

Survey of Institutional Patent Policies and Patent Administration

THE FOLLOWING DOCUMENT is based on a survey taken by the Society of University Patent Administrators in 1977. Subjects of the survey were the patent policies of universities with employees who are members of the Society. As far as can be determined, this is the first such survey since the publication in 1962 by the National Academy of Sciences—National Research Council of *University Research and Patent Policies, Practices and Procedures*. The latter document is primarily a compilation of patent policies exactly as furnished by the institutions surveyed.

The 1977 survey was undertaken because of a growing interest in patents and the perception of a need for an up-to-date survey of patent policies which would be composed of carefully prepared questions and would provide analysis of the replies. The questionnaire used in this survey is based on one that was tested at six institutions and further refined before distribution. (A copy of the questionnaire is included as Appendix A; responding institutions are listed in Appendix B.)

Forty-eight major research institutions provided information for this document. The answers to the survey questions have been tabulated and the implications of these results are discussed. It will be noted that there is a wide variety of answers to certain questions, which is a result of the differences in institutional organization and practices. In some cases there are multiple answers to one question by the same institution. In questions involving titles, where many variations are possible, the answers have been grouped by titles that are considered to be equivalent. Where only one institution has responded in a particular way to a particular question, such answers generally have been grouped as "other."

Although a number of institutions that were surveyed did not reply (a few with large patent portfolios), the information provided and analyzed should be largely representative of the general community of research universities.

1. Name of institution (see Appendix B).	Where an institution checked more than one answer, this has been interpreted to mean that more than one body acted on the policy. In such cases, only the highest-ranked body was counted.
2. Who authorized the institution's patent policy?	
(a) Trustees, regents, or equivalent	37
(b) President, chancellor, or equivalent	5
(c) Faculty	2
(d) Other (such as state law or state agency)	4
	48
3. What office administers the patent policy?	
Research administration office	18
Vice president or dean of research	10
Research foundation	8

Vice president for administration	3
Patent committee	3
Patent office	3
Other	3
	<u>48</u>
4. To whom is the office in (3) above responsible?	
Vice president, vice chancellor, provost, or similar officer	24
President	12
Trustees	3
Director of foundation	3
Dean	3
Other	3
	<u>48</u>
5. Is there a patent committee?	
Yes	34
No	14
	<u>48</u>
6. What is the composition of the patent committee?	
Faculty and administration	23
Faculty only	7
Faculty, administration, and students	4
	<u>34</u>
Note that four institutions have patent committees that include students (presumably graduate students).	
7. What are the functions of the patent committee?	
Formulate patent policy	22
Determine royalty distributions	16
Make decisions on patenting inventions	26
Negotiate license arrangements	2
Other	5
	<u>71</u>

This question received multiple answers and all functions may not have been described. For example, some patent committees may be involved in arbitration (see 16 below) but this item was mentioned only once.

8. Does the patent policy cover:

(a) Faculty	47
(b) Professional staff	47
(c) Nonprofessional staff	43
(d) Graduate students employed by institution	46
(e) Graduate students not employed by institution	25
(f) Undergraduates employed by institution	42
(g) Undergraduates not employed by institution	21

Of the institutions responding, one had not yet adopted a patent policy, which accounts for the maximum number of 47 rather than 48. The significant decrease in coverage for both graduate and undergraduate students not employed by the institution probably relates to the fact that employment (and thus the payment of salary) is used in many cases as the basis for a university claim to equity in inventions, rather than the provisions of funds or facilities (see 15 below).

9. By which of the following does the institution control the disposition of patent rights (with the understanding that a sponsor may subsequently take control)?

(a) Taking title to inventions	36
(b) Directing or approving disposition by inventors	11
(c) The voluntary referral of an invention to the institution if there is no sponsor requirement	11
	<u>58</u>

Eight institutions checked both (a) and (b), which may mean that the policy is covered by (b), but that in some cases the inventor is required or elects to give title to the institution as provided for under (a). However, two of these eight institutions also checked (c), possibly an attempt to cover both inventions in which the institution has an equity and those in which it does not (see 15 below). The remaining nine institutions in category (c) constitute a large number in which the institution exercises no control at all (unless there is a sponsor requirement).

A policy as in (b) of directing or approving disposition by inventors provides much greater flexibility than that listed in (a). Under (b), title can be directed to the institution, to a patent management firm, or to the government or another sponsor without the necessity of title first going to the institution.

10. Does the institution enter into agreements with possible inventors (see 8 above) to establish patent rights? Complete only one response:

(a) For all possible inventors	16
(b) For all possible inventors who participate in sponsored research	8
(c) For all possible inventors who are employed	14
(d) For all possible inventors who are employed only in sponsored research	6
(e) No agreements with anyone	<u>4</u>
	48

The twenty-four institutions responding affirmatively to (a) or (b) are well covered insofar as the requirements of sponsored research, particularly government-sponsored research, are concerned. Institutions covered by (c) and (d) are not fully meeting the obligations of sponsored research, since these obligations extend to all persons who participate in or perform part of the work, not only those who are employed by and paid from a grant or contract. The four institutions responding affirmatively to (e) are not in compliance unless the terms of the applicable patent policy can be held to be as legally binding as an individual agreement.

For inventions that result from research which is not sponsored, the thirty institutions designating (a) or (c) are all fairly well covered, except that (c) would not apply, for example, to a graduate student who makes an invention but is not employed by the institution. Among the other seventeen respondents there is a gap that is partly explained by the eleven who responded to 9(c) above (in which referral of an invention to the university is entirely voluntary unless there are sponsored research requirements).

11. Does the institution use, or have its administrators considered using a single agreement to cover both patents and copyrights?

Yes	13
No	35
	48

12. Are one or more patent management firms used? If so, give names.

Yes	40
No	8
	48

Research Corporation was predominant, followed at a distance by Battelle, University Patents, Inc., and others.

13. If a decision is made in the institution (not by a patent management firm) to make a patent application, who makes the decision?

Patent committee	11
Research administration office	9
Associate provost, vice president, or dean for research	9
Research foundation	4
President	3
Vice president for business or finance	2
Patent office	2
Other (such as state, governing board, inventor)	5
No answer	<u>3</u>
	48

14. Does the institution's patent policy require reporting by those covered by the policy (see 8 above) of:

(a) All inventions, even if there is no institutional or sponsor equity	19
(b) All inventions on which patents are applied for, even though there is no institutional or sponsor equity	5
(c) All inventions where there is some institutional or sponsor equity	19
(d) Only those inventions that must be reported to a sponsor	5
	48

Institutions that are diligent in pursuing technology transfers and public use of their inventions probably fall into group (a).

15. What is the basis of the institution's claim for institutional equity in an invention? That is, what is the legal consideration for the institution to obtain rights?

(a) Payment of salary or stipend	29
(b) Provision of funds or facilities	34
(c) Other (such as patent services furnished to inventor or state legal requirements)	7
	<hr/> 70

Twenty-two institutions checked more than one of the answers. Twenty-one of these responded to both (a) and (b). There is a question as to whether the citation of salary or stipend as a consideration for patent rights is reasonable or even legally enforceable.¹ Faculty are not employed to develop patentable inventions, their salaries and promotions are not based on the value of inventions they may make, and where they have tenure, according to Blackwell, "the agreement by the college to continue to employ them would not, so far as they are concerned, constitute consideration."²

The provision of funds and facilities for research does not have the handicap of (a) above and can be used for both employed and non-employed inventors (such as students). Further, the institution would have no equity (unless the inventor would choose to handle it through the institution) in an invention whose conception or reduction to practice does not involve institutional funds or facilities.

16. Is arbitration or some other form of decision-making provided for in the event of a disagreement as to the institution's equity or rights in an invention?

Yes	27
No	21
	<hr/> 48

¹ See Blackwell, T. E. *College Law*. (Washington, D.C.: American Council on Education, 1961.) pp. 175-180, "The Administration of Faculty Patents."

² Ibid, p. 179.

The absence of arbitration provisions in twenty-one institutions is somewhat surprising.

17. Does the institution ever relinquish to the inventor its rights to an invention?

Yes	40
No	8
	<hr/> 48

If so, under what circumstances?

Miscellaneous answers included cases in which sponsor and institution chose not to patent.

18. Does the institution ever handle for inventors those inventions in which it has no equity?

Yes	22
No	26
	<hr/> 48

If "yes," what are the conditions?

Miscellaneous answers included paying more than normal royalties to the inventor.

19. If the institution retains patent rights for inventions, what share of royalties is paid to the inventor(s)? Net or gross?

Maximum possible	1
Net 80% scaled down to 25% as total royalty increases	2
Gross 50% plus first \$3,000, then 25% to \$13,000, then 15%	2
Net 60% 0-\$25,000; 50% \$25,000-\$50,000; 40% \$50,000-\$75,000; 30% above \$75,000	1
Net 50% plus first \$1,000 of institution's net	1
Gross 15% plus 50% of additional net	1
Net 50%	6
Net 50% or gross 25%	1
Net 50% maximum, 20% minimum by arbitration	1
Net 50% after first \$5,000 net	1
Net 50% until expenses, then 20% of gross	1
Net 42.5%	1
Net 40%	1

Net 40% 0-\$50,000; 30% \$50,000-	
\$100,000; 15% above \$100,000	2
Gross 15% until costs recovered, then 40% net	1
Net 33%	1
Gross 28%	1
Net 25%	5
Gross 20%	1
Gross 15%	9
Net 15%	4
Case by case	3
No answer	1
	48

Although the difference between gross and net royalties varies widely from patent to patent, the answers to this question are listed such that the amounts to inventors decrease in order of total royalties from top to bottom. The median answer is 33% of net royalty income for the inventor. Royalty shares to inventors appear to have increased significantly since the 1962 survey referred to at the beginning of this document. The method of giving the inventor a large initial share and decreasing on a sliding scale (indicated in five of the answers) has the merit of providing a climate of greater cooperation among researchers by reducing the potential rewards to the one researcher who is named the legal inventor.

20. What disposition is made of the institution's share of royalties?

Research	26
General institutional funds	10
Research and patent costs	6
Education and research	3
Patent costs	2
Other	1
	48

21. What steps, if any, are taken to insure that all inventions are properly disclosed?

None (although the patent policy may so require)	23
Regulations	11
Periodic reminders	8
Periodic meetings	5
Special educational program	4

Annual invention statement	3
Other	2
	56

Eight institutions used more than one method of obtaining invention disclosures. It is likely that a greater number used more than one method but did not indicate this.

22. Does the institution have any institutional patent agreements (IPAs) with federal agencies? If so, list the agencies.

Both HEW and NSF	10
HEW only	11
NSF only	3
	24

Note that more than half of the responding institutions have no IPAs.

23. In negotiating sponsored research agreements with industry, does the institution accept requirements for sponsor to obtain:

(a) Title to all inventions	27
(b) Exclusive license	26
(c) Exclusive license for limited period	26
(d) Exclusive license for limited period with march-in rights for lack of diligence	28
(e) Nonexclusive license	31
(f) Other	7
	145

Many institutions indicated more than one answer; three questions were the average number of these. The number of (a) and (b) answers could cause concern about the diligence of institutional endeavors for protection of the public interest. Where title to inventions is given to a sponsor as in (a), the inventor's normal share of royalties under a patent policy presumably disappears.

24. Under the arrangements described in (23) above, is there any provision for royalties or other reimbursement to the institution, such as increased indirect costs?

Royalties	21
Increased indirect costs	17

None	10
	<u>48</u>

As in 23(a) above, where the compensation to the institution for patent rights consists of increased indirect costs or is nonexistent, the inventor's share of royalties presumably disappears.

25. For inventions owned or controlled by the institution and not assigned to a patent management organization, which of the categories of (23) above best describe the institution's policies for assignment or licensing?

(a) Title to all inventions	3
(b) Exclusive license	11
(c) Exclusive license for limited period	8
(d) Exclusive license for limited period with march-in rights for lack of diligence	19
(e) Nonexclusive license	13
(f) Other	5
	<u>59</u>

Only eleven institutions indicated more than one answer. Note that many more of the responding institutions indicated willingness to give greater rights to a research sponsor (see 23 above) than to a licensee or assignee.

26. How many patents were applied for on the institution's inventions during the last ten years by:

(a) Inventor	165 (known)
(b) Institution	889
(c) Patent management organization	554
(d) Industrial sponsor	119
(e) Government sponsor	60 (known)
	<u>1787</u>

Although the number for any one institution varies from 1 to 150 for the total of categories (a) through (e) combined, the average is 37 per institution, or about 4 per year per institution. While this may not appear to be a large number, over a ten-year period the total of 1787 for all institutions is significant.

27. How many of the patents listed in (26) above were issued? 937
28. How many of the patents that were issued (see 27 above) were licensed? 469

These answers indicate a high ratio—fifty percent—of patents licensed to patents issued.

APPENDIX A: UNIVERSITY PATENT POLICIES AND PATENT ADMINISTRATION QUESTIONNAIRE

1. Name of Institution
2. Who authorized your patent policy?
 - a. Trustees or regents
 - b. Faculty
 - c. President or chancellor
 - d. Other (please specify)
3. What office administers the patent policy?
4. To whom is that office responsible?
5. Is there a patent committee?
6. What is its composition?
7. What are the functions of the patent committee?
8. Does the patent policy cover:
 - a. Faculty
 - b. Professional staff
 - c. Nonprofessional staff
 - d. Graduate students employed by university
 - e. Graduate students not employed by university
 - f. Undergraduates employed by university
 - g. Undergraduates not employed by university
9. Does your institution control the disposition of patent rights by either (it is understood that a sponsor may subsequently take control):
 - a. Faculty
 - b. Professional staff
 - c. Nonprofessional staff
 - d. Graduate students employed by university
 - e. Graduate students not employed by university
 - f. Undergraduates employed by university
 - g. Undergraduates not employed by university

Taking title to inventions

Or directing or approving disposition by inventors

Or is the referral of an invention to the university voluntary if there is no sponsor requirement

10. Do you enter into agreements with possible inventors (see 8 above) to establish patent rights (complete only one response)
 - a. For all possible inventors from 8 above (specify a, b, c, d . . . etc)
 - b. For all possible inventors from 8 who *participate* in sponsored research (specify a, b, c . . . etc)
 - c. For all possible inventors from 8 who are *employed* (specify a, b, c . . . etc)
 - d. For all possible inventors from 8 who are employed *just* in sponsored research (specify a, b, c . . . etc)
11. Do you or have you considered using a single agreement to cover both patents and copyrights?
12. Is one or more patent management firm utilized and if so give names?
13. If the institution (not a patent management firm) decided to make a patent application, what office makes this decision?
14. Does your patent policy require reporting by those covered by the policy (see 8) of:
 - a. All inventions made even though there is no institutional or sponsor equity, or
 - b. All inventions made on which patents are applied for, even though there is no institutional or sponsor equity, or
 - c. All inventions made where there is some institutional or sponsor equity, or
 - d. Only those inventions made which must be reported to a sponsor
15. What is the basis of the institution's claim for institutional equity in an invention, i.e.

what is the legal consideration for the university to obtain rights?

a. Payment of salary or stipend

b. Provision of funds or facilities

c. Other

16. Is arbitration or some other form of decision-making provided for in the event of a disagreement as to the institution's equity or rights in an invention?
17. Does the institution ever relinquish its rights to an invention back to the inventor? If yes, under what circumstances?
18. Does the institution handle inventions for inventors in which it has no equity? If yes, what are the conditions?
19. If the institution retains patent rights for inventions, what share of royalties is paid to inventor(s)? Net or gross?
20. What disposition is made of institution's share of royalties?
21. What steps if any are taken to assure that all inventions are properly disclosed?
22. Does your institution have any institutional patent agreements (IPAs) with federal agencies? If so, list agencies
23. In negotiating sponsored research agreements with industry, do you accept requirements for sponsor to obtain:
 - a. Title to all inventions
 - b. Exclusive license
 - c. Exclusive license for limited period
 - d. Exclusive license for limited period with march-in rights for lack of diligence
 - e. Nonexclusive license
 - f. Other
24. Under the arrangements described in 23 above; is there any provision for royalties or other reimbursement to the university, such as increased indirect costs?

25. For inventions owned or controlled by the institution and not assigned to a patent management organization, which of the categories of 23 above best describe the institution's policies for assignment or licensing?

26. How many patents were applied for on your institution's inventions during the last ten years by:

Inventor

Institution

Patent Management Organization

Industrial Sponsor

Government Sponsor

27. How many of the above patents issued?

28. How many of the patents in 27 were licensed?

APPENDIX B: INSTITUTIONS RESPONDING TO PATENT SURVEY

University of Akron

Ball State University

Boston College

Brown University

University of California System

California Institute of Technology

University of Cincinnati

Colorado State University Research Foundation

Concordia University

University of Connecticut

Cornell University

University of Dayton

University of Delaware

University of Denver

University of Georgia

University of Guelph

University of Houston

University of Illinois at Urbana-Champaign

University of Iowa

University of Kansas

Kansas State University

Kent State University

University of Kentucky

Universite Laval

University of Maryland

University of Michigan

University of Minnesota

University of Mississippi

University of Nebraska

University of New Mexico

Research Foundation of State University of New York

University of Oklahoma

University of Oregon

Princeton University

Purdue University

Rockefeller University

Rutgers University

Salk Institute

Simon Fraser University

University of Southern California

Southern Illinois University

Texas A&M Research Foundation

University of Toledo

University of Virginia

Virginia Polytechnic Institute and State University

Washington State University

University of Wisconsin

Yale University

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