puzzle: DWL
- The Second Puzzle: Academic Priorities

Academic Incentives

A Puzzle from the Last Lecture
Investing in the Unknowable

History
- Carnegie, Rockefeller et al.
- Peer Review
- NIH & NSF
- Curiosity and Its Surrogates

A Puzzle from the Last Lecture

Overview
- Patents + Grants
- Why Change the Grant System?
- Agency Problems?
- Will We Change Academic R&D Priorities?
- ... and should we?

Academic Incentives
Beyond Grants

Is It Optimal?
Beyond The Grant Model
NASA & DoD.
Licklider
Industry Participation
Gifts, Affiliates Programs, Grants, ORUs.

Basic Argument:
More Curiosity-Driven Research
Caveats:
Who Benefits Most?
Tilting The R&D Mix
Basic vs. Applied
Long-Term vs. Short-Term
Government Responses
Crowding Out?

A Natural Extension (?)
Academic Patents

Money is Different!
- Curiosity + Money
- Cashing Out Long Term R&D?
- Cashing Out Reputation?

Pre-1980s Individuals
- Consulting
- Patents
Left University to Form Businesses.

Universities
- Harvard: No DWL for medical R&D
- Berkeley: Profit Maximization
- Wisconsin: Socially Responsible Investing
- Stanford: Marketing Knowledge

Bayh-Dole (1980)
- Marketing Knowledge
- Incremental Improvements
- Not Money for Universities
- Not Increased R&D Incentives

Licensing Offices
- Growth of Patenting, Licensing, and Startups
- How Profitable Is Licensing?
- Income vs. Incentives
- The “Lottery Ticket” Dynamic

Academic Entrepreneurs
- Staying in Academia
  - The 40% Solution
  - Money for Labs & Departments
- Politics
  - An Iron Triangle?
  - Visible vs. Invisible Benefits
The First Puzzle: Marketing

1) Time to Market
   Survey Data
   A Tax on Knowledge?
   Pharmaceuticals
   Tacit Knowledge
   Is Consulting Enough?

The First Puzzle: Incremental Improvements

2) Empirical Evidence
   Why Not Patent Reform?

The Second Puzzle: Priorities

Basic vs. Applied Research
Statistics vs. Anecdotes
The Future
"Changing the University"
   Engines of Growth?
   Is the Culture Changing?
   Tenure

The Second Puzzle: Priorities

A Silver Lining?
Understanding Market Needs
Side Effects
   Hoarding Information
   Conflicts of Interest

Conclusions

More Study is Needed!
In Praise of Naïve Arguments
The Scottish Verdict - "Not Proved!"