The AUTM Licensing Survey Executive Summary and Selected Data Fiscal Years 1991 and 1992



AUTM

Association of University Technology Managers, Inc.



The AUTM Licensing Survey
Executive Summary and Selected Data
Fiscal Years 1991 and 1992

Prepared For and Submitted To
The Association of University Technology Managers, Inc.

October 1993

Conducted By

Diane C. Hoffman, Inc.
23 Perrine Path
Cranbury, NJ 08512
(609) 799-6187

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FOREWORD

It is with great pleasure that we submit to you the results of the "AUTM Licensing Survey" for Fiscal Year 1991 and Fiscal Year 1992. This survey was conducted in 1993 by the Association of University Technology Managers ("AUTM") through the joint efforts of H. S. Duke Leahey (AUTM President), Jean A. Mahoney (AUTM Publications Committee Chair), Eugene K. Schuler, Jr. (AUTM Statistical Committee Chair), the AUTM Officers, and Diane C. Hoffman (Diane C. Hoffman, Inc.).

The "Executive Summary and Selected Data" report provides an overview of the larger, more detailed report (referred to hereafter as the "full report") and includes 1992 aggregate totals and some selected data from the full report.

We thank the AUTM members for their participation in this survey. The timely and complete responses have set the stage for the running of the "AUTM Licensing Survey" on an annual basis. It is expected that both the "Executive Summary and Selected Data" report and the full report will be updated each year, providing the most recent statistics for licensing activities from universities, hospitals, research institutes, government agencies, and third-party patent management firms.

For information on the price and availability of the full report, contact Ms. Penny Dalziel, AUTM, 71 East Avenue, Suite S, Norwalk, CT 06851-4903, (203) 852-7168 (P), or (203) 838-5714 (F). Questions regarding the material presented in this report should be directed to our attention.

H. S. Duke Leahey
AUTM President
and
Director, Industrial
Contracts and Licensing
Washington University
St. Louis MO 63130
(314) 935-5825

Jean A. Mahoney
AUTM Publications
Committee Chair and
Director, Technology and
Trademark Licensing
Princeton University
Princeton, NJ 08544-0036
(609) 258-3097

Eugene K. Schuler, Jr.
AUTM Statistical
Committee Chair and
Associate Vice Provost
for Research/Campus Director
Technology Transfer
SUNY @ Stony Brook
Stony Brook, NY 11794-3366
(516) 632-9038

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EXECUTIVE SUMMARY

Introduction

The "AUTM Licensing Survey" was conducted by The Association of University Technology Managers, Inc. ("AUTM") to gather data from U. S. and Canadian institutions on their technology transfer programs. The survey covered a large range of topics, including staffing levels, sponsored funding amounts, licensing activity, gross royalties received, expenditures and reimbursements for legal fees, and statistics on invention disclosures and patent filings.

Respondents to the survey were requested to provide a *best estimate* to each question, if an exact response was not known. In a few instances, a response was footnoted as estimated numbers. Some participants rounded a response to the nearest thousands or millions, rather than providing an exact answer. Not available data have been noted as "N. Avail." The survey contained a provision for confidentiality. If a survey response was provided on a confidential basis, the institution's name is reflected in the reports as "Name Confidential." Definitions used during this survey are provided in Attachment A.

Survey Coverage

The survey population consisted of 260 institutions, which included all AUTM Full Members[1] (universities, hospitals, and Canadian institutions) and some selected affiliate members[2] (government agencies, third-party patent management firms, and research institutes). The response rate for the survey was high, with 85% of the 80 largest universities and hospitals (based on research volume) responding. Overall, 50% of those contacted responded, resulting in representation of: 98 universities, 14 hospitals, 10 Canadian institutions, and 8 other.

Summary of Results

In the full report, the results have been summarized for each fiscal year (Fiscal Years 1991 and 1992) by institution. The institutions have been separated into the following categories: U. S. Universities, U. S. Hospitals, Canadian Institutions, and Other. This latter category includes government agencies, third-party patent management firms, and research institutes. The full report presents data for the survey participants in five different sections: one section for each of the four institutional categories listed above, and a totals section. Attachments B and C provide the Table of Contents of the full report and a listing of the tables contained in each section, respectively.

In order to assist technology managers in interpreting the entire U. S. Universities' response as it pertains to their institutions, the individual responses have been noted in the full report to reflect the institutions as falling within the 1st, 2nd, 3rd, or 4th quarter of the population.

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University in the total reported royalties received for each of their respective universities. These numbers, therefore, represent a double count in the total gross royalties received. Adjusting for these figures, the adjusted gross royalties received become $199,516,739 in FY 1991 and $259,305,404 in FY 1992.

5. *Industrial support may include clinical trials or other non-government sponsored funding, as some institutions were not capable of excluding these amounts from private industry funding.*

6. *The reporting of data for university systems is reflected in the manner in which it was received from these institutions, i.e., the University of California System chose to include the following campuses in a single response: UC/Davis, UC/Irvine, UC/Riverside, UC/San Diego, UC/San Francisco, and UC/Santa Cruz. The University of California/Los Angeles and University of California/Berkeley campuses are not included in the "Univ. of California System" response.*

7. *The total number of professional full-time equivalents ("FTEs") and staff support FTEs for both technology transfer and those in support of licensing activities may be understated by the use of FTEs employed by third-party patent management firms that were used for these services. The use of third-party patent management firms was not reported in this survey.*

8. *Direct payment of patenting costs by licensees is not included in the legal fees expended and legal fees reimbursed data.*

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AUTM
Association of University Technology Managers

PRESIDENT
H.S. (Duke) Leahey
Director
Industrial Contracts & Licensing
Washington University
Campus Box 1054
One Brookings Drive
St. Louis, MO 63130

PAST PRESIDENT
Lita Nelsen
Director
Technology Licensing Office
Massachusetts Institute of Technology
Room E32-300
Cambridge, MA 02139

PRESIDENT-ELECT
William Hostetler
Director of Technology Transfer
Oregon State University
Office of the VP for Research
Corvallis, OR 97331-2140

VP--EASTERN REGION
H. Walter Haeussler
President
Cornell Research Foundation, Inc.
Suite 105, 20 Thornwood Drive
Ithaca, NY 14850

VP--CENTRAL REGION
Melvin J. DeGeeter, PhD
Director, Technology Transfer
Indiana University
Suite 314, One City Centre
Bloomington, IN 47404

VP--WESTERN REGION
Rita C. Manak, PhD
Director
Office of Technology Transfer
The University of Arizona
Suite 200, 1430 East Fort Lowell
Tucson, AZ 85719

VP--CANADA
Dr. James W. Murray
Director, Industry Liaison
The University of British Columbia
IRC 331-2194 Health Sciences Mall
Vancouver, BC Canada V6T 1Z3

VP--PROFESSIONAL DEVELOPMENT
Joyce Brinton
Director, Office for Technology
and Trademark Licensing
Harvard University
University Place, 4th Floor South
124 Mt. Auburn Street
Cambridge, MA 02138-5701

SECRETARY
Helen Becker
Manager
Biotechnology Licensing
University of British Columbia
IRC 331-2194 Health Sciences Mall
Vancouver, BC Canada V6T 1Z3

TREASURER
Karen Hersey
Intellectual Property Counsel
Massachusetts Institute of Technology
77 Massachusetts Avenue, Room 10-256
Cambridge, MA 02139

TRUSTEES
Terry Donaghue
Research Manager-Special Projects
Mount Sinai Hospital
600 University Avenue
Toronto, ON, Canada M5G 1X5

Teri F. Willey
Associate Director
Office of Technology Transfer
Purdue Research Foundation
1650 ENAD Room 328
West Lafayette, IN 47907-1650

October 22, 1993

Dear AUTM Members:

I am pleased to submit to the membership the first annual AUTM Licensing Survey. This comprehensive survey could not have been completed without the cooperation of over 100 members, providing results that are vital to understanding the benefits of our technology transfer programs to society. The purpose of the study was not only to provide a data set to measure the success/progress of various programs, but to encourage further study of the relationship between licensing and economic development.

The 130 US and Canadian AUTM institutions responding to the survey included 98 US universities, 14 US research hospitals, ten Canadian universities and hospitals and eight other organizations, including research institutes, patent management firms and government laboratories.

Royalties from licenses reported by respondents showed earnings of $260 million in FY 92 ($300 million from the raw data result, but adjusted for double-counting). This is an increase of approximately 30% from the FY 91 reported data. The results show a healthy growth trend and demonstrate that the 1980 Bayh-Dole legislation is working well.

Based upon an economic model developed by Dr. Ashley Stevens (Dana Farber Cancer Institute, Boston), it is estimated that in FY 92 the licensing activities of AUTM members were directly responsible for:

the sale by licensees of products valued at over $9 billion;

the retention and/or creation of over 53,000 jobs; and

the payment of over $1.8 billion in Federal, state and local sales taxes.

Using standard economic model multipliers, it is estimated that our licensing activities indirectly resulted in the retention or creation of another 250,000 jobs in FY 92. This job estimate does not include those created by companies or AUTM member institutions resulting from sponsored project relationships - that could add 100-200,000 more jobs.

These data show that AUTM member institutions are taking the Bayh-Dole legislation seriously. Combined with the results of the Public Benefits survey, AUTM can now demonstrate that the technology transfer mechanisms used by our members foster regional and national economic development.

(cont'd ...)

Suite S, 71 East Avenue, Norwalk, CT 06851-4903 • Phone: 203-852-7168 • Fax: 203-838-5714

These employment numbers should not be overplayed and must be viewed in context. They are estimates based upon certain assumptions and are just one positive outcome of our licensing programs. The primary benefit is getting new and useful products into production for the benefit of the public.

Please be cautious in your use of these data. AUTM does not wish to have any substantial publicity until further analysis of the data can be performed. The results of the short-term study will be presented at the AUTM Annual Meeting in February 1994, which will include trends and ratio analysis. A long-term economic development study is being proposed by AUTM in conjunction with leading economists that will take several years to complete.

AUTM will provide copies of the Executive Summary to the Department of Commerce during the Bayh-Dole meeting on October 25, 1993. In addition, we will provide copies to our major sponsoring agencies, such as NIH, NSF, DOD, NASA, and DOE, and other interested parties such as OSTP, OTA, and the GAO.

An order form is included for those who wish to purchase additional copies of the survey or to purchase the tabulated data set. Copies will also be sold to nonmembers for $75 each. This will assist AUTM in recovering the expense of the survey.

This is our first attempt to acquire data on the activities of AUTM members. If you have any questions concerning the data or wish to recommend changes to next year's survey, please do not hesitate to contact me.

Sincerely,

H.S. Duke Leahey
AUTM President
(Washington University)

HSL:hs
Enclosures

Attachment B

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* *As stated in the Foreword, the full report is available separately.*

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ALL RESPONDENTS: **Attachment D**

	U. S. UNIVERSITIES	U. S. HOSPITALS	CANADIAN INSTITUTIONS (US $)	OTHER RESPONDENTS	TOTAL
Professional FTEs:					
Technology Transfer	286.65	33.05	29.05	69.50	418.25
Licensing Activities	203.60	22.20	17.75	43.25	286.80
Staff Support FTEs:					
Technology Transfer	235.18	20.60	12.80	49.40	317.98
Licensing Activities	146.88	12.68	6.35	30.80	196.71
Industry Support	$1,157,550,344	$101,980,793	$47,128,859	$36,753,883	$1,343,413,879
Federal Govt. Support	$9,335,308,358	$484,419,885	$207,467,942	$112,584,423	$10,139,780,608
Total Sponsored Funding	$12,979,022,384	$760,766,387	$470,409,005	$168,190,308	$14,378,388,084
Licenses/Options Executed	1,387	168	54	122	1,731
Total Licenses with Equity	321	37	8	5	371
Royalties Received	$172,681,192	$44,010,748	$4,153,047	$77,460,417	$298,305,404
Legal Fees Expended	$37,733,990	$6,419,010	$698,829	$7,973,243	$52,825,072
Legal Fees Reimbursed	$12,608,911	$2,624,126	$235,950	$289,542	$15,758,529
Licenses/Options Generating Royalties	2,632	201	158	186	3,177
Invention Disclosures	5,645	500	284	1,175	7,604
Total Patent Filings	2,329	381	60	481	3,251
New Patent Filings	1,734	212	86	206	2,238

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TABLE 1 **Attachment E (continued)**

(Ranked By FY 1992 Royalties Received)

U. S. UNIVERSITIES (continued):

Name of Institution	FY 1992 Royalties Received	FY 1992 Licenses Generating Royalties	FY 1992 Professional FTEs for Licensing	FY 1992 Legal Fees Expended	FY 1992 Legal Fees Reimbursed	FY 1992 Invention Disclosures Received	FY 1992 Total Patent Filings	FY 1992 Patents Issued	FY 1992 Licenses & Options Executed	Total Active Licenses & Options
Univ. of Southern California	$494,831	9	2.00	$135,799	$27,086	48	21	19	4	23
Temple University	$478,000	17	2.00	$600,000	$150,000	23	17	15	3	13
Name Confidential	$472,228	17	1.20	$253,102	$127,506	40	16	11	9	54
Case Western Reserve, University	$469,000	8	2.00	$77,000	$30,000	39	7	9	9	9
Univ. of Cincinnati	$458,004	9	0.65	$711,417	$647,510	46	15	7	10	45
Vanderbilt University	$443,500	15	1.10	$194,500	$19,200	33	11	4	13	28
Univ. of Alabama/Birmingham	$434,820	30	2.25	$96,281	$40,042	79	24	6	23	33
Univ. of Maryland, College Park	$425,421	34	5.00	$210,060	$92,389	62	14	14	29	72
Univ. of North Carolina/ Chapel Hill	$413,888	36	1.50	$159,604	$97,014	78	30	12	11	21
Name Confidential	$400,000	10	2.00	$750,000	$600,000	148	50	13	8	70
Univ. of Texas Health Sci Ctr, San Antonio	$400,000	10	1.00	$50,000	$20,000	12	8	N. Avail.	7	20
Princeton University	$390,908	14	0.80	$62,203	N. Avail.	60	25	4	18	29
Oregon State University	$377,223	21	0.80	$171,964	$29,441	27	10	11	5	38
SUNY Research Foundation	$365,535	23	2.00	$694,839	$158,974	101	40	28	23	79
Name Confidential	$355,000	16	2.50	$270,000	$90,000	50	31	8	12	23
Northwestern University	$309,561	11	1.80	$400,617	$192,146	44	26	8	6	29
Univ. of Arkansas	$299,358	13	0.50	$191,787	$50,000	19	7	16	5	10
Name Confidential	$269,123	16	0.40	$120,702	$13,950	20	7	10	4	39
Univ. of Central Florida	$260,000	9	0.25	$9,625	$0	32	12	N. Avail.	7	9
Univ. of Maryland, Baltimore	$252,000	5	3.00	$60,000	$43,000	50	15	1	6	9
Univ. of Illinois, Urbana, Champaign	$250,526	34	0.00	$32,408	$8,107	70	22	N. Avail.	10	N. Avail.
SUNY at Buffalo	$230,830	11	1.60	$250,000	N. Avail.	49	14	N. Avail.	8	20
Univ. of Connecticut	$224,000	4	0.80	$115,000	$30,000	29	14	8	5	19
Univ. of Dayton	$218,000	9	1.00	$91,000	$1,500	21	3	1	9	58
Name Confidential	$211,974	10	0.25	$194,000	$0	27	13	4	3	20
Colorado State University	$198,163	17	0.50	$23,028	$0	33	10	1	3	37
Univ. of Massachusetts/Med. Ctr.	$197,047	10	0.50	$121,628	N. Avail.	10	8	6	6	20
Oklahoma Medical Research Fndtn.	$168,500	5	1.00	$285,957	$138,040	7	17	N. Avail.	2	11
Name Confidential	$167,000	10	0.50	N. Avail.	N. Avail.	21	5	N. Avail.	1	10
Univ. of Arizona	$153,469	13	0.50	$61,607	$2,048	93	14	1	13	70
Name Confidential	$146,200	10	1.50	$350,000	$44,600	59	40	23	9	23
Washington State University	$133,000	18	1.50	$89,127	$68,000	42	8	5	10	30
Indiana University	$112,000	23	1.00	$136,974	$34,000	61	33	6	16	28
Syracuse University	$89,968	7	1.00	$79,876	$16,395	8	2	5	3	7
Name Confidential	$72,000	4	1.00	$42,000	$25,000	24	8	2	5	12
Dartmouth College	$66,000	13	0.00	N. Avail.	N. Avail.	11	12	1	2	19
Name Confidential	$62,736	9	0.50	N. Avail.	N. Avail.	4	4	1	0	11
Wake Forest University	$62,500	2	0.50	$44,639	$30,371	20	9	N. Avail.	2	13
Name Confidential	$56,648	6	1.00	$204,978	$772	15	10	N. Avail.	5	9
Univ. of Oregon	$56,000	5	0.20	$62,370	$9,278	12	4	4	4	7

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TABLE 1 **Attachment E (continued)**

(Ranked By FY 1992 Royalties Received)

U. S. HOSPITALS: Name of Institution	FY 1992 Royalties Received	FY 1992 Licenses Generating Royalties	FY 1992 Professional FTEs for Licensing	FY 1992 Legal Fees Expended	FY 1992 Legal Fees Reimbursed	FY 1992 Invention Disclosures Received	FY 1992 Total Patent Filings	FY 1992 Patents Issued	FY 1992 Licenses & Options Executed	Total Active Licenses & Options
City of Hope National Medical Ctr.	$20,861,915	18	2.00	N. Avail.	N. Avail.	25	30	11	N. Avail.	27
Name Confidential	$14,776,807	21	2.00	N. Avail.	N. Avail.	36	33	12	8	40
Dana-Farber Cancer Institute	$2,789,561	9	1.00	$948,340	$131,896	65	61	7	11	47
Mayo Foundation	$2,741,200	67	4.00	$138,542	$0	105	10	8	24	100
Massachusetts General Hospital	$1,316,350	12	3.50	$2,683,950	$1,933,285	126	111	1	55	204
Name Confidential	$623,000	16	1.50	$468,000	$64,000	19	16	1	7	27
Fred Hutchinson Cancer Res Ctr.	$395,724	22	2.00	$267,738	$96,297	25	22	N. Avail.	11	43
Name Confidential	$243,239	10	3.00	$1,124,838	$127,198	50	62	15	43	107
New England Medical Center	$210,000	8	1.25	$392,000	$61,000	18	19	N. Avail.	1	18
St. Jude Children's Research Hospital	$36,191	11	0.60	$16,602	$0	4	1	N. Avail.	5	12
Name Confidential	$15,000	5	0.25	$109,000	$100,450	4	5	N. Avail.	2	7
Children's Hospital Oakland	$1,761	2	0.50	$66,000	$0	2	1	N. Avail.	0	3
California Pacific Medical Center	$0	0	0.10	$4,000	$0	1	1	N. Avail.	0	0
Childrens Hospital of Philadelphia	$0	0	0.50	$200,000	$110,000	20	9	2	1	1
TOTAL U. S. HOSPITALS	$44,010,748	201	22.20	$6,419,010	$2,624,126	500	381	57	168	636

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TABLE 1 **Attachment E (continued)**

(Ranked By FY 1992 Royalties Received)

OTHER RESPONDENTS:

	FY 1992 Royalties Received	FY 1992 Licenses Generating Royalties	FY 1992 Professional FTEs for Licensing	FY 1992 Legal Fees Expended	FY 1992 Legal Fees Reimbursed	FY 1992 Invention Disclosures Received	FY 1992 Total Patent Filings	FY 1992 Patents Issued	FY 1992 Licenses & Options Executed	Total Active Licenses & Options
Government										
National Institutes of Health	$11,899,095	N. Avail.	25.00	$4,223,558	N. Avail.	304	335	N. Avail.	88	N. Avail.
Lawrence Berkeley Laboratory	$80,000	9	1.50	$261,670	$70,000	60	24	N. Avail.	5	23
Subtotal Government	$11,979,095	9	26.50	$4,485,228	$70,000	364	359	0	93	23
Third-Party Patent Management Firm										
Research Corporation Technologies	$50,345,501	117	12.00	$2,746,586	$6,671	704	70	N. Avail.	N. Avail.	N. Avail.
Center for Innovative Technology	$303,300	25	1.50	$325,000	$150,000	80	27	N. Avail.	13	25
Subtotal Patent Management Firms	$50,648,801	142	13.50	$3,071,586	$156,671	784	97	0	13	25
Research Institutes										
New York Blood Center	$14,808,926	26	1.50	$231,739	$33,376	12	7	4	2	62
Name Confidential	$13,595	8	0.25	$25,000	$0	5	5	N. Avail.	8	8
Houston Advanced Research Center	$10,000	1	1.30	$143,890	$29,495	10	5	N. Avail.	2	2
Name Confidential	$0	0	0.20	$15,800	$0	N. Avail.	8	N. Avail.	4	4
Subtotal Research Institutes	$14,832,521	35	3.25	$416,429	$62,871	27	25	4	16	76
TOTAL OTHER RESPONDENTS	$77,460,417	186	43.25	$7,973,243	$289,542	$1,175	481	4	122	124

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Suggested Citation

The Association of University Technology Managers, Inc. report entitled, *The AUTM Licensing Survey Executive Summary and Selected Data, Fiscal Years 1991 and 1992.*

Availability of Publication

For information on the price and availability of the "Executive Summary and Selected Data" report or the full report, contact Ms. Penny Dalziel, 71 East Avenue, Suite S, Norwalk, CT 06851-4903, Phone: 203-852-7168, Fax: 203-838-5714.

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TABLE 1 **Attachment E (continued)**

ALL RESPONDENTS:

	FY 1992 Royalties Received	FY 1992 Licenses Generating Royalties	FY 1992 Professional FTEs for Licensing	FY 1992 Legal Fees Expended	FY 1992 Legal Fees Reimbursed	FY 1992 Invention Disclosures Received	FY 1992 Total Patent Filings	FY 1992 Patents Issued	FY 1992 Licenses & Options Executed	Total Active Licenses & Options
U. S. UNIVERSITIES	$172,681,192	2,632	203.60	$37,733,990	$12,608,911	5,645	2,329	1,112	1,387	5,518
U. S. HOSPITALS	$44,010,748	201	22.20	$6,419,010	$2,624,126	500	381	57	168	636
CANADIAN INSTITUTIONS (US $)	$4,153,047	158	17.75	$698,829	$235,950	284	60	37	54	261
OTHER RESPONDENTS										
Government	$11,979,095	9	26.50	$4,485,228	$70,000	364	359	0	93	23
Third-Party Patent Management Firms	$50,648,801	142	13.50	$3,071,586	$156,671	784	97	0	13	25
Research Institutes	$14,832,521	35	3.25	$416,429	$62,871	27	25	4	16	76
TOTAL ALL RESPONDENTS	$298,305,404	3,177	286.80	$52,825,072	$15,758,529	7,604	3,251	1,210	1,731	6,539

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TABLE 1 **Attachment E (continued)**

(Ranked By FY 1992 Royalties Received)

CANADIAN INSTITUTIONS: Name of Institution	FY 1992 Royalties Received (US $)	FY 1992 Licenses Generating Royalties	FY 1992 Professional FTEs for Licensing	FY 1992 Legal Fees Expended (US $)	FY 1992 Legal Fees Reimbursed (US $)	FY 1992 Invention Disclosures Received	FY 1992 Total Patent Filings	FY 1992 Patents Issued	FY 1992 Licenses & Options Executed	Total Active Licenses & Options
Univ. of Waterloo	$1,600,000	40	1.50	$155,200	$32,000	N. Avail.	8	3	12	60
Univ. of Toronto	$920,000	17	3.00	N. Avail.	$26,400	97	24	1	11	40
Queen's University	$608,388	10	3.00	$80,093	$4,830	33	14	4	5	22
Univ. of British Columbia	$604,357	65	4.00	$110,679	$6,400	80	N. Avail.	17	10	50
Univ. of Alberta	$332,000	15	3.00	$156,000	$128,000	34	5	5	3	60
Mount Sinai Hospital	$69,902	5	1.00	$120,105	$38,320	11	7	N. Avail.	4	5
Carleton University	$12,000	4	2.00	$16,800	$0	10	1	3	1	11
Univ. of Western Ontario	$6,400	2	0.20	N. Avail.	N. Avail.	10	N. Avail.	2	1	0
Concordia University	$0	0	0.00	$11,952	$0	6	1	1	0	0
Name Confidential	N. Avail.	N. Avail.	0.05	$48,000	N. Avail.	3	0	1	7	13
TOTAL CANADIAN INSTITUTIONS	$4,153,047	158	17.75	$698,829	$235,950	284	60	37	54	261

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TABLE 1 **Attachment E (continued)**

(Ranked By FY 1992 Royalties Received)

U. S. UNIVERSITIES (continued):

Name of Institution	FY 1992 Royalties Received	FY 1992 Licenses Generating Royalties	FY 1992 Professional FTEs for Licensing	FY 1992 Legal Fees Expended	FY 1992 Legal Fees Reimbursed	FY 1992 Invention Disclosures Received	FY 1992 Total Patent Filings	FY 1992 Patents Issued	FY 1992 Licenses & Options Executed	Total Active Licenses & Options
Ball State University	$52,800	3	0.50	N. Avail.	N. Avail.	2	2	N. Avail.	1	4
Florida Atlantic University	$50,000	1	0.50	$12,000	$0	5	3	N. Avail.	4	2
Univ. of South Florida	$44,851	7	2.00	$148,367	$5,088	25	10	5	3	10
Loyola University of Chicago	$37,000	2	0.00	$80,000	$0	10	5	1	0	2
Name Confidential	$25,000	2	1.00	$250,000	N. Avail.	24	20	11	2	4
Univ. of Miami	$24,838	3	0.50	$53,000	$840,236	23	13	5	15	43
Name Confidential	$10,600	2	0.25	$49,700	$10,500	23	10	3	4	8
Name Confidential	$10,000	1	0.00	$2,400	$2,400	6	1	N. Avail.	2	5
Name Confidential	$10,000	2	0.20	$3,000	$0	4	0	N. Avail.	0	2
Rice University	$7,000	1	0.10	N. Avail.	N. Avail.	10	3	N. Avail.	0	1
San Diego State University	$4,000	1	0.10	$5,000	$0	4	1	N. Avail.	1	1
Univ. of Maine	$3,500	3	0.00	$0	$0	2	0	N. Avail.	3	4
Name Confidential	$900	4	0.75	$0	N. Avail.	27	9	N. Avail.	0	2
Name Confidential	$0	0	0.30	$130,500	$0	8	11	2	0	3
Medical College of Pennsylvania	$0	0	0.10	N. Avail.	N. Avail.	6	2	1	0	0
New Jersey Institute of Technology	$0	0	1.00	N. Avail.	N. Avail.	18	4	1	0	0
Northern Illinois University	$0	0	1.00	$4,213	$0	2	1	N. Avail.	0	1
Mississippi State University	N. Avail.	N. Avail.	1.00	$4,000	$0	18	1	N. Avail.	3	3
Name Confidential	N. Avail.	N. Avail.	0.50	N. Avail.	N. Avail.	N. Avail.	5	1	2	7
TOTAL U. S. UNIVERSITIES	$172,681,192	2,632	203.60	$37,733,990	$12,608,911	5,645	2,329	1,112	1,387	5,518

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TABLE 1 **Attachment E**

(Ranked By FY 1992 Royalties Received)

U. S. UNIVERSITIES: Name of Institution	FY 1992 Royalties Received	FY 1992 Licenses Generating Royalties	FY 1992 Professional FTEs for Licensing	FY 1992 Legal Fees Expended	FY 1992 Legal Fees Reimbursed	FY 1992 Invention Disclosures Received	FY 1992 Total Patent Filings	FY 1992 Patents Issued	FY 1992 Licenses & Options Executed	Total Active Licenses & Options
Univ. of California System	$26,416,218	254	32.00	$7,488,876	$2,643,955	352	197	81	54	258
Stanford University	$25,450,000	165	9.50	$1,800,000	$486,061	177	70	44	128	725
Columbia University	$14,357,752	117	5.00	$1,129,069	$49,585	73	18	18	30	216
Michigan State University	$13,295,620	25	1.00	$390,110	$129,116	39	34	20	4	58
Wisconsin Alumni Research Foundation (WARF)	$12,489,683	77	3.00	$1,547,996	N. Avail.	140	67	43	19	35
Massachusetts Inst. of Technology (MIT)	$11,680,000	174	8.00	$2,880,000	$447,200	291	143	126	78	278
Univ. of California, Los Angeles	$5,872,116	12	4.50	$897,810	$608,029	90	27	N. Avail.	14	18
Univ. of Florida	$5,159,791	35	1.00	$739,583	N. Avail.	74	34	50	19	99
Univ. of Rochester	$3,953,605	13	0.75	$265,919	$155,877	40	13	10	13	35
Harvard University	$3,200,000	90	8.00	$910,000	$360,000	87	73	19	55	180
Univ. of Washington	$3,000,000	89	4.00	$881,000	$454,000	141	32	11	21	89
Tulane University	$2,800,000	6	2.00	$175,000	$12,445	21	15	N. Avail.	5	45
Name Confidential	$2,634,807	17	2.00	$231,771	$34,505	28	14	10	8	28
Rutgers, The State University of NJ	$2,240,916	46	3.50	$417,861	$228,933	46	29	12	21	79
Johns Hopkins University	$2,215,494	76	6.00	N. Avail.	N. Avail.	213	N. Avail.	20	37	169
Washington University	$2,063,723	49	1.75	$400,000	$300,000	50	40	18	54	155
Cornell Research Fndtn., Inc.	$1,922,818	144	4.00	$1,038,214	$373,285	174	124	43	61	363
Georgia Institute of Technology	$1,758,884	21	1.00	$358,596	$16,460	72	24	N. Avail.	30	41
Clemson University	$1,648,757	2	1.00	$231,634	$20,930	28	17	10	2	7
Baylor College of Medicine	$1,584,000	34	2.00	$444,000	N. Avail.	98	24	8	18	67
Name Confidential	$1,500,000	N. Avail.	1.50	$222,263	$86,944	33	14	9	13	15
Univ. of Missouri System	$1,432,457	13	0.75	$102,183	$30,521	53	9	10	12	35
Univ. of Utah	$1,240,229	43	2.00	$214,532	$58,200	124	37	14	36	95
Ohio State University	$1,200,000	20	2.00	$325,000	$34,000	61	20	21	30	76
Univ. of Michigan	$1,167,600	53	6.00	$761,232	$339,019	95	71	22	28	73
Name Confidential	$1,150,000	18	0.25	$415,000	$47,000	310	34	36	5	25
North Carolina State University	$1,100,815	10	1.50	$369,550	$246,370	75	42	24	16	50
Univ. of Texas Southwestern	$1,100,000	21	1.20	$760,000	$300,000	37	39	N. Avail.	11	57
Name Confidential	$1,000,100	20	4.00	$1,500,000	$500,000	119	60	26	13	36
Name Confidential	$853,938	45	1.50	$509,430	$185,673	89	50	10	31	184
Univ. of Colorado	$840,680	37	2.00	$245,533	$118,634	55	22	20	4	40
Univ. of Texas at Austin	$835,432	90	2.00	N. Avail.	N. Avail.	64	27	N. Avail.	34	90
Name Confidential	$763,305	72	2.00	$241,942	$179,030	70	29	5	14	162
Yale University	$738,000	48	2.50	$162,000	$35,000	78	43	13	16	137
Name Confidential	$700,000	N. Avail.	4.00	$200,000	$100,000	N. Avail.	N. Avail.	12	N. Avail.	27
Univ. of Illinois at Chicago	$660,000	9	3.00	$174,000	$16,000	22	8	11	5	19
Univ. of Minnesota	$613,320	46	5.00	$949,277	$240,306	149	52	32	46	208
Brigham Young University	$608,226	31	2.00	$44,523	$29,499	14	9	10	20	65
Penn State University	$507,456	35	3.00	$163,814	$47,741	119	31	N. Avail.	14	N. Avail.

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Attachment C

LIST OF TABLES (FULL REPORT)*

Table 1 Royalties Received in Fiscal Year 1992 and Facts & Figures

Table 2 Professional and Support Staff FTEs for Technology Transfer and Licensing Activities

Table 3 Fiscal Year 1991 Sponsored Funding Levels

Table 4 Fiscal Year 1992 Sponsored Funding Levels

Table 5 Licenses & Options Executed for Fiscal Year 1991 and Fiscal Year 1992

Table 6 Gross Royalties Received for Fiscal Year 1991 and Fiscal Year 1992

Table 7 Licenses & Options Generating Royalties for Fiscal Year 1991 and Fiscal Year 1992

Table 8 Legal Fees Expended for Fiscal Year 1991 and Fiscal Year 1992

Table 9 Legal Fees Reimbursed for Fiscal Year 1991 and Fiscal Year 1992

Table 10 Invention Disclosures Received for Fiscal Year 1991 and Fiscal Year 1992

Table 11 Total Patent Filings for Fiscal Year 1991 and Fiscal Year 1992

Table 12 New Patent Filings for Fiscal Year 1991 and Fiscal Year 1992

**** As stated in the Foreword, the full report is available separately.***

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Attachment A

DEFINITIONS

The following definitions were used to clarify these data elements requested on the "AUTM Licensing Survey."

The first two definitions relate to the FTE staffing levels. Definitions were provided for technology transfer and technology licensing to assist technology transfer managers in identifying the full-time equivalent (FTE) positions with each activity.

Technology Transfer: Technology Transfer includes those activities associated with both technology licensing (see definition below) and industry research agreements.

Technology Licensing: Technology Licensing includes activities associated with the evaluation and marketing of technology (including trademarks but not university's insignia) and intellectual property management, and those of license administration. It does not include activities associated with industry research agreements.

Private Industry: Support from private industry includes total awards by corporations in support of a university's research activities, but should not include the amount of support from pharmaceutical companies for clinical trial agreements.

Royalties: Royalties include: license issue fees, payments under options, annual minimums, running royalties, termination payments, the amount of equity received when cashed-in, and software end user license fees equal to $1,000 or more, but not research funding, patent reimbursement fees, a valuation of equity not cashed-in, software end user license fees less than $1,000, or trademark licensing royalties from university insignia.

The following definitions were provided to ensure consistency among the respondents when delineating between total patent filings and new patent filings:

Total U. S. Patent Applications Filed: Total U. S. Patent Applications Filed includes any filing during the year requested, including continuations-in-part (CIPs), continuations, divisionals, and reissues.

New U. S. Patent Applications Filed: New U. S. Patent Applications Filed is a subset of Total U. S. Patent Applications filed. It does not include continuations, divisionals, or reissues, and typically does not include CIPs. A CIP may only be counted as a new invention if filed with substantially new matter.

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Averages have been calculated on each of these quarter segments. The tables for Canadian Institutions have been modified, when necessary, to include two separate columns: one for U.S. dollar totals and a second for Canadian dollar totals.[3]

It is difficult to develop well-founded truths or even to hypothesize on the survey results, since two years of complete data does not provide sufficient information for trends. Some powerful numbers, however, are reflected in the total gross royalties received of $259,305,404[4] for Fiscal Year 1992. Of these gross royalties, U. S. universities and U. S. hospitals account for 81% of the total. Summary totals for Fiscal Year 1992 are noted in Attachment D[5], and selected data from the full report are provided in Attachment E.[6,7,8]

Subsequent Survey(s)

The "AUTM Licensing Survey" will be administered on an annual basis. In addition, the Association of University Technology Managers, Inc. has approved the administration of a follow-up survey, entitled the "AUTM Public Benefits Survey." This survey is designed to give technology transfer managers an opportunity to report discoveries or inventions that have been licensed within the past ten years and are currently on the market, generating sales. The summary report developed from the "AUTM Public Benefits Survey" will provide concrete examples of the fact that the U. S. institutions are carrying out the mandate of the Bayh-Dole Act, and achieving the goals it envisioned. This survey is currently underway and is scheduled for completion by November 30, 1993.

NOTES

1. *An AUTM Full Member is defined by the "By-Laws of the Association of University Technology Managers, Inc." under Article 1: Categories of Memberships and includes: a) institutions of higher education or teaching hospitals; and b) individuals regularly engaged by such institutions to manage their intellectual property.*

2. *As defined by AUTM By-Laws, affiliate members include those organizations other than institutions of higher education or teaching hospitals, such as not-for-profit research firms, profit-making organizations, government agencies, etc., that manage intellectual property and interact with institutions of higher education or teaching hospitals.*

3. *The rates used for the conversion from Canadian to U.S. dollars are $1.20 for Fiscal Year 1991 and $1.25 for Fiscal Year 1992, reflecting the annual average exchange rate for these years. These rates were provided by Dr. James W. Murray, AUTM Vice President-Canada, and Director, Industry Liaison, The University of British Columbia.*

4. *The gross royalties received for both Fiscal Years 1991 and 1992 ($235,516,739 and $298,305,404, respectively) reflect royalties distributed by Research Corporation Technologies to universities ($29 Million in FY 1991 and $32 Million in FY 1992), and royalties distributed by Stanford University to the University of California System (approximately $7 Million in each Fiscal Year). The universities that received these royalties from Research Corporation Technologies also reported them under the "AUTM Licensing Survey" as royalties received for the respective university. In addition, both Stanford University and the University of California System ("UC System") included the funds apportioned to the UC System from Stanford*

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