

The background of the slide features a large, semi-transparent watermark of the University of Pittsburgh seal. The seal is circular and contains the text 'UNIVERSITY OF PITTSBURGH' at the top and 'PITTSBURGH' at the bottom. In the center, there is a shield with a checkered pattern and a banner below it with the words 'VERITAS' and 'VIRTUS'. The year '1787' is also visible within the seal.

The Research University and the Practicalities of Tech Transfer: Challenges, Dilemmas, and Opportunities

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Why Run a Tech Management Office?

Bayh-Dole Requirement

Faculty Expectations

Regional Economic Development

Revenue Potential



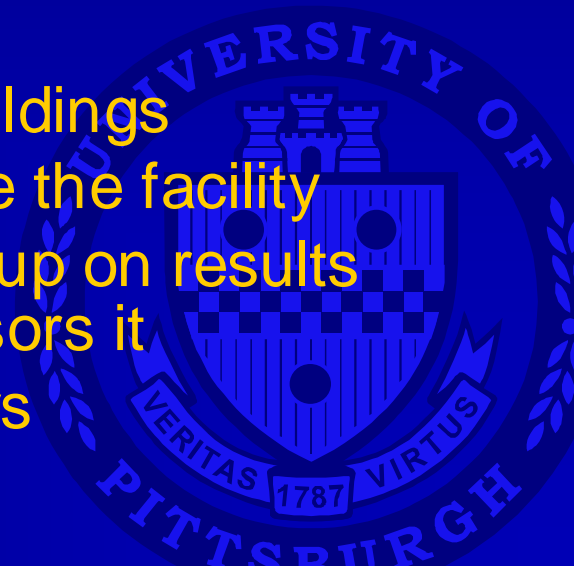
Bayh-Dole Issues

University owns IP – even if only federally-bought equipment is used

Must secure “fair market value”
(no special deals for local people)

Ancillary Issues:

- no work for hire in tax-exempt buildings
- problems if tax free bonds finance the facility
- faculty must be allowed to follow up on results of research, no matter who sponsors it
- must avoid long publication delays



Faculty Expectations

Generational – how to retain + keep focused

Demands depend on research area

- Software: fast and inexpensive
- Biotech: long delays + costly labs

Sophistication needed

- some in external community will exploit faculty naivety
- education program helpful



Faculty Expectations

Education Programs

- a)
 - when to spin off company
 - when to license
 - how involved inventor should stay
 - marketing through professional society meetings

- b)
 - what to expect from OTM
 - how to protect IP
 - when to file a disclosure
 - how to spin out a company



Regional Economic Development

Bad Business is a Bad Idea

Do Not

- Start up one-product companies
- License to undercapitalized companies
- Form dummy companies to get SBIRs
- Make no-cash deals

Do

- Look for VCs who will invest in the region
- Look for solid firms to make locally sited joint ventures
- Take equity positions/warrants etc.



A Workable Commercialization Model

- ▶ Must serve as a complement to other regional development agencies

- ▶ In 2002, the University of Pittsburgh created the Technology Commercialization Alliance
 - To encourage a more entrepreneurial culture within the University
 - To accelerate the development of ideas into commercially viable innovations
 - To cultivate interaction with industry



Services the Alliance Provides

▶ Entrepreneurial Support

- Prototype development
- Business and financial planning
- Market research and communication
- Patenting and licensing
- Business opportunity development

▶ Through entities such as:

- Office of Technology Management
- Institute for Entrepreneurial Excellence
- Swanson Institute for Technical Excellence
- Office of Enterprise Development (Health Sciences)



Services the Alliance Provides

▶ Innovation Education

- Academic Entrepreneurship Courses, i-Lab Innovation Workshops, Celebration of Innovation

▶ Outreach Programs

- Conferences, Poster Receptions, Online Databases



Other Elements for Success

- ▶ Pitt and CMU Initiatives
- ▶ New pools of gap funding
 - University Investment/Provost Fund
 - The Heinz Endowments
 - Innovation Works
 - Keystone Innovation Zone grants

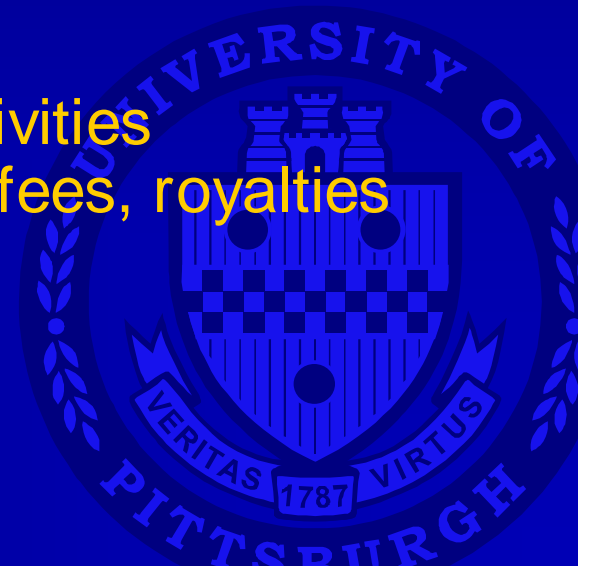


Revenue Potential

Are we making money?

What does office cost?

- education program
- assessing disclosures
- patenting
- marketing
- deal making
- tracking: on-going patent activities
milestones, annual fees, royalties
compliance issues



Revenue Potential

Are we making money?

Cost of unreimbursed legal expenses?

Revenue to inventor

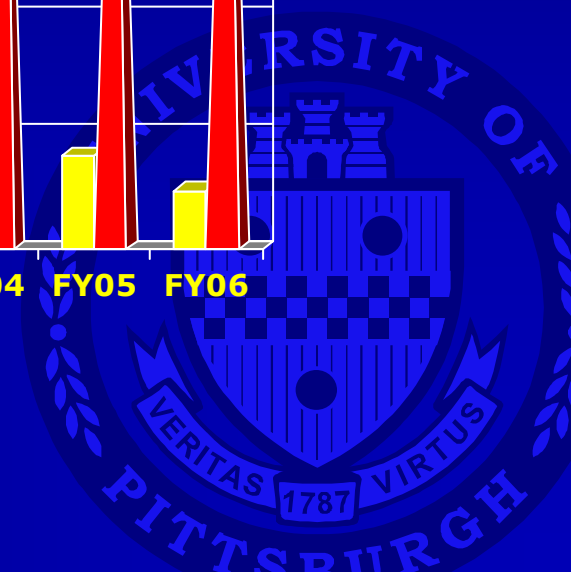
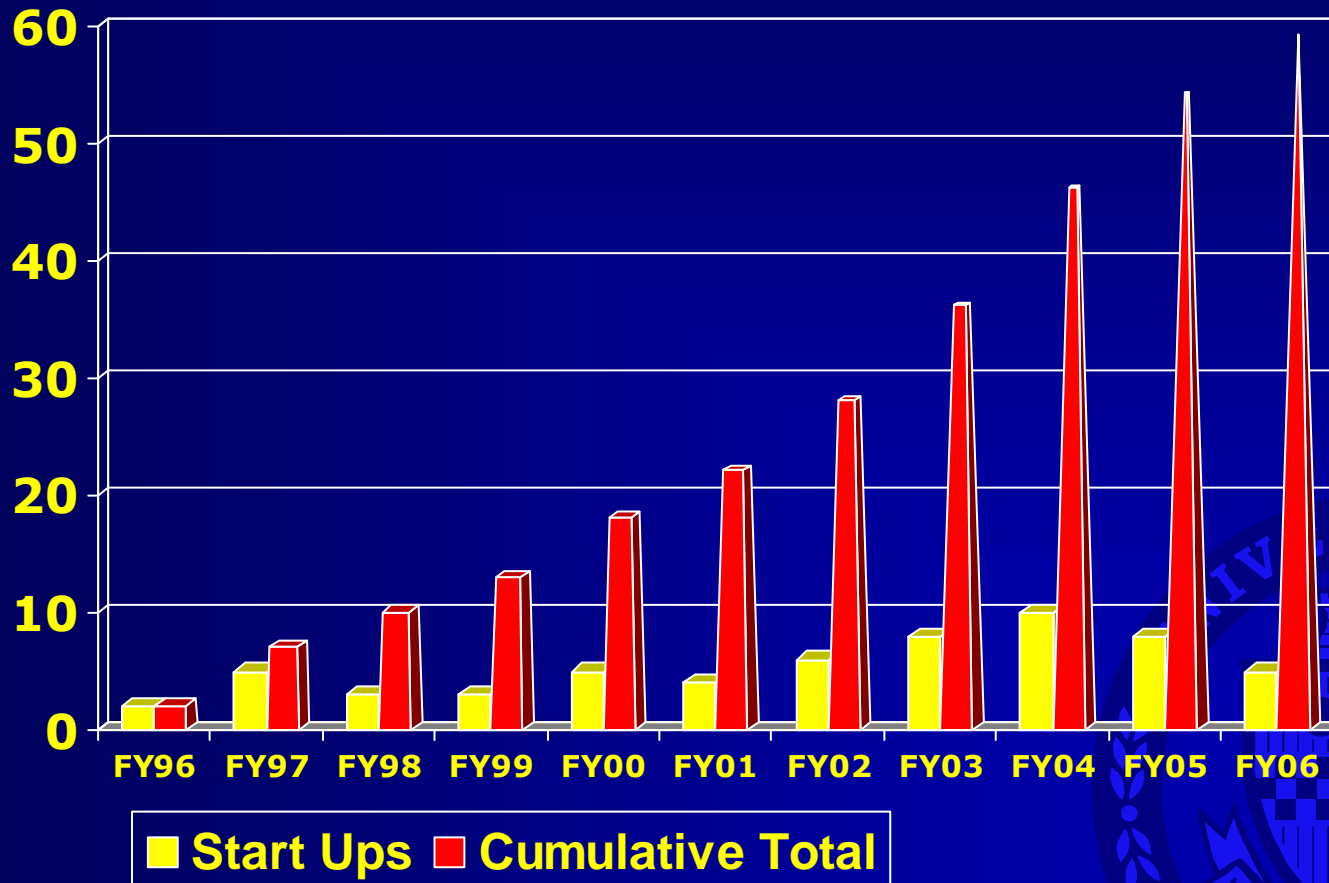
Revenue to inventor's lab

Revenue to general academic programs

Revenue to cover cost of office



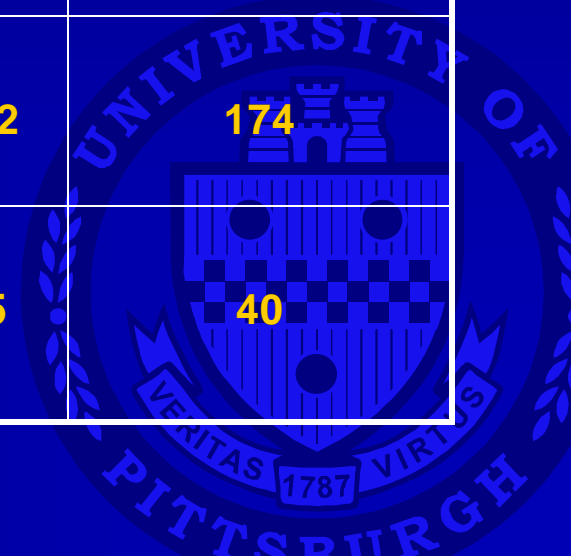
Companies Started with Pitt Technology Licenses: 10 Years



Making an Impact

University of Pittsburgh Office of Technology Management Historical Statistics
FY 2001 through FY 2006

	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	Cumulative Six Year Total FY01-06
Invention Disclosures Received	85	91	74	140	141	165	696
License/Options Executed	20	33	44	53	58	54	262
US Patents Issued	49	22	22	39	20	22	174
Pitt Start-Up Companies Formed in Fiscal Year	4	5	8	10	8	5	40



Assessing Progress: National Comparison (FY04)

Name	Total Sponsored Research (thousands)	Invention Disclosures	U.S. Patent Applications Filed	Licenses & Options Executed	Start-Up Companies Formed
U. of Illinois	813,740	262	108	88	16
U. of Wisconsin	763,875	405	163	203	2
U. of Michigan	752,527	285	149	73	13
Penn State	606,521	167	125	23	4
U. of Pittsburgh	558,878	140	58	53	10
U. of Minnesota	515,061	224	83	100	3
Ohio State	447,000	161	n/a	30	6
U. of Maryland	344,917	70	101	25	1
U. of North Carolina	327,619	120	59	38	3
Rutgers	263,094	167	92	25	0
U. Of Virginia	228,532	151	179	55	5

University Contributions to the Regional Economy

- ▶ Talent attraction and development
- ▶ R&D funding attraction
- ▶ Employment and spending
- ▶ Business assistance services
- ▶ Startup company generators

