

Universities Gain from Licensing Activity

December 20, 2010

Although economic growth stagnated in 2009, a new survey says scientific research from about 150 universities created 555 startup companies and resulted in over 4,500 patent optioning and licensing deals last year, earning \$1.8 billion in payouts for the institutions in the process. The numbers continue a decade-long trend of the increased role of universities in generating commercial products for businesses.

"Technology transfer" -- as the process of universities commercializing their findings is known -- allows businesses to turn the fruits of academic research into new technologies, such as new drugs and energy-saving products. In return, universities collect licensing fees or royalties, or a partial ownership stake in a product. Universities also typically have a small staff dedicated to brokering deals on hand -- not an insignificant source of employment itself.

he Association of University Technology Managers, which conducted the survey, found across-the-board gains in almost all areas examined. Staffing, non-"royalty buyout" licensing, and optioning all showed nontrivial increases. Startup creation held steady from 2008 -- but, because fewer institutions participated in this year's survey, there was growth in relative numbers.

Comparisons from year to year are dicey for the AUTM survey, because the roster of participating institutions changes. That caution aside, total licensing income rose to \$1.76 billion in 2009 from \$1.3 billion in 2008, about a 35 percent increase.

In 2009, technology transfers resulted in the creation of 555 companies -- about the same as in 2008. The number of employees working on university licensing increased slightly from 1,039.34 reported in 2008, to 1,049.76 in 2009.

The number of patent applications by universities and medical research institutions in 2009 dipped to 12,109 from 12,194 in 2008 -- a small decline in absolute numbers. But again, those figures come from a smaller pool of universities, and in terms of number per institution, the data show an increase.

In 1991, only about 1,500 patents were filed by institutions. By 2002, that number had risen to about 6,500. Today's much greater figure tracks the general trend: investors like what they see happening on campus.

Licensing Income and Other Data on University Technology Transfer, 2009

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				Patent	2009
T	2009 Research	Start-	Licenses	Applicati	Licensing
Institution	Spending	Ups		ons	Income
Northwestern U	\$400,012,497	3	31	168	\$161,591,544
Columbia U	604,660,000	13	51	202	154,257,579
New York U	308,834,000	5	38	50	113,110,437
U of California System	4,686,598,210	47	237	928	103,104,667
Wake Forest U	162,084,439	3	8	N.A.	95,636,362
U of Minnesota	590,880,956	3	53	65	95,168,525
U of Washington/Washington Research Fdn.	1,076,044,801	10	231	145	87,339,905
U of Massachusetts	489,060,000	1	50	85	70,553,428
Massachusetts Inst. of Technology	1,375,073,000	18	91	509	66,450,000
Stanford U	733,266,108	9	77	221	65,054,187
U of Wisconsin at Madison	1,132,000,000	1	57	129	56,714,000
U of Florida	496,063,499	10	115	180	53,880,476
California Inst. of Technology	521,436,800	18	37	381	47,665,535
U of Rochester	377,246,000	2	15	63	46,025,270
U of Iowa Research Fdn.	334,936,000	3	21	18	42,922,081
U of Texas System	2,272,779,788	22	161	330	32,428,040
U of Georgia	349,730,000	6	124	71	30,531,425
Mount Sinai School of Medicine of NYU	321,299,455	-	8	36	25,081,703
Duke U	709,803,045	4	97	155	19,048,244
U of Michigan	1,016,565,913	8	78	153	18,311,368
Case Western Reserve U	332,661,000	5	31	104	16,281,957
Research Foundation of SUNY	849,961,108	5	49	140	16,205,537
Emory U	416,476,261	1	36	53	15,034,198
U of Illinois (Chicago, Urbana- Champaign)	905,365,000	8	49	132	13,364,056
U of Utah	354,653,777	19	79	108	12,422,572
Johns Hopkins U	1,242,316,445	10	99	458	12,387,415

Harvard U	705,074,000	8	65	175	12,308,207
U of Pennsylvania	760,836,000	4	62	517	11,658,000
Vanderbilt U	457,357,428	1	46	64	11,329,700
U of Missouri, all campuses	339,124,184	5	79	48	10,400,726
Texas A&M U System	630,655,000	6	63	63	9,897,559
Tulane U	130,908,211	-	2	12	9,366,708
Georgetown U	230,637,658	-	11	50	9,222,996
U of Chicago/UCTech	336,155,979	-	16	29	9,025,392
Iowa State U	253,323,000	1	82	32	8,832,802
Baylor College of Medicine	305,687,000	-	56	14	8,809,000
Tufts U	172,866,529	-	9	20	8,390,154
Rutgers U	236,502,404	5	87	60	8,128,609
Carnegie Mellon U	232,992,000	10	19	49	8,041,047
U of Oregon	110,321,683	1	33	3	7,188,653
Ohio U	41,256,000	-	1	49	6,875,069
Louisiana State U System	401,306,000	6	17	65	6,349,177
U of Virginia Patent Fdn.	261,604,000	2	57	161	6,347,487
Washington U of St. Louis	567,383,000	2	53	106	6,301,462
Indiana U (ARTI)	422,084,735	6	30	72	5,952,499
Loyola U of Chicago	36,519,094	-	-	8	5,772,000
Thomas Jefferson U	94,784,221	-	18	16	5,531,467
Cornell Research Fdn., Inc.	687,430,951	3	23	129	5,100,407
North Carolina State U	380,600,000	4	91	118	4,930,022
Michigan State U	373,184,000	-	44	60	4,449,445
U of Colorado	718,000,000	11	62	118	4,430,040
U of Southern California	533,040,769	5	13	120	4,399,006
Purdue Research Fdn.	524,117,000	10	85	137	4,201,112
U of Pittsburgh	653,925,000	3	41	105	4,129,172
U of North Carolina, Chapel Hill	666,871,589	1	72	61	3,063,947
Albert Einstein College of Med/Yeshiva U	142,966,051	2	10	8	2,966,838
Clemson U	140,969,423	-	13	64	2,837,226
Colorado State U	311,720,381	1	22	65	2,776,439
Brigham Young U	27,299,213	9	27	74	2,687,163
U of Alabama Birmingham Research Fdn.	431,732,000	5	29	31	2,668,761
U of South Alabama	32,882,000	-	1	4	2,553,723
Georgia Inst. of Technology	581,278,634	9	65	239	2,411,613

209,061,000	4	27	25	2,407,725
817,083,316	7	44	145	2,392,959
374,822,789	6	32	139	2,273,608
211,519,580	6	35	86	2,022,510
99,262,000	3	6	17	1,952,557
254,006,785	5	49	126	1,878,749
145,953,505	1	9	26	1,833,707
371,652,029	4	23	45	1,776,497
716,461,278	7	27	61	1,711,719
248,952,000	14	19	37	1,700,000
284,211,680	2	16	146	1,609,779
113,214,000	-	96	24	1,539,570
105,116,954	-	6	17	1,509,490
N.A.	3	57	36	1,492,748
163,066,112	3	14	23	1,469,443
318	4	20	117	1,442,697
22,616,538	1	-	2	1,412,242
207,115,000	2	14	81	1,406,616
	817,083,316 374,822,789 211,519,580 99,262,000 254,006,785 145,953,505 371,652,029 716,461,278 248,952,000 284,211,680 113,214,000 105,116,954 N.A. 163,066,112 318 22,616,538	817,083,316 374,822,789 6 211,519,580 6 99,262,000 3 254,006,785 145,953,505 1 371,652,029 4 716,461,278 7 248,952,000 14 284,211,680 2 113,214,000 - 105,116,954 - N.A. 3 163,066,112 318 4 22,616,538 1	817,083,316 7 44 374,822,789 6 32 211,519,580 6 35 99,262,000 3 6 254,006,785 5 49 145,953,505 1 9 371,652,029 4 23 716,461,278 7 27 248,952,000 14 19 284,211,680 2 16 113,214,000 - 96 105,116,954 - 6 N.A. 3 57 163,066,112 3 14 318 4 20 22,616,538 1 -	817,083,316 7 44 145 374,822,789 6 32 139 211,519,580 6 35 86 99,262,000 3 6 17 254,006,785 5 49 126 145,953,505 1 9 26 371,652,029 4 23 45 716,461,278 7 27 61 248,952,000 14 19 37 284,211,680 2 16 146 113,214,000 - 96 24 105,116,954 - 6 17 N.A. 3 57 36 163,066,112 3 14 23 318 4 20 117 22,616,538 1 - 2

Source: Association of University Technology Managers

[—] Sam Petulla

Comments on Universities Gain from Licensing Activity

Unanswered questions

Posted by Jim Farmer, Researcher at instructional media + magic inc. on December 21, 2010 at 3:45pm EST

Would society have a greater return if university research were made widely and immediately available for further development? What are the costs to the university and higher education of the secrecy, ligation, and relationship with firms that result from patent processes? Would technology managers better serve their institution by encouraging adoption and utilization of university research rather than patent enforcement?

Current research would suggest society--as measured by gross domestic product--would increase more from "open innovation." Products which require clinical trials are always an exception and need patent protection to encourage the large and risky costs associated with the few profitable products.

The University of Glasgow seems to have it right--encourage industry utilization of their research.