

TECHNOLOGY ASSESSMENT AND FORECAST REPORT

U.S. COLLEGES AND UNIVERSITIES--

UTILITY PATENT GRANTS 1969-1999

[EXCERPT--ATTACHMENT 'A' AND TAB 'C' ONLY]



September 2000
U.S. PATENT AND TRADEMARK OFFICE
OFFICE OF INFORMATION DISSEMINATION SERVICE
TECHNOLOGY ASSESSMENT AND FORECAST PROGRAM
PK3 - Suite 441
WASHINGTON, DC 20231
TEL: (703) 306-2600 / FAX (703) 306-2737

A TECHNOLOGY ASSESSMENT AND FORECAST REPORT

U.S. COLLEGES AND UNIVERSITIES—
UTILITY PATENT GRANTS 1969-1999

This report, prepared by the United States Patent and Trademark Office, Office of Information Dissemination Services, summarizes utility patent activity of U.S. colleges, universities, and associations composed of U.S. colleges and universities, during calendar years 1969-1999. The content of the report includes numbers of utility patents assigned annually and the technological emphases of patents assigned to U.S. colleges and universities. Tabular presentations are provided for all institutions, with separate tabulations provided for each institution ranked in the top 100 by total research and development (R&D) expenditures in fiscal year 1998.

Patent data presented in this report were obtained from the USPTO's Technology Assessment and Forecast (TAF) database. The TAF database is maintained by the Office of Information Dissemination Services and contains the bibliographic information from patents that have issued since 1963. Academic institutions ranked in the top 100 for R&D expenditures in FY 1998 were identified from National Science Foundation report, *Academic Research and Development Expenditures, Fiscal Year 1998* (early release Tables).

Contents

This report contains two attachments, followed by five tabular presentations of data for U.S. colleges, universities, or associations of colleges and universities that received one or more utility patents between 1969-99. Tabs A, B and C include data for all academic institutions in the report; Tabs D and E include more detailed information for institutions ranked in the top 100 in R&D expenditures in FY 1998.

Alphabetical listing of all academic institutions included in the report (Attachment A).

Classes of technology into which patents are classified--class titles and class numbers (Attachment B).

For all U.S. academic institutions:

Number of patents granted annually in each class of technology for all institutions combined (Tab A).

Classes of technology that receive greater or lesser emphasis in patents assigned to all U.S. academic institutions (Tab B).

Total numbers of patents assigned annually to all institutions combined, and numbers of patents assigned annually to each academic institution (Tab C).

For U.S. academic institutions ranked in the top 100 in R&D expenditures in FY 1998:

Number of patents granted annually in each class of technology for each academic institution (Tab D).

Number of patents granted annually to each academic institution (Tab E).

Selection of Academic Institutions

Academic institutions that appear in this report consist of U.S. colleges, universities, and associations of U.S. colleges and universities that were assigned one or more U.S. utility patents between 1969-99.

The selection of academic institutions is based on a search of patent assignee names that appear in the Technology Assessment and Forecast assignee file. The assignee file is an alphabetical listing of more than 185,000 names of assignees whose names appear on the printed patents.

Only the first-named assignee on a patent is contained in the TAF data base. This eliminates double-counting of patents when distributions are based on assignee name. Thus, a search of patents assigned to academic institutions excludes patents with a first-named assignee that is not an academic institution, but with a second assignee that is a U.S. academic institution; however, this situation is relatively infrequent.

A comprehensive list of institutions selected for inclusion in this report is presented in alphabetical order in Attachment A. Academic institutions that are included in this report for the first time this year are shown below.¹ Some of these institutions (e.g., The University of Utah Technology Transfer Office) may be components of larger academic institutions or systems that appear elsewhere in the report (e.g., University of Utah):

- Calvin College
- Dowling College
- Georgia Institute of Technology
- Humboldt State University Foundation
- New Mexico State University
- Northwestern University Medical School
- Seton Hall University
- Space Vacuum Epitaxy Center University of Houston
- The University of Arkansas for Medical Sciences
- The University of Utah Technology Transfer Office
- University of Houston - Clearlake

Careful consideration should be given to the use of patent data to assess the inventive activity of a particular component of a larger institution or statewide system. A search of

¹ Four institutions that previously appeared in this report have been dropped from the current report, since these institutions are not located in the U.S. They are: Northeast University of Technology; Concordia University, University of New England, and Xaverius College. Eight patents were attributed to these institutions in prior reports.

patents assigned to the University of California--Los Angeles, for example, might result in the identification of several patents with that assignee name. However, the assignee name that appears on other patents associated with the UCLA campus might simply show University of California. This situation occurs when the patent applicant or legal representative, who is responsible for providing the assignee name that appears on the patent, variously provides the name of the statewide system, a particular campus, or a foundation, institute, etc. within a college or university.

The lack of consistency in the format of assignee names can also pose a problem identifying patents associated with colleges and universities ranked in the top 100 according to R&D expenditures in FY 1998. The top 100 institutions in the NSF survey are not necessarily ranked according to statewide systems. For example, the University of California – San Diego was ranked 7th in R&D expenditures in FY 1998 and the University of California – Los Angeles was ranked 3rd, according to NSF figures. As noted above, it is not always possible to associate patents with a specific campus or research center separately from the larger institution or statewide system to which it belongs. For purposes of this report, the R&D expenditures at all campuses of a given institution were consolidated into a single figure. Similarly, all patents associated with a given institution, its various campuses, known research centers, foundations, or institutes that are integral units of that institution were consolidated into a single patent count. Consolidated figures for top 100 institutions are presented in Tab D (distributed by class of technology) and Tab E (total numbers of utility patents). The data presented in Tab C (annual patent counts), which represent all U.S. colleges and universities are not consolidated. Multiple entries for a particular university and its integral units may be individually listed in Tab C.

Data Base Records

The TAF data base includes bibliographic data items for 2.9 million U.S. utility patents issued since 1963 and 192,000 non-utility patents issued since 1977. While every effort is made to ensure accurate data for all patents, the size and complexity of the data base prevent achievement of a totally "clean" record. The following points are noted.

1) A foreign origin patent in this report is a patent [assigned to an academic institution at the time of issue] with a first-named inventor who resided in a country other than the United States.

2) Patents assigned to U.S. academic institutions are considered U.S. corporate owned. Patents in this report that are classified as government, foreign corporate, foreign government or individually owned patents are the result of errors in the patent record.

3) Patent classification information in this report reflects changes to the USPC, effective December 1999. At the time of issue, each patent is classified into one or more USPC classes of technology--the first class listed is known as the "original" class. Subsequent expansion or changes in the technology associated with a particular class may require a modification to the USPC. As a result, a patent may be reclassified into a new class. Thus, the current, original class associated with a patent may not be the same

class assigned at the time of issue. The distribution of patents by class in this report is based on current, original class, as of December 1999.

Summary

In 1999 the USPTO issued 153,487 utility patents, of which 3,340 (2.2%) were assigned to a U.S. college, university or association of U.S. colleges and universities. Both the number and percent of total patents assigned to U.S. academic institutions have steadily increased since 1985, when only 589 utility patents (.8% of total) were assigned to U.S. academic institutions. The 3,340 patents assigned to U.S. academic institutions in 1999 represent 4.8% of the 66,062 patents assigned to non-government, U.S. organizations. (See Table 1.)

Institutions that received higher numbers of utility patents in 1999 were the University of California (437 patents), followed by Massachusetts Institute of Technology (142 patents), and the California Institute of Technology (99 patents). The University of California and the Massachusetts Institute of Technology were also the top two recipients of utility patents in 1998.

Technologies that have been emphasized in patenting by U.S. colleges and universities include superconductors, biotechnology, and pharmaceuticals. Between 1969-99, disproportionately more patents assigned to U.S. academic institutions were in the following classes of technology:

- Class 800—Multicellular Living Organisms and Unmodified Parts Thereof, and Related Processes
- Class 435—Chemistry: Molecular Biology and Microbiology;
- Class 530—Chemistry: Natural Resins or Derivatives; Peptides or Proteins; Lignins or Reaction Products Thereof;
- Class 505—Superconductor Technology: Apparatus, Material, Process;
- Class 536—Organic Compounds—Part of the Class 532-570 Series; and
- Class 424—Drug, Bio-Affecting and Body Treating Compositions.

TABLE 1. UTILITY PATENTS ASSIGNED TO U.S. COLLEGES AND UNIVERSITIES
NUMBER AND PERCENT OF TOTAL UTILITY PATENTS, AND OF U.S. CORPORATE-OWNED UTILITY PATENTS

	1969-84	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	1969-99
Total number of utility patents granted	1067525	71661	70860	82952	77924	95537	90364	96513	97444	98342	101676	101419	109645	111983	147519	153487	2574851
Number of U.S. corporate-owned utility patents	529456	31181	29490	33726	31437	38664	36093	39133	40308	41825	44036	44035	48741	50220	66053	69392	1173790
non-universities	524139	30592	28820	32906	30623	37439	34911	37791	38767	40205	42257	42157	46587	47784	62902	66052	1143932
universities	5317	589	670	820	814	1225	1182	1342	1541	1620	1779	1878	2154	2436	3151	3340	29858
University patents as % of total utility grants	0.5%	0.8%	0.9%	1.0%	1.0%	1.3%	1.3%	1.4%	1.6%	1.6%	1.7%	1.9%	2.0%	2.2%	2.1%	2.2%	1.2%
University patents as % of U.S. corporate-owned utility patents	1.0%	1.9%	2.3%	2.4%	2.6%	3.2%	3.3%	3.4%	3.8%	3.9%	4.0%	4.3%	4.4%	4.9%	4.8%	4.8%	2.5%

PLEASE NOTE

The Technology Assessment and Forecast Program of the U.S. Patent and Trademark Office (PTO) compiled patent data in this report, with the support of the Science Indicators Unit of the National Science Foundation (NSF).

Use and further release of these data, in whole or in part, are permitted. However, acknowledgment of the source of the data and absolution of the NSF or PTO from responsibility for any opinions or recommendations expressed in any document using or containing the data are required. The following language is recommended:

Data on patent counts appearing in this document were prepared under the support of the Science Indicators Unit, National Science Foundation, by the Technology Assessment and Forecast Program, U.S. Patent and Trademark Office. Any opinions or recommendations expressed in this document are those of the authors and do not necessarily reflect the views of the National Science Foundation or the Patent and Trademark Office.

U.S. Colleges and Universities with Utility Patents Assigned 1969-1999 (Attachment A)

Number of
Patents

College/University Name

1	Adelphi Research Center, Inc.
11	Albany Medical College Of Union University
39	Alfred University
18	Alfred University Research Foundation Inc.
1	All American University, Incorporated
5	Allegheny University Of The Health Sciences
5	Ambassador College
1	American Technological University
1	Antioch College
1	Appalachian State University
31	Arizona Board Of Regents
79	Arizona State University
90	Associated Universities, Inc.
10	Auburn Research Foundation
28	Auburn University
1	Auburn University Research Foundation
3	Ball State University
157	Baylor College Of Medicine
1	Baylor Research Foundation, A Nonprofit Corporation Of The S
9	Baylor Research Institute(Formerly Baylor Research Foundation)
14	Baylor University
7	Beloit College
2	Board Of Overseers Of Goshen College
3	Board Of Regents Acting For And On Behalf Of University Of M
2	Board Of Regents For Education Of The State Of Rhode Island
17	Board Of Regents Of The Oklahoma Agricultural & Mechanical C
1	Board Of Regents Of The Ou
4	Board Of Regents Of The University And Community College System Of Nevada
112	Board Of Regents Of The University Of Oklahoma
2	Board Of Trustees Of The Wichita State University
1	Boston College
200	Boston University
1	Boston University Research Foundation
4	Bowling Green State University
1	Bowman Gray School Of Medicine, Wake Forest University
1	Bradley University
58	Brandeis University
84	Brigham Young University
2	Brooklyn College Foundation
3	Brown University
83	Brown University Research Foundation
2	Bryn Mawr College
1	Bureau Of Faculty Research Of Western Washington University
1	Bw Brown University Research Foundation
852	California Institute Of Technology
1	California Institute Of Technology, Jet Propulsion Laboratory
18	California Institute Research Foundation
6	California Polytechnic State University Foundation
4	California State University Fresno Foundation
2	California State University Fullerton Foundation
1	Calvin College
143	Carnegie-Mellon University
128	Case Western Reserve University
1	Central Michigan University Board Of Trustees
1	Chapman College
1	City College Of New York
3	Clark University
2	Clarkson University
91	Clemson University

U.S. Colleges and Universities with Utility Patents Assigned 1969-1999 (Attachment A)

Number of
Patents

College/University Name

20	Cleveland State University
1	College Of Forestry, Wildlife & Range Sciences, University O
1	College Of Medicine And Dentistry Of New Jersey
24	Colorado School Of Mines Research Institute
50	Colorado State University Research Foundation
328	Columbia University
1	Cooper Union Research Foundation, Inc.
1	Cooperative Institute For Research In Environmental Sciences
663	Cornell Research Foundation Inc.
3	Cornell University
3	Corporation Of Gonzaga University
8	Creighton University
2	Creighton University Office Of Technology Licensing
166	Curators Of The University Of Missouri
55	Dartmouth College
2	Denver Research Institute
1	Department Of Mechanical Engineering Louisiana Tech Universi
1	Division Of Plastic Surgery Of The Medical School Of Northwe
1	Dowling College
2	Drexel Institute Of Technology
42	Drexel University
254	Duke University Inc.
7	Duke University Medical Center
1	Duke University Patents Foundation
24	Duquesne University Of The Holy Ghost
13	East Carolina University
1	East Tennessee State University
5	Eastern Michigan University
3	Eastern Virginia Medical School
8	Eastern Virginia Medical School Of The Medical College Of Hampton Roads
1	Eastern Washington University
143	Emory University
1	Endowment And Alumni Foundation At Montana State University
4	Endowment And Research Foundation At Montana State Universit
1	Engineering Research Ctr., North Carolina State Univ.
1	Fairfield University
2	Florida Agricultural And Mechanical University
16	Florida Atlantic University
3	Florida Institute Of Technology
4	Florida International University
71	Florida State University
6	Fordham University
1	Fort Valley State College
2	Foundation At New Jersey Institute Of Technology
4	George Mason University
18	George Washington University
1	George Washington University, Office Of Sponsored Research
91	Georgetown University
1	Georgia Institute Of Technology
11	Georgia State University Research Foundation
286	Georgia Tech Research Corp.
9	Gmi Engineering & Management Institute
1	Grand Valley State University
6	Hahnemann University
327	Harvard College, President And Fellows
3	Harvey Mudd College
11	Howard University
1	Humboldt State University Foundation
31	Illinois Institute Of Technology
4	Illinois State University

U.S. Colleges and Universities with Utility Patents Assigned 1969-1999 (Attachment A)

<u>Number of Patents</u>	<u>College/University Name</u>
131	Indiana University Foundation
2	Iowa State University
667	Iowa State University Research Foundation Inc.
1	Iowa, The State Of For The Use And Benefit Of
2	James Madison University
1	Jesuit Community At Loyola University
1	Johns Hopkins Hospital
3	Johns Hopkins School Of Medicine
590	Johns Hopkins University
5	Jordan College
1	Kansas State University
143	Kansas State University Research Foundation
35	Kent State University
1	Kresge Eye Institute
1	Kresge Eye Institute Of Wayne State University
2	Lake Forest College
1	Lamar State College Of Technology
48	Lehigh University
1	Lehigh University And Northeast Benjamin Franklin Technology Center Of Pa
5	Loma Linda University
34	Loma Linda University Medical Center
5	Louisiana State Univ. Medical Center Foundation
59	Louisiana State University
127	Louisiana State University, Agricultural And Mechanical College
22	Loyola University Of Chicago
3	Madison College Foundation, Inc.
2	Manhattan College
1	Marquette School Of Medicine, Inc.
5	Marquette University
1	Massachusetts College Of Optometry
2151	Massachusetts Institute Of Technology
5	Mayo Foundation
115	Mayo Foundation For Medical Education And Research
4	Medical College Of Ga. Research Institute, Inc.
1	Medical College Of Georgia Foundation Inc.
12	Medical College Of Hampton Roads
23	Medical College Of Ohio
18	Medical College Of Wisconsin Research Foundation, Inc.
25	Medical College Of Wisconsin, Inc.
18	Medical University Of South Carolina
2	Memphis State University
6	Miami University
320	Michigan State University
83	Michigan Technological University
1	Milwaukee School Of Engineering
1	Minnesota State University System Through Its Mankato State University Agency
16	Mississippi State University
4	Mississippi State University Development Foundation Inc.
4	Mississippi State University: Forest Products Laboratory
1	Montclair State College
6	Mount Sinai Research Foundation, Inc.
95	Mount Sinai School Of Medicine Of The City University Of New York
31	New Jersey Institute Of Technology
2	New Mexico Institute Of Mining And Technology
1	New Mexico State University
6	New Mexico State University Foundation
16	New Mexico State University Technology Transfer Corporation
14	New Mexico Tech Research Foundation
1	New York Chiropractic College
54	New York Institute Of Technology

U.S. Colleges and Universities with Utility Patents Assigned 1969-1999 (Attachment A)

<u>Number of Patents</u>	<u>College/University Name</u>
13	New York Medical College
219	New York University
1	New York University & Juridical Foundation
11	New York University Medical Center
4	North Carolina Central University
273	North Carolina State University
19	North Dakota State University
3	North Dakota State University Development Foundation
1	North Dakota State University Of Agriculture And Applied Sci
10	North Dakota State University Research Foundation
1	North Western Univ. Technology Transfer Prog.
9	Northeastern Ohio Universities College Of Medicine
117	Northeastern University
16	Northern Illinois University
234	Northwestern University
1	Northwestern University Medical School
1	Nova University
4	Oak Ridge Associated Universities
4	Oakland Community College
9	Ohio Agricultural Research And Development Center
1	Ohio Medical College
1	Ohio Northern University
68	Ohio State Research Foundation
276	Ohio State University
8	Ohio University Edison Animal Biotechnology Institute
30	Ohio University, The President And Board Of Trustees Of
41	Oklahoma State University
6	Old Dominion University
1	Old Dominion University Research Foundation
26	Oregon Graduate Center For Study And Research
9	Oregon Graduate Institute Of Science & Technology
96	Oregon Health Sciences University
4	Oregon State Board Of Higher Education, An Agency Of The Sta
69	Oregon State University
130	Penn State Research Foundation, Inc.
31	Pennsylvania Research Corporation
5	Pennsylvania State University
1	Pepperdine University
1	Philadelphia College Of Osteopathic Medicine
1	Philadelphia College Of Pharmacy And Science
2	Philadelphia College Of Textiles And Science
2	Polymer Processing Institute
1	Polytechnic Institute Of Brooklyn
6	Polytechnic Institute Of New York
22	Polytechnic University
4	Portland State University
1	President & Trustees Of The Miami University
151	Princeton University
1	Purdue Research Corporation
317	Purdue Research Foundation
3	Purdue Research Foundation Office Of Technology Transfer
1	Purdue Research Laboratory
2	Purdue University
1	Regents Of The University Of Minneapolis
1	Regis College
90	Rensselaer Polytechnic Institute
29	Research And Development Institute, Inc. At Montana State Un
6	Research And Education Institute, Inc.
11	Research And Education Institute, Inc. Harbor - Ucla Medical
670	Research Corporation

U.S. Colleges and Universities with Utility Patents Assigned 1969-1999 (Attachment A)

Number of
Patents

College/University Name

16	Research Foundation Of City College Of New York
374	Research Foundation Of State University Of New York
6	Research Foundation, The City University Of New York
92	Research Triangle Institute
1	Rit Research Corp.
7	Roanoke College
5	Rochester Institute Of Technology
234	Rockefeller University
4	Rockhurst University
6	Rutgers Research And Educational Foundation
189	Rutgers University
4	Saginaw Valley State University
1	Salisbury State University
1	San Diego State College Foundation
5	San Diego State University
3	San Jose State University Foundation
1	Seton Hall University
1	Shaw University
1	Siena College
1	Smith College
6	South Dakota School Of Mines And Technology
2	South Dakota State University
2	Southeastern Illinois College Foundation
26	Southeastern Universities Research Association, Inc.
8	Southern Methodist University
1	Space Vacuum Epitaxy Center University Of Houston
1	Spelman College
4	St. John S University
27	St. Louis University
2	St. Louis University Health Sciences Center
961	Stanford University, Leland Junior, The Board Of Trustees Of
2	State Of Iowa For Use And Benefit Of The University Of Iowa
85	State University Of New York
64	Syracuse University
17	Syracuse University Research Corporation
135	Temple University
1	Tennessee Technological University
211	Texas A&M University System
1	Texas A&M University System Technology Licensing Office
1	Texas College Of Osteopathic Medicine
4	Texas Tech University
9	Texas Tech University Health Sciences Center
1	Texas Wesleyan University, Inc.
11	The Catholic University Of America
2	The Cooper Union For The Advancement Of Science And Art
1	The Corporation Of Mercer University
3	The Medical College Of Pennsylvania
2	The Mount Sinai Medical Center Of The City University Of New York
1	The Regents Of New Mexico State University
1	The Regents Of The University Of California Los Alamos National Laboratory
1	The University Foundation, California State University
1	The University Of Arkansas For Medical Sciences
2	The University Of Memphis
24	The University Of Oregon
1	The University Of Utah Technology Transfer Office
189	Thomas Jefferson University
1	Touro College
3	Trinity University
1	Trustees Of Davidson College
1	Trustees Of The College Of Aeronautics

U.S. Colleges and Universities with Utility Patents Assigned 1969-1999 (Attachment A)

<u>Number of Patents</u>	<u>College/University Name</u>
20	Trustees Of The Stevens Institute Of Technology
48	Trustees Of Tufts College
23	Tufts University
1	Tufts University School Of Medicine
1	Tufts University School Of Medicine Hospital, Inc.
64	Tulane Educational Fund
1	Tulane Medical Center Of Tulane Univ.
2	Tulane University
2	Tuskegee University
1	U.T. Board Of Regents
87	Uab Research Foundation
1	Univ. Of Chicago Development Corp. Argonne National Laboratories
2	Univ. Of Tx Md Anderson Cancer Center
205	Univeristy Of Iowa Research Foundation
27	Universities Research Association, Inc.
37	University Corporation For Atmospheric Research
160	University Of Akron
89	University Of Alabama
13	University Of Alaska
47	University Of Arizona
13	University Of Arizona Foundation
111	University Of Arkansas
2	University Of Arkansas Foundation
2768	University Of California, The Regents Of
64	University Of Central Florida
144	University Of Chicago
2	University Of Chicago (Arch Development Corp.)
99	University Of Cincinnati
2	University Of Cincinnati, Board Of Directors Of
69	University Of Colorado Foundation
77	University Of Colorado, The Regents Of
99	University Of Connecticut
2	University Of Connecticut Research & Development Corp.
72	University Of Dayton
174	University Of Delaware
3	University Of Denver, Colorado Seminary
385	University Of Florida Board Of Regents
122	University Of Florida Research Foundation, Incorporated
3	University Of Georgia
139	University Of Georgia Research Foundation, Inc.
1	University Of Hartford
75	University Of Hawaii
1	University Of Hawaii, Office Of Technology Transfer And Economic Development
6	University Of Health Sciences/The Chicago Medical School
1	University Of Houston - Clearlake
3	University Of Houston System
29	University Of Houston, Central Campus
16	University Of Houston-University Park
2	University Of Idaho Research Foundation, Inc.
195	University Of Illinois
135	University Of Illinois Foundation
39	University Of Kansas
4	University Of Kansas Center For Research
18	University Of Kansas Endowment Association
7	University Of Kansas Med Center
187	University Of Kentucky Research Foundation
9	University Of Kentucky, The Board Of Trustees Of
3	University Of Louisville
1	University Of Louisville Foundation
6	University Of Louisville Research Foundation Incorporated

U.S. Colleges and Universities with Utility Patents Assigned 1969-1999 (Attachment A)

<u>Number of Patents</u>	<u>College/University Name</u>
11	University Of Lowell
13	University Of Maine System
175	University Of Maryland
8	University Of Maryland Biotechnology Institute
4	University Of Maryland Eastern Shore
2	University Of Maryland, School Of Medicine
66	University Of Massachusetts
10	University Of Massachusetts At Amherst
24	University Of Massachusetts At Lowell
45	University Of Massachusetts Medical Center
3	University Of Massachusetts Medical School
78	University Of Medicine And Dentistry Of New Jersey
90	University Of Miami
406	University Of Michigan
556	University Of Minnesota, The Regents Of
35	University Of Mississippi
1	University Of Mississippi Medical Center
13	University Of Montana
191	University Of Nebraska, The Board Of Regents Of
5	University Of Nevada System
7	University Of New Hampshire
125	University Of New Mexico
1	University Of New Orleans
221	University Of North Carolina
7	University Of North Dakota Energy And Environment Research Center Foundation
1	University Of North Dakota Medical Education Research Foundation
8	University Of North Dakota School Of Engineering & Mines Foundation (Und-Sem Fou
2	University Of North Texas
7	University Of Northern Iowa Foundation
20	University Of Notre Dame
20	University Of Notre Dame Du Lac
1	University Of Oklahoma Foundation, Inc.
1	University Of Oklahoma Research Institute
1	University Of Patents, Inc.
439	University Of Pennsylvania
232	University Of Pittsburgh
2	University Of Pittsburgh Medical Center
1	University Of Portland
8	University Of Puerto Rico
31	University Of Rhode Island
179	University Of Rochester
2	University Of Scranton
18	University Of South Alabama
39	University Of South Carolina
97	University Of South Florida
217	University Of Southern California
30	University Of Southern Illinois Foundation
30	University Of Southern Mississippi
4	University Of Southwestern Louisiana
2	University Of Tennessee
2	University Of Tennessee Research Center
151	University Of Tennessee Research Corporation
1007	University Of Texas
1	University Of Texas Health Science Center Houston
2	University Of Texas Medical Branch At Galveston
3	University Of The Pacific
83	University Of Toledo
3	University Of Tulsa
223	University Of Utah
186	University Of Utah Research Foundation

U.S. Colleges and Universities with Utility Patents Assigned 1969-1999 (Attachment A)

<u>Number of Patents</u>	<u>College/University Name</u>
17	University Of Vermont
16	University Of Vermont And State Agricultural College
40	University Of Virginia
140	University Of Virginia Alumni Patents Foundation
1	University Of Virginia And National Aeronautics & Space Admi
257	University Of Washington
1	University Of West Florida
10	University Of Wisconsin
4	University Of Wisconsin-Milwaukee
1	University Of Wisconsin-Stout Manufacturing Laboratory
16	University Of Wyoming
215	University Patents, Inc.
5	University Patents, Inc. Of Illinois
3	University Research Foundation
1	Ut Sw Medical Ctr At Dallas
53	Utah State University Foundation
111	Vanderbilt University
4	Villanova University
51	Virginia Commonwealth University
2	Virginia Commonwealth University Medical College
19	Virginia Polytechnic Institute & State University
3	Virginia Polytechnic Institute Educational Foundation, Inc.
1	Virginia State University
125	Virginia Tech Intellectual Properties, Inc.
1	Wabash College
43	Wake Forest University
66	Washington State University Research Foundation, Inc.
9	Washington Technology Center
273	Washington University
2	Washington University School Of Medicine
3	Washington University Technology Associates, Inc.
140	Wayne State University
1	Weber State University
12	West Virginia University
2	West Virginia University Research Corporation
5	Western Kentucky University
11	Western Michigan University
1	Western Washington State College
2	Widener College
15	William Marsh Rice University
860	Wisconsin Alumni Research Foundation
16	Woods Hole Oceanographic Institution
15	Worcester Polytechnic Institute
46	Wright State University
200	Yale University
86	Yeshiva University

Tab C
Number of utility patents assigned yearly (CY 1969-1999) to all U.S. colleges and universities

The patent activity of all U.S. colleges and universities is presented in this section. Tabular presentation of data in this section is in three parts, identified by page number in the upper right corner. Part A1 presents the number (Page A1-1) and percent distribution, by geographic origin (Page A1-2), of patents assigned each year to all U.S. colleges and universities. Geographic origin is based on the residence of the first-named inventor. Part A1 also presents a breakout of patents by ownership categories (i.e., corporate, government or individual), but all patents assigned to U.S. colleges and universities should be designated U.S. corporations—other designations that may appear are errors in the patent file.

Part A2 is similar in format to Part A1, except patent counts are distributed according to the year the applications for those patents were filed, instead of the year the grants were issued. These data do not represent the number application filings; only those filings that resulted in patent grants are presented here.

Part B (Page B-1 to B-43) presents the number of patents assigned to each academic institution. For each institution, patents are distributed two ways—first, by year the patents were issued and, second, by year the applications for those patents were filed.

---- Patents Granted By Date Of Patent Grant (Granted: Jan 01, 1969 - Dec 31, 1999) ----

	-----NUMBER OF PATENTS-----															Total
	Pre 1986	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	
Total	5906	670	820	814	1225	1182	1342	1541	1620	1779	1878	2154	2436	3151	3340	29858
U.S. Origin	5829	659	802	797	1210	1161	1324	1517	1600	1761	1854	2112	2397	3096	3296	29415
Foreign Origin	77	11	18	17	15	21	18	24	20	18	24	42	39	55	44	443
CANADA	6	2		3	1	4	4	3	3	2	4	6	2		8	48
GERMANY	13			1	1	2		2	4		1	4	7	7	5	47
JAPAN	8	1	3	1	4	1	1	2	1	2	4	6	4	8	1	47
ISRAEL	8	2	3	3	2	2	3	3	1	2	1	5	2	3	2	42
UNITED KINGDOM	12	2	1	1	2	2	1		2		3			5	3	34
FRANCE	2	1	2	1				3		2	1	2	3	4	1	22
SWEDEN			1					3		3	1		3	1	2	14
AUSTRALIA	5		1	1					1			1	2	2		13
RUSSIAN FEDERATION											1	1		4	6	12
SWITZERLAND	2		1	1			1	1	1			1		1	2	11
BULGARIA		2	1	1	1	4		1	1							11
ITALY	2							1	1	1	1	1		1	1	9
TAIWAN				1			1	1		1	1	2		2		9
SPAIN	1					1	1					1	2		2	8
INDIA	2			1		1					1	1		1	1	8
NETHERLANDS							3	1						2	1	7
FINLAND												2	3	1	1	7
SOUTH KOREA												1	2	2	2	7
CHINA P.REP.			1									2	1	1	1	6
AUSTRIA	2													2	1	5
GREECE	3									1				1		5
TURKEY		1								1	1		1		1	5
EGYPT					1	1	1			1		1				5
IRELAND					1				1			1	2			5
CHILE						1			1					1	1	4
HUNGARY						1			2	1						4
MALAYSIA									1			1		1	1	4
POLAND	4															4
SOUTH AFRICA	1										1			1		3
VENEZUELA	1		1										1			3
MEXICO					1					1					1	3
BELGIUM	1											1	1			3
LEBANON	1												1	1		3
NORWAY				1			1									2
NEW ZEALAND			1												1	2
YUGOSLAVIA							1			1						2
Others (16)	3		2	1	1	1			2		2	1	3	2	1	19

---- Patents Granted By Date Of Patent Grant (Granted: Jan 01, 1969 - Dec 31, 1999) ----

	----- NUMBER OF PATENTS -----															Total
	Pre 1986	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	
Ownership:																
U.S. Corporations	5905	670	820	814	1224	1182	1342	1541	1620	1778	1874	2152	2436	3150	3340	29848
U.S. Government																0
U.S. Individuals																0
Foreign Corporations	1				1					1	4	2		1		10
Foreign Government																0
Foreign Individuals																0

---- Patents Granted By Date Of Patent Grant (Granted: Jan 01, 1969 - Dec 31, 1999) ----

	----- PERCENT OF PATENTS -----															Total	
	Pre 1986	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999		
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
U.S. Origin	99	98	98	98	99	98	99	98	99	99	99	98	98	98	99	99	
Foreign Origin	1	2	2	2	1	2	1	2	1	1	1	2	2	2	1	1	
CANADA																	0
GERMANY																	0
JAPAN																	0
ISRAEL																	0
UNITED KINGDOM																	0
FRANCE																	0
SWEDEN																	0
AUSTRALIA																	0
RUSSIAN FEDERATION																	0
SWITZERLAND																	0
BULGARIA																	0
ITALY																	0
TAIWAN																	0
SPAIN																	0
INDIA																	0
NETHERLANDS																	0
FINLAND																	0
SOUTH KOREA																	0
CHINA P.REP.																	0
AUSTRIA																	0
GREECE																	0
TURKEY																	0
EGYPT																	0
IRELAND																	0
CHILE																	0
HUNGARY																	0
MALAYSIA																	0
POLAND																	0
SOUTH AFRICA																	0
VENEZUELA																	0
MEXICO																	0
BELGIUM																	0
LEBANON																	0
NORWAY																	0
NEW ZEALAND																	0
YUGOSLAVIA																	0
Others (16)																	0

---- Patents Granted By Date Of Patent Grant (Granted: Jan 01, 1969 - Dec 31, 1999) ----

	----- PERCENT OF PATENTS -----															Total
	Pre 1986	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	
Ownership:																
U.S. Corporations	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
U.S. Government																0
U.S. Individuals																0
Foreign Corporations																0
Foreign Government																0
Foreign Individuals																0

---- Patents Granted By Date Of Patent Application (Granted: Jan 01, 1969 - Dec 31, 1999) ----

	----- NUMBER OF PATENTED APPLICATIONS -----															Total
	Pre 1986	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	
Total	7697	829	1035	1264	1364	1497	1503	1833	2166	2697	3232	2393	1865	462	21	29858
U.S. Origin	7586	812	1025	1246	1338	1479	1478	1811	2135	2652	3178	2354	1846	454	21	29415
Foreign Origin	111	17	10	18	26	18	25	22	31	45	54	39	19	8		443
CANADA	10	2		2	7	1	4	3	5	2	5	2	3	2		48
GERMANY	13	1	1	1	3		2	2	2	7	9	3	1	2		47
JAPAN	11	3	1	3	4		1	2	5	5	9	2	1			47
ISRAEL	15	2	1	2	1	5	1	1	2	6	3	3				42
UNITED KINGDOM	16	2	1	1		1	1	4	1	1	2	2	2			34
FRANCE	5		1		1	2	2		2	2	3	4				22
SWEDEN	1					2	2	2	2	2	1	1	1			14
AUSTRALIA	6		1				1		2		1	2				13
RUSSIAN FEDERATION										1	4	5	1	1		12
SWITZERLAND	2	2			1	2			1	2				1		11
BULGARIA	3		1	4	1		2									11
ITALY	2				1			1	2	2	1					9
TAIWAN			1		1	1		1	1	1	1	2				9
SPAIN	1			1	1					3		1	1			8
INDIA	2	1			1			1		1	1			1		8
NETHERLANDS					1	2	1						2	1		7
FINLAND									2		3	1	1			7
SOUTH KOREA										2	2	1	2			7
CHINA P.REP.	1								2	1		1	1			6
TURKEY	1						1	1	1			1				5
AUSTRIA	2										1	1	1			5
EGYPT	1				1					1						5
IRELAND		1				1	1			1	1					5
GREECE	3							1				1				5
CHILE		1			1						1	1				4
HUNGARY				1		1	1	1								4
MALAYSIA							1				1	2				4
POLAND	4															4
VENEZUELA	2										1					3
SOUTH AFRICA	1							1			1					3
MEXICO				1				1			1					3
LEBANON	1									1		1				3
BELGIUM	1		1							1						3
YUGOSLAVIA			1				1									2
NEW ZEALAND	1												1			2
BRAZIL							1			1						2
Others (16)	6	1		2	1		1		1	2	2	2	1			19

---- Patents Granted By Date Of Patent Application (Granted: Jan 01, 1969 - Dec 31, 1999) ----

	----- NUMBER OF PATENTED APPLICATIONS -----															Total
	Pre 1986	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	
Ownership:																
U.S. Corporations	7696	829	1034	1264	1364	1497	1503	1832	2163	2696	3229	2393	1865	462	21	29848
U.S. Government																0
U.S. Individuals																0
Foreign Corporations	1		1					1	3	1	3					10
Foreign Government																0
Foreign Individuals																0

---- Patents Granted By Date Of Patent Application (Granted: Jan 01, 1969 - Dec 31, 1999) ----

	----- PERCENT OF PATENTED APPLICATIONS -----															Total	
	Pre 1986	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999		
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
U.S. Origin	99	98	99	99	98	99	98	99	99	98	98	98	99	98	100	99	
Foreign Origin	1	2	1	1	2	1	2	1	1	2	2	2	1	2		1	
CANADA					1												0
GERMANY																	0
JAPAN																	0
ISRAEL																	0
UNITED KINGDOM																	0
FRANCE																	0
SWEDEN																	0
AUSTRALIA																	0
RUSSIAN FEDERATION																	0
SWITZERLAND																	0
BULGARIA																	0
ITALY																	0
TAIWAN																	0
SPAIN																	0
INDIA																	0
NETHERLANDS																	0
FINLAND																	0
SOUTH KOREA																	0
CHINA P.REP.																	0
TURKEY																	0
AUSTRIA																	0
EGYPT																	0
IRELAND																	0
GREECE																	0
CHILE																	0
HUNGARY																	0
MALAYSIA																	0
POLAND																	0
VENEZUELA																	0
SOUTH AFRICA																	0
MEXICO																	0
LEBANON																	0
BELGIUM																	0
YUGOSLAVIA																	0
NEW ZEALAND																	0
BRAZIL																	0
Others (16)																	0

---- Patents Granted By Date Of Patent Application (Granted: Jan 01, 1969 - Dec 31, 1999) ----

	----- PERCENT OF PATENTED APPLICATIONS -----															Total
	Pre 1986	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	
Ownership:																
U.S. Corporations	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
U.S. Government																0
U.S. Individuals																0
Foreign Corporations																0
Foreign Government																0
Foreign Individuals																0