- **Texas** Innovation Network

The Dallas-based Texas Innovation Network (TIN) claims to be the most comprehensive state-funded technology information service in the U.S. The system is available **via *Internet* at a rate of 35** cents per minute".

- Best **North America's**

This service, provided by Cartermill, Inc. is targeted toward large corporations. The service provides information on research at more than 300 academic research institutions in North America, Britain, and Western Europe. An annual subscription costs $2,500 plus $300 **per hour** for on-line searches. Unlimited searching is provided with an annual $10,000 fee. Custom searches are also available.

- **Technology Transfer Search System**[46]

Illinois-based Technology Search, International, Inc. provides a publication "Finding and Licensing New Products and Technology" and is introducing a new Technology Transfer Search System Database.

Top 10 Universities in Licensing Income FY 89-90

1. **Stanford $24.8M**
2. **Wisconsin $21.9M**
3. **Michigan State . . $12.1 M**
4. **Columbia $12.5M**
5. **UC-San Francisco $11.3M**
6. **MIT . . . . . $ 5.2M**
7. **Colorado . . . . . $ 3.7M**
8. **U. Washington . . $ 3.0M**
9. **Harvard . . . . . $ 2.5M**
10. **Minnesota . . . . . $ 2 . 3 M**

Figure 1

PROMINENT UNIVERSITY PROGRAMS

Federally-sponsored research at universities has taken an downturn, but some of the major universities have found **a** new source of revenue in the licensing **of** their technology, both university sponsored and federally-sponsored (Fig. 1) and significant numbers of patented technology are emerging as a result (Fig 2)[47,48], The potential for conflict of interest and the requirements to document federal work are two complicating factors in university technology transfer management activities. Two programs will serve to illustrate the types of activities at these institutions:

- **The MIT Licensing Office**

The Massachusetts Institute of Technology (MIT) has a prime interest in taking equity in a business start-up, but closely regulates the propriety of such an equity position, both from the viewpoint of the university and the researchers who developed the technology. MIT has helped develop more than 30 spin-off companies in the last five years. The university still has to distinguish carefully which technologies have received Federal sponsorship (such as that emanating from Lincoln Laboratory) as opposed to those that have been strictly University sponsored. Federally sponsored research is required to be reported and is collected by the NTIS. For these types of technologies, the Government has royalty-free use, while the University can take steps to commercialize the technology. The technology licensing office maintains information on all viable technology and its patent status, and responds to inquiries from industry and potential investors.

- **Johns Hopkins University Programs**

At Johns Hopkins, the Federally sponsored technology at the Applied Physics Laboratory (APL) is managed separately from other University research. The APL Technology Transfer Office is currently working with the NIT-C to provide a gateway to information on the technologies produced with Federal funding from DOD and NASA.

Across the campus, another activity involves an initiative oriented toward commercializing university spinoffs. The Triad Investors Corporation is seeking out and cataloging technology with commercial applications that can be developed for less than $200,000 in less than 18 months. One company that has recently spun-off from Hopkin's research is marketing a CPR vest which provides artificial pulmonary resustication for heart attack patients. For those familiar with the technology commercialization process, this objective is an ambitious one. The university is setting up collaborative agreements such as a recent partnership to fund cancer research where the participating company gets an options on new treatments or diagnosis technology.

Top TECHNOLOGY Universities in Invention Disclosures FY 89-90	
1. MIT	609
2. Stanford	311
3. Minnesota	309
4. Wisconsin	225
5. Cornell	181
6. Harvard	165
7. Michigan	162
8. U. Washington	148
9. Johns Hopkins	141

Figure 2