

General Analysis – Research

Research is not only a measure of faculty innovation, competitiveness and productivity, but also an economic driver for Texas. U. T. System research expenditures from all sources were \$2.17 billion in FY 2008. Federal research expenditures increased by 26.0 percent, from almost \$976 million in FY 2004 to \$1.23 billion in FY 2008.

- Between FY 2004 and FY 2008, total research expenditures increased by almost \$175 million at M. D. Anderson, \$145 million at U. T. Austin and \$64 million at U. T. Health Science Center – San Antonio.
- In FY 2008, federal research expenditures accounted for 56.7 percent, private research expenditures accounted for 19.3 percent and state expenditures accounted for 17.0 percent of total U. T. System research expenditures.
- Between FY 2004 and FY 2008, federal research expenditures increased by 43.4 percent at academic institutions and by 17.6 percent at health institutions.

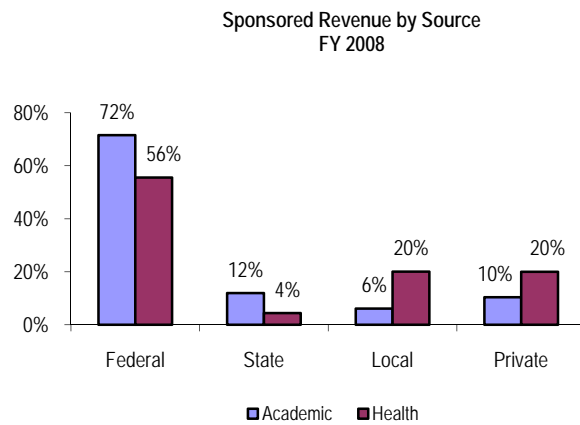
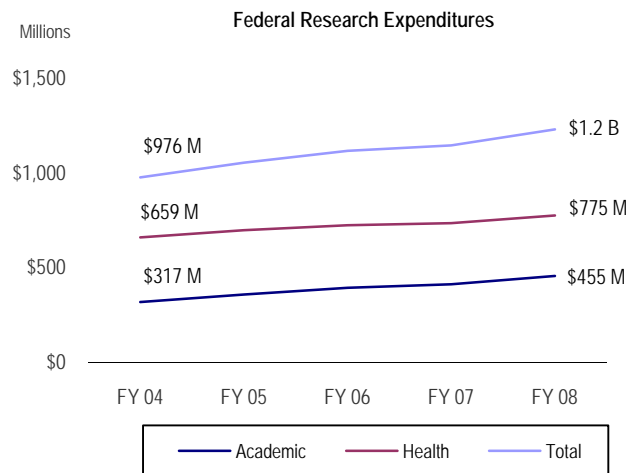
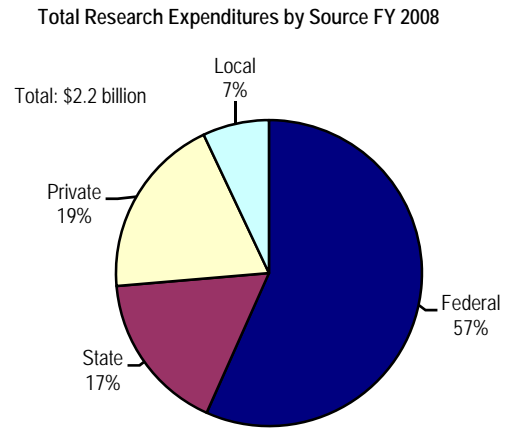
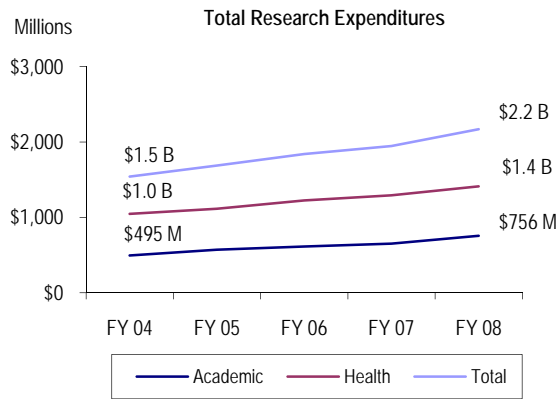
Sponsored revenue is a more comprehensive measure of an institution's overall success in securing funding to support research, public service, training and other activities. In FY 2008, U. T. System institutions received more than \$2.44 billion from all sources, an increase of 27.3 percent from \$1.92 billion in FY 2004.

- Sponsored revenue received from federal sources accounted for 61.9 percent of the total while 14.5 percent came from local sources, 16.2 percent came from private sources and 7.4 percent came from state sources.
- Between FY 2004 and FY 2008, sponsored revenue at health institutions increased by 24.7 percent and increased by 31.5 percent at academic institutions.

Another measure of research productivity is the number external research grants held by tenured and tenure-track faculty, the percentage of faculty holding such grants and the average number of research dollars per full-time equivalent (FTE) tenured/tenure-track faculty. At the U. T. System health institutions, research grants are also held by non-tenured research faculty.

- Between FY 2004 and FY 2008, the number of research grants increased at seven of the nine academic institutions and the percentage of tenured and tenure-track faculty holding grants also increased at six of the nine institutions.
- In FY 2008, more than one-third of the tenured/tenure-track faculty held research grants at U. T. Arlington, U. T. Austin, U. T. Dallas, U. T. El Paso, and U. T. Permian Basin and research expenditures per FTE tenured/tenure-track faculty averaged more than \$100,000 at each of these institutions except U. T. Permian Basin.
- Research expenditures per FTE tenured/tenure-track faculty increased at every health institution between FY 2004 and FY 2008 and averaged over \$350 thousand at five of the six health institutions in FY 2008.

Research Information



RESEARCH EXPENDITURES BY SOURCE, FY 2007-2008
Academic and Health Institutions

	Federal	State	Private	Local	Total
Arlington	\$20,979,533	\$25,140,141	\$8,594,865	\$11,895,995	\$66,610,534
Austin	351,536,801	54,660,387	78,316,924	42,627,210	527,141,322
Brownsville	4,371,431	804,018	74,513	672,683	5,922,645
Dallas	21,383,917	18,040,209	13,209,871	6,666,871	59,300,868
El Paso	26,995,790	8,252,141	5,423,349	7,236,479	47,907,759
Pan American	4,731,301	2,397,266	1,050,596	299,373	8,478,536
Permian Basin	313,608	742,792	535,310	1,451,388	3,043,098
San Antonio	22,574,016	7,056,614	2,626,234	2,344,581	34,601,445
Tyler	1,791,887	1,367,702	256,297	10,573	3,426,459
Academic Total	\$454,678,284	\$118,461,270	\$110,087,959	\$73,205,153	\$756,432,666
SWMC-Dallas	\$201,479,983	\$49,262,039	\$104,906,237	\$15,453,241	\$371,101,500
UTMB-Galveston	122,009,456	6,667,708	22,709,166	2,074,954	153,461,284
HSC-Houston	129,276,731	37,012,035	26,382,698	4,580,285	197,251,749
HSC-San Antonio	120,810,903	4,979,487	39,044,507	23,785,900	188,620,797
M.D. Anderson	194,889,145	149,429,120	114,143,556	30,193,006	488,654,827
HSC-Tyler	6,422,350	2,339,673	2,019,689	2,920,867	13,702,579
Health Total	\$774,888,568	\$249,690,062	\$309,205,853	\$79,008,253	\$1,412,792,736
System Total	\$1,229,566,852	\$368,151,332	\$419,293,812	\$152,213,406	\$2,169,225,402

Notes:

Research expenditures are monies spent to support research activities and are funded by government and private entities and include indirect costs and pass-throughs to institutions. Research is systematic study directed toward fuller scientific knowledge or use of knowledge directed toward the production of useful materials, devices, systems or methods including design and development of prototypes and processes.

Source: "Survey of Research Expenditures", Texas Higher Education Coordinating Board

**RESEARCH EXPENDITURES
 Academic and Health Institutions**

FY	03-04	04-05	05-06	06-07	07-08
Arlington	\$22,417,130	\$33,826,960	\$34,865,068	\$39,624,428	\$66,610,534
Austin	382,391,771	422,867,712	446,686,603	476,282,230	527,141,322
Brownsville	3,273,326	5,374,665	5,890,444	5,405,367	5,922,645
Dallas	31,274,590	43,110,799	43,085,236	46,477,208	59,300,868
El Paso	32,067,735	36,013,585	41,933,182	42,046,816	47,907,759
Pan American	4,309,262	5,816,164	6,790,592	7,209,473	8,478,536
Permian Basin	1,895,564	1,160,694	2,377,656	1,647,154	3,043,098
San Antonio	16,516,457	23,605,844	32,316,849	32,320,711	34,601,445
Tyler	894,034	501,301	915,024	1,444,316	3,426,459
SWMC-Dallas	314,403,028	320,801,884	333,256,162	341,110,600	\$371,101,500
UTMB-Galveston	132,768,911	149,957,462	155,036,202	156,103,865	153,461,284
HSC-Houston	150,222,206	156,519,695	175,153,808	191,724,126	197,251,749
HSC-San Antonio	124,912,722	134,058,535	139,778,732	146,338,142	188,620,797
M.D. Anderson	313,916,355	341,978,679	409,679,711	444,932,707	488,654,827
HSC-Tyler	10,240,390	11,420,260	12,598,871	13,550,150	13,702,579

Note:

Research expenditures include indirect costs and pass-throughs to institutions.

In FY 2007-08, Arlington reclassified a portion of faculty and GRA salaries to more appropriately reflect time spent on research.

**RATIO RESEARCH EXPENDITURES PER FULL-TIME EQUIVALENT
 TENURED/TENURE-TRACK FACULTY
 Academic and Health Institutions**

FY	03-04	04-05	05-06	06-07	07-08
Arlington	\$45,656	\$67,250	\$66,410	\$72,839	\$117,066
Austin	225,201	242,331	257,753	267,574	293,509
Brownsville	14,613	22,774	22,743	18,575	20,283
Dallas	109,735	142,751	141,728	142,568	190,067
El Paso	78,024	82,981	93,810	96,438	107,900
Pan American	11,904	15,593	17,062	25,296	29,439
Permian Basin	26,698	13,341	27,019	18,933	35,801
San Antonio	39,991	53,286	68,323	66,231	68,382
Tyler	6,252	3,342	5,791	9,258	22,395
SWMC-Dallas	890,660	867,032	881,630	883,706	896,380
UTMB-Galveston	268,220	304,173	311,318	324,540	415,884
HSC-Houston	327,281	354,117	404,512	480,512	477,607
HSC-San Antonio	243,970	251,990	281,812	290,353	366,967
M.D. Anderson	557,578	585,580	666,146	709,622	793,271
HSC-Tyler*	97,528	116,533	122,319	144,151	153,962

Note:

*HSC-Tyler calculations are based on Non-tenured faculty.

Full-time Equivalent Tenured/Tenure-Track Faculty data can be referenced in the 'Faculty and Staff' section.

Source: "Survey of Research Expenditures", Texas Higher Education Coordinating Board

FEDERAL RESEARCH EXPENDITURES
Academic and Health Institutions

FY	03-04	04-05	05-06	06-07	07-08	% Change FY 07 to 08
Arlington	\$11,093,256	\$17,833,042	\$19,095,309	\$20,259,415	\$20,979,533	3.6%
Austin	249,014,154	269,612,823	294,832,202	314,130,646	351,536,801	11.9
Brownsville	2,889,894	4,897,516	5,131,456	4,664,251	4,371,431	-6.3
Dallas	15,733,571	19,933,291	19,953,502	17,782,702	21,383,917	20.3
El Paso	22,232,318	23,961,812	26,821,331	27,094,552	26,995,790	-0.4
Pan American	2,666,191	3,770,457	4,237,445	4,182,243	4,731,301	13.1
Permian Basin	1,215,420	360,016	348,266	147,220	313,608	113.0
San Antonio	11,705,185	16,174,944	21,463,037	21,669,297	22,574,016	4.2
Tyler	585,874	143,425	438,123	936,661	1,791,887	91.3
Academic Total	\$317,135,863	\$356,687,326	\$392,320,671	\$410,866,987	\$454,678,284	10.7%
SWMC-Dallas	\$200,887,545	\$202,057,099	\$196,622,021	\$191,686,904	\$201,479,983	5.1%
UTMB-Galveston	102,490,775	117,235,448	120,407,805	118,172,604	122,009,456	3.2
HSC-Houston	110,438,174	116,397,631	122,870,079	131,879,012	129,276,731	-2.0
HSC-San Antonio	89,661,741	95,125,850	95,110,395	95,132,294	120,810,903	27.0
M.D. Anderson	150,528,694	160,953,856	182,028,411	190,508,252	194,889,145	2.3
HSC-Tyler	4,659,021	4,956,399	6,512,656	6,742,353	6,422,350	-4.7
Health Total	\$658,665,950	\$696,726,283	\$723,551,367	\$734,121,419	\$774,888,568	5.6%
System Total	\$975,801,813	\$1,053,413,609	\$1,115,872,038	\$1,144,988,406	\$1,229,566,852	7.4%

Notes:

Federal research expenditures are monies spent to support research activities and are funded by federal governmental entities in the form of contracts, grants and agreements, including indirect costs and federal monies passed through state agencies. Federal Research expenditures are considered a national benchmark to measure institutions' research success.

Source: "Survey of Research Expenditures", Texas Higher Education Coordinating Board

SPONSORED REVENUE BY SOURCE, FY 2007-2008
Academic and Health Institutions

(\$ in thousands)

	Federal	State	Local	Private	Total
Arlington	\$46,874	\$7,651	\$653	\$7,382	\$62,560
Austin	395,021	51,092	4,865	76,570	527,548
Brownsville	34,308	4,273	51,918	331	90,830
Dallas	29,819	4,411	304	5,441	39,975
El Paso	65,093	13,191	1,171	5,218	84,673
Pan American	48,646	21,695	16	2,285	72,642
Permian Basin	5,629	552	21	370	6,572
San Antonio	64,493	11,539	665	2,990	79,687
Tyler	8,426	2,035	2	960	11,423
Academic Total	\$698,308	\$116,438	\$59,615	\$101,547	\$975,909
SWMC-Dallas	\$207,349	\$3,817	\$110,464	\$64,839	\$386,469
UTMB-Galveston	125,987	33,977	6,614	92,107	258,685
HSC-Houston	142,326	20,515	105,915	21,157	289,913
HSC-San Antonio	137,026	5,070	70,004	43,294	255,394
M.D. Anderson	193,842	341	0	70,310	264,494
HSC-Tyler	9,120	1,268	1,612	2,097	14,097
Health Total	\$815,650	\$64,988	\$294,608	\$293,805	\$1,469,051
System Total	\$1,513,958	\$181,426	\$354,223	\$395,352	\$2,444,960

Notes:

Sponsored Revenue are monies received from governmental and private entities to support services performed on grants, contracts and agreements, including indirect cost recoveries and pass-throughs to institutions. Sponsored revenue is a comprehensive measure of an institution's overall success in securing funding to support research, public service, training and other activities.

Source: Exhibit B of Annual Financial Report (AFR)

FACULTY HOLDING EXTRAMURAL GRANTS Academic Institutions

	AY	03-04	04-05	05-06	06-07	07-08
Arlington	# grants	268	210	282	303	269
	# T/TT faculty holding grants	133	123	211	205	205
	# FTE T/TT faculty	491	503	525	544	569
	% T/TT faculty holding grants	27%	24%	40%	38%	36%
Austin	# grants	2,538	2,643	2,590	2,912	3,037
	# T/TT faculty holding grants	647	604	773	690	738
	# FTE T/TT faculty	1,698	1,745	1,733	1,780	1,796
	% T/TT faculty holding grants	38%	35%	45%	39%	41%
Brownsville	# grants	56	50	51	37	56
	# T/TT faculty holding grants	55	46	47	26	38
	# FTE T/TT faculty	224	236	259	291	292
	% T/TT faculty holding grants	25%	19%	18%	9%	13%
Dallas	# grants	180	327	256	330	369
	# T/TT faculty holding grants	109	142	94	148	141
	# FTE T/TT faculty	285	302	304	326	312
	% T/TT faculty holding grants	38%	47%	31%	45%	45%
El Paso	# grants	222	218	241	300	420
	# T/TT faculty holding grants	80	102	101	177	159
	# FTE T/TT faculty	411	434	447	436	444
	% T/TT faculty holding grants	19%	24%	23%	41%	36%
Pan American	# grants	193	221	181	111	110
	# T/TT faculty holding grants	84	78	93	79	84
	# FTE T/TT faculty	362	373	398	285	288
	% T/TT faculty holding grants	23%	21%	23%	28%	29%
Permian Basin	# grants	16	10	29	41	49
	# T/TT faculty holding grants	8	17	23	28	32
	# FTE T/TT faculty	71	87	88	87	85
	% T/TT faculty holding grants	11%	20%	26%	32%	38%
San Antonio	# grants	207	178	212	332	325
	# T/TT faculty holding grants	93	114	132	163	115
	# FTE T/TT faculty	413	443	473	488	506
	% T/TT faculty holding grants	23%	26%	28%	33%	23%
Tyler	# grants	55	53	78	69	85
	# T/TT faculty holding grants	44	44	69	36	41
	# FTE T/TT faculty	143	150	158	156	153
	% T/TT faculty holding grants	31%	29%	44%	23%	27%

Note:

For multi-investigator grants, only the principle investigator is counted.

The percentage of T/TT faculty holding grants is based on the number of FTE T/TT faculty with an appointment in direct instruction or an administrative appointment which directly supplements the teaching function.

Source: U. T. System Institutions; FTE T/TT faculty numbers are from Texas Higher Education Coordinating Board data

FACULTY HOLDING EXTRAMURAL GRANTS Health Institutions

AY		03-04	04-05	05-06	06-07	07-08
SWMC-Dallas	# grants to T/TT faculty	882	880	907	961	1,111
	# T/TT faculty holding grants	257	264	284	290	296
	# FTE T/TT faculty	353	370	378	386	414
	% T/TT faculty holding grants	73%	71%	75%	75%	71%
	# NT research faculty holding grants	92	125	82	53	52
	# FTE NT research faculty	264	271	295	273	264
	% NT research faculty holding grants	35%	46%	28%	19%	20%
UTMB-Galveston	# grants to T/TT faculty	513	517	421	586	665
	# T/TT faculty holding grants	244	217	211	259	219
	# FTE T/TT faculty	495	493	498	481	369
	% T/TT faculty holding grants	49%	44%	42%	54%	59%
	# NT research faculty holding grants	31	32	80	116	144
	# FTE NT research faculty	126	137	141	136	195
	% NT research faculty holding grants	25%	23%	57%	85%	74%
HSC-Houston	# grants to T/TT faculty	493	525	379	274	487
	# T/TT faculty holding grants	242	209	201	152	243
	# FTE T/TT faculty	459	442	433	399	413
	% T/TT faculty holding grants	53%	47%	46%	38%	59%
	# NT research faculty holding grants	79	39	42	72	94
	# FTE NT research faculty	108	98	105	105	115
	% NT research faculty holding grants	73%	40%	40%	69%	82%
HSC-San Antonio	# grants to T/TT faculty	444	422	494	506	522
	# T/TT faculty holding grants	235	231	245	247	245
	# FTE T/TT faculty	512	532	496	504	514
	% T/TT faculty holding grants	46%	43%	49%	49%	48%
	# NT research faculty holding grants	50	57	51	51	61
	# FTE NT research faculty	50	68	82	99	134
	% NT research faculty holding grants	100%	84%	62%	51%	46%
M.D. Anderson	# grants to T/TT faculty	743	1,032	1,287	1,366	2,199
	# T/TT faculty holding grants	344	374	411	408	445
	# FTE T/TT faculty	563	584	615	627	616
	% T/TT faculty holding grants	61%	64%	67%	65%	72%
	# NT research faculty holding grants	47	69	61	70	96
	# FTE NT research faculty	263	317	302	296	324
	% NT research faculty holding grants	18%	22%	20%	24%	30%
HSC-Tyler	# grants	37	48	43	54	58
	# NT research faculty holding grants	23	28	27	32	28
	# FTE NT research faculty	32	33	35	35	33
	% NT research faculty holding grants	72%	85%	77%	91%	85%

Notes:

For multi-investigator grants, only the principle investigator is counted.

The percentage of T/TT faculty holding grants is based on the number of FTE T/TT faculty with an appointment in direct instruction or an administrative appointment which directly supplements the teaching function.

Non-tenured (NT) research faculty excludes those appointed primarily to teach.

The percentage of NT research faculty holding grants is based on the number of FTE NT research faculty.

M.D. Anderson's "Tenure/tenure-track" equivalent faculty are awarded seven-year term appointments, renewable through a formal promotion and reappointment process. A refinement in data collection resulted in the increase in number of grants to T/TT faculty in AY 2004-05.

UTMB-Galveston, HSC-San Antonio, and HSC-Tyler revised NT research faculty counts based on updated information.

HSC-Houston figures for AY 2004-05, 2005-06 and 2006-07 are under review because of new definitions and will be revised in subsequent reports.

Source: U. T. System Institutions; FTE T/TT faculty numbers are from Texas Higher Education Coordinating Board data

RESEARCH EXPENDITURES AND RESEARCH SPACE Academic Institutions

	FY	Research Expenditures	Research E&G Sq. Ft	Research Expenditures per Research E&G Sq. Ft
Arlington	03-04	\$22,417,130	236,582	\$95
	04-05	33,826,960	236,583	143
	05-06	34,865,068	228,346	153
	06-07	39,624,428	225,174	176
	07-08	66,610,534	204,016	326
Austin	03-04	382,391,771	1,446,135	264
	04-05	422,867,712	1,536,054	275
	05-06	446,686,603	1,526,360	293
	06-07	476,282,230	1,519,016	314
	07-08	527,141,322	1,358,973	388
Brownsville	03-04	3,273,326	N/A	N/A
	04-05	5,374,665	4,892	1,099
	05-06	5,890,444	8,145	723
	06-07	5,405,367	8,145	664
	07-08	5,922,645	7,581	781
Dallas	03-04	31,274,590	145,267	215
	04-05	43,110,799	169,553	254
	05-06	43,085,236	167,249	258
	06-07	46,477,208	180,015	258
	07-08	59,300,868	224,500	264
El Paso	03-04	32,067,735	157,087	204
	04-05	36,013,585	160,527	224
	05-06	41,933,182	163,628	256
	06-07	42,046,816	164,856	255
	07-08	47,907,759	177,378	270
Pan American	03-04	4,309,262	32,683	132
	04-05	5,816,164	48,844	119
	05-06	6,790,592	51,393	132
	06-07	7,209,473	54,225	133
	07-08	8,478,536	56,412	150
Permian Basin	03-04	1,895,564	7,956	238
	04-05	1,160,694	12,758	91
	05-06	2,377,656	10,574	225
	06-07	1,647,154	11,392	145
	07-08	3,043,098	11,142	273
San Antonio	03-04	16,516,457	92,142	179
	04-05	23,605,844	110,720	213
	05-06	32,316,849	130,842	247
	06-07	32,320,711	184,595	175
	07-08	34,601,445	178,870	193
Tyler	03-04	894,034	3,211	278
	04-05	501,301	2,834	177
	05-06	915,024	2,834	323
	06-07	1,444,316	6,137	235
	07-08	3,426,459	10,454	328

Note:
 N/A - Data not available.

Source: *Space Projection Model Report, Texas Higher Education Coordinating Board*

**RESEARCH EXPENDITURES AND RESEARCH SPACE
 Health Institutions**

	FY	Research Expenditures	Research E&G Sq. Ft	Research Expenditures per Research E&G Sq. Ft
SWMC-Dallas	03-04	314,403,028	623,651	\$504
	04-05	320,801,884	623,651	514
	05-06	333,256,162	671,047	497
	06-07	341,110,600	690,800	494
	07-08	371,101,500	854,553	434
UTMB-Galveston	03-04	132,768,911	445,878	298
	04-05	149,957,462	452,233	332
	05-06	155,036,202	483,170	321
	06-07	156,103,865	478,404	326
	07-08	153,461,284	476,723	322
HSC-Houston	03-04	150,222,206	333,776	450
	04-05	156,519,695	355,412	440
	05-06	175,153,808	340,446	514
	06-07	191,724,126	404,398	474
	07-08	197,251,749	402,692	490
HSC-San Antonio	03-04	124,912,722	432,978	288
	04-05	134,058,535	494,203	271
	05-06	139,778,732	510,113	274
	06-07	146,338,142	523,151	280
	07-08	188,620,797	533,441	354
M.D. Anderson	03-04	313,916,355	564,511	556
	04-05	341,978,679	580,846	589
	05-06	409,679,711	620,974	660
	06-07	444,932,707	741,242	600
	07-08	488,654,827	711,795	687
HSC-Tyler	03-04	10,240,390	39,612	259
	04-05	11,420,260	39,688	288
	05-06	12,598,871	53,520	235
	06-07	13,550,150	52,812	257
	07-08	13,702,579	52,812	259

Source: Space Projection Model Report, Texas Higher Education Coordinating Board

TECHNOLOGY TRANSFER Academic and Health Institutions

FY	03-04	04-05	05-06	06-07	07-08
Academic Institutions					
New invention disclosures	149	213	183	245	275
U.S. patents issued	40	43	45	46	38
Licenses & options executed	27	27	54	33	67
Start-up companies	8	8	9	7	15
Gross revenue from intellectual property (<i>\$ in thousands</i>)	\$5,589.1	\$9,015.4	\$9,161.8	\$7,201.0	\$12,933.9
Health Institutions					
New invention disclosures	345	402	472	482	441
U.S. patents issued	80	71	72	76	61
Licenses & options executed	114	127	132	129	127
Start-up companies	4	4	5	13	10
Gross revenue from intellectual property (<i>\$ in thousands</i>)	\$24,083.8	\$25,884.8	\$26,391.9	\$24,365.8	\$24,300.1
System Total					
New invention disclosures	494	615	655	727	716
U.S. patents issued	120	114	117	122	99
Licenses & options executed	141	154	186	162	194
Start-up companies	12	12	14	20	25
Gross revenue from intellectual property (<i>\$ in thousands</i>)	\$29,672.9	\$34,900.1	\$35,553.6	\$31,566.8	\$37,234.0

Source: "Technology Development and Transfer", Texas Higher Education Coordinating Board

