

UNIVERSITY OF MINNESOTA HEALTH SCIENCES
COST ALLOCATION STUDY

JULY 1, 1985 - JUNE 30, 1986

UNIVERSITY OF MINNESOTA HEALTH SCIENCES

School of Nursing
College of Pharmacy
School of Public Health
School of Dentistry
Medical School
College of Veterinary Medicine
UMD School of Medicine

MAJOR AFFILIATED HOSPITALS

University of Minnesota Hospital & Clinic
Hennepin County Medical Center
St. Paul-Ramsey Medical Center
Veterans Administration Medical Center
Other Public and Private Hospitals

TABLE OF CONTENTS

List of Cost Allocation Study Participants.....	1
The 1985-86 Health Sciences Cost Allocation Study.....	3
1985-86 Health Sciences Total Program Costs Summary-1.....	7
Direct Expense, Indirect Expense, Memo Expense, and Comparative Program Costs and Income	
School of Nursing.....	8
College of Pharmacy.....	12
School of Public Health.....	16
School of Dentistry.....	20
Medical School.....	24
College of Veterinary Medicine.....	28
UMD School of Medicine.....	31
University of Minnesota Hospital & Clinic.....	34
Hennepin County Medical Center.....	36
St. Paul-Ramsey Medical Center.....	40
Veterans Administration Medical Center.....	42
Other Public and Private Hospitals.....	44
Comparative Costs Per Student, 1971-72, 1973-74, 1977-78, 1979-80, 1981-82, 1983-84, and 1985-86.....	46
Graphs of Enrollment, Cost Per Enrolled Student, Use of Funds, Source of Funds.....	48
Use of State Funds in the Health Sciences.....	60

OFFICE OF THE VICE PRESIDENT FOR HEALTH SCIENCES

Neal A. Vanselow, Vice President

HEALTH SCIENCES DEANS AND DIRECTORS

Gilbert S. Banker, Dean, College of Pharmacy
David M. Brown, Dean, Medical School
Robert H. Dunlop, Dean, College of Veterinary Medicine
Richard P. Elzay, Dean, School of Dentistry
Ellen T. Fahy, Dean, School of Nursing
Robert L. Kane, Dean, School of Public Health
Paul C. Royce, Dean, UMD School of Medicine
Robert M. Dickler, General Director, University of Minnesota Hospital & Clinic

ADVISORY/MANAGEMENT PARTICIPANTS

David C. Berg, Assistant to the Vice President for Health Sciences and Coordinator, Cost Allocation Study
Steven F. Johnson, Coordinator, Health Sciences Information Systems
Mahmoud M. Abdel-Monem, Associate Dean, College of Pharmacy
Donna Anderson, Director of Operations, Ramsey Clinic
H. Mead Cavert, Associate Dean, Medical School
Jerome E. Collingham, Associate Finance Director, University of Minnesota Hospital & Clinic
Wayne W. Daley, Administrative Director and Assistant Dean, UMD School of Medicine
E. Wayne Drehmel, Associate Dean and Director of Administration, Medical School
Joanne B. Easter, Administrative Director, School of Public Health
David Edwards, Accounting Manager, Hennepin County Medical Center
Thomas F. Fletcher, Acting Associate Dean, College of Veterinary Medicine
Lawrence Fosbury, Senior Vice President, Hennepin Faculty Associates
Thomas I. Gilson, Assistant Chief Analyst, Management Planning and Information Services
Mellor R. Holland, Associate Dean, School of Dentistry
Gary L. Ingber, Chief, Fiscal Service, Veterans Administration Medical Center
Rudy Jensen, Controller, St. Paul-Ramsey Medical Center
Marlene Marschal, President, St. Paul-Ramsey Medical Center
Daniel B. McLaughlin, Administrator, Hennepin County Medical Center
Nicholas N. Molitor, Assistant Dean, School of Dentistry
Thomas P. Mullon, Director, Veterans Administration Medical Center
Kenneth Peterson, Associate Administrator, Hennepin County Medical Center
Marilyn J. Rasmussen, Administrator, College of Veterinary Medicine
Donald K. Schimmel, Assistant Personnel Officer, Veterans Administration Medical Center
Paul K. Sodergren, Administrative Director, School of Nursing
Gary N. Tykeson, Senior Administrative Director, Medical School
Vilis Vikmanis, Assistant Vice President, Health Sciences
Maurice Wolf, Accounting Manager, Hennepin Faculty Associates

ADMINISTRATIVE CONTRIBUTIONS

Anne M. Cadham, Senior Secretary, School of Dentistry
Marilyn R. Johnson, Principal User Services Specialist, Health Sciences
Kathleen L. Rustad, Principal Secretary, Health Sciences
Charlene F. Thoenke, Executive Assistant, Health Sciences

The 1985-86 Health Sciences Cost Allocation Study

In 1971-72 the University of Minnesota Health Sciences participated in an extensive nationwide Cost Allocation Study with forty other academic health centers. This study was updated in 1973-74, 1977-78, 1981-82, 1983-84 and now for 1985-86.

The study is based upon the pioneering work of Augustus J. Carroll,¹ long recognized for outstanding program analysis and cost finding in medical schools and hospitals.

Cost allocation is particularly necessary in academic health centers because of the presence of combined effort towards benefitting programs. A medical school faculty member may examine a patient while taking notes for a research project in the presence of students. Management decision-making can be facilitated by program cost information that shows the deployment of resources.

Carroll started out with a clear, practical definition of cost finding. Not envisioning cost finding as being an "exact science," he believed program cost allocation to be useful for management purposes given certain assumptions and meticulousness in the handling of data.

Carroll believed a highly useful effort report could be developed with the assistance of faculty and staff once they were informed and became supportive as to the needs for program cost information in the department and college. In a medical school, the programs he defined were: Undergraduate Medical Education, Allied Health Education, Service Teaching, Graduate Medical Education, Other Graduate Education, Post Doctoral Training, Continuing Education, Research, Patient Service, and External Professional Services.

¹ Augustus J. Carroll, A Study of Medical College Costs, American Association of Medical Colleges, 1958.

Interested in the full range of various education services provided by the typical collegiate unit, he advocated program cost-finding as the means of quantifying the various activities and services of the college and seeking ways to inter-relate the income available.

In the Health Sciences disciplines, as in all of higher education, the largest single expenditure item is faculty and staff salaries. Very often, the percentage is 75% or higher. This fact of higher education serves to highlight the need for care and precision in procedures by which faculty and support staff salaries are allocated to programs.

The education, research and service programs are identified and defined from the vantage point of the participants themselves, i.e., the faculty and staff. Written definitions are prepared with input and approval within the college.

These definitions are used as the basis of an effort report by means of which the faculty and staff assign their estimates of average weekly time to the end-purpose programs.

The effort reports are computer-matched with payroll and employee benefit costs so that, for each person, an effort profile converts to a one-person program cost analysis. This information, developed person by person, is aggregated to reflect program costs based upon the salary component across the department and college.

Program time estimates from individuals on effort reports thus lead to the formulation of a program cost structure based upon all staffing costs of the unit. Non-salary expenses are in turn reviewed. Internal studies are undertaken to learn about patterns of use. In most cases non-salary expenses can be allocated to the programs in the same way as faculty and staff allocate their time to programs.

There are additional procedures for adding indirect costs of libraries, student services, physical plant costs, and equipment use.

Memo Costs are considered last. One category is non-Health Sciences service teaching that supplements the coursework taken by students in the Health Sciences colleges. An example would be CLA and Education coursework taken by students in the School of Nursing. Another category of Memo Costs is the estimated worth of preceptor services provided at no cost to students majoring in a Health Sciences discipline.

In using the Health Sciences Cost Allocation Study, it is necessary to use care in determining how many cost layers are appropriate. In looking into tuition recovery issues, it is appropriate to include costs for internal University service teaching but to exclude imputed costs for preceptors who serve without charge.

The procedural basis of the cost-finding methodology in the Minnesota Health Sciences is the Guidelines² from the nationwide 40-center study of the early 1970s.

Through the use of a carefully defined effort report, developed with input and consensus within the college, a highly satisfactory means has been found to determine program costs. Because faculty and staff salary costs comprise a high percentage of total expenditure, the allocation of salaries via effort reporting goes a long way towards identification of full program costs. Indirect costs, service teaching add-ons, and imputed costs are then added and this results in a program cost structure that takes into account all resources.

Employee benefits that can mount up into the range of 25% of payroll are becoming increasingly important. In program cost analysis, the employee benefits are allocated in patterns that match the salary allocations to programs.

² Guidelines for Academic Health Center Cost Allocation Studies, American Association of Medical Colleges, 1971.

Non-salary expenses include such items as laboratory and teaching supplies, communications expense, travel, postage, computer time, and equipment. As in the case of employee benefits, these costs are allocated to programs. Intensive internal studies are encouraged where possible to determine program use. The end result of studying use patterns is typically coming up with a plan to allocate the non-salary expenditures in the same configuration as the effort profile for the unit.

Indirect costs include expenditures not within the control of the collegiate unit. Central operating costs are assigned on a formula basis. Indirect costs are defined within the University for other purposes and this data serves as the source of the information used here.

The last category of costs - Memo Costs - relates to costs such as service teaching taken by students away from their college of enrollment. In the computation of Nursing student costs, for example, it is necessary to include estimates of the value of service teaching taken in Education and CLA. Service teaching, as an add-on, is important to consider in getting at full education costs.

One type of Memo Costs has to do with the imputed value of services obtained either at nominal cost or without cost. Examples include preceptor services that are found in some forms of field or clinical training. While this kind of cost is sometimes useful in understanding total resources involved in programs, these costs are not involved in many of the financial issues such as studies of tuition recovery.

An essential step in the procedure of starting a cost allocation study in a unit is to have the college appoint a cost study coordinator, usually an assistant or associate dean, who understands with great clarity (a) the spectrum of programs within the college and internal relationships, and (b) the finances of the unit at a management level so that concepts of the study can be understood and implemented. Usually such an individual is appointed for a period covering a full year during which the study is undertaken.

In a cost allocation study there is a need to organize and manage the enormous data processing task that is obviously required. Utmost precision and care are necessary when developing procedures of matching individual effort reports against payroll data by computer. Control totals and cross-verification with other systems is required so that the study could be replicated with similar results.

It is also helpful to have the methodology reviewed by an outside agency, particularly if a study is to be used on an update basis over many years. In 1985 Deloitte Haskins & Sells was asked to review the methodology and its effectiveness, particularly the routines involving the completion of effort reports.

The results of the study support the idea that meaningful information can result from a large-scale effort reporting system. One suggestion regarding equipment charging in the indirect cost procedure was adopted. Other procedural enhancements are found in the current update.

Total Program Costs Summary - 1

This is a chart showing program costs for the seven schools and the five affiliated teaching hospitals. The schools are Nursing, Pharmacy, Public Health, Dentistry, Medical School, Veterinary Medicine, and UMD School of Medicine. The hospitals are University of Minnesota Hospital & Clinic, Hennepin County Medical Center, St. Paul-Ramsey Medical Center, Veterans Administration Medical Center, and Other Public & Private Hospitals.

Along the left margin of the charts are programs of the schools. The columns display the resources supplied to these programs by the schools and hospitals. Enrollments are shown for the education programs and costs per enrollment are calculated.

1985-86 HEALTH SCIENCES TOTAL PROGRAM COSTS SUMMARY - 1

	ACADEMIC HEALTH SCIENCES UNITS						TEACHING HOSPITAL UNITS						Memo Item Costs	Total Program Costs	Enrollment	Costs/ Enrollment
	Medical School	School Of Dentistry	School of Public Health	College Of Pharmacy	School Of Nursing	College Of Vet Med	UMD School of Medicine	University Hospital & Clinic	Hennepin City Medical Center	SLP-Ramsey Medical Center	VA Medical Center	Other Public & Private Hospitals				
SCHOOL OF NURSING																
Undergrad B.S.	390,501		18,619		1,743,396			190,587	270,694	123,359	42,211	20,970	446,442	3,246,779	346	9,384
Grad M.S./Ph.D	37,221		138,516		1,459,128								133,632	1,768,497	156	11,337
Continuing Education					88,586									88,586	1,751	
Other Education					50,810									50,810		
COLLEGE OF PHARMACY																
Undergrad B.S.	176,965		1,204	872,603	17,728	63,971		72,890		183,429	6,714	1,642	140,902	1,538,048	226	6,806
Doctor of Pharmacy	72,282		492	623,692	7,241	26,129		129,581	236,720	326,095		14,774	36,665	1,473,671	93	15,846
Grad M.S./Ph.D	103,073		261,828	1,385,166				80,387	21,438	385			184,435	2,036,712	82	24,838
Post Doctoral				231,265										231,265	35	
Continuing Education				191,611				14,032		105,219		960		311,822	2,483	
Other Education				126,027										126,027		
SCHOOL OF PUBLIC HEALTH																
Graduate Master's	121,207		2,814,230	242	543	12,013		31,513	54,313	23,924	272		762,877	3,821,134	336	11,372
Graduate Ph.D			818,953										6,368	825,321	52	15,872
Continuing Education			474,320											474,320	476	
Other Education			1,435,582											1,435,582		
SCHOOL OF DENTISTRY																
Undergrad DDS	615,172	9,653,593	995					36,981	165,399	7,572	13,274	11,837	888,887	11,393,710	423	26,935
Dental Hygiene		693,337		121									43,649	737,107	49	15,043
Grad M.S./Ph.D & Other	183,242	4,470,952	113,177					64,674	52,233	7,394	16,160	90,897	159,543	5,158,272	69	74,758
Continuing Education		759,487										1,299	19,126	779,912	5,156	
Other Education		275,374												275,374		
MEDICAL SCHOOL																
Undergrad M.D.	8,312,847		3,908		1,899			825,526	3,415,701	2,630,425	2,151,577	544,610	7,842,569	25,729,062	1,030	24,980
Grad Med Fellow & Spec	20,117,693							5,206,583	10,013,344	7,009,372	7,626,253	4,035,782	7,549,416	61,558,443	1,116	55,160
Grad M.S./Ph.D	3,536,943	8,069	283,788	8,785		11,946		482,443	894,414	236,129	633,585	40,191	1,214,791	7,351,084	261	28,165
Allied Health	1,699,664		406					944,077	447,841	461,503	624,254	2,778	1,093,066	5,273,589	211	24,993
Continuing Education	3,222,512							355,466	1,102,481	607,697	533,421	408,519	1,776,426	8,006,522	6,958	
Other Education	1,390,622							844,071	132,396	146,113	34,966	458	283,078	2,831,704		
VETERINARY MEDICINE																
Undergrad DVM			74			4,451,142							228,427	4,679,643	310	15,096
Grad M.S./Ph.D	223,326		221,287	32,213		2,381,344							215,915	3,074,085	94	32,703
Continuing Education						1,140,391								1,140,391	1,823	
Other Education						525,233								525,233		
UMD MEDICINE																
Undergrad M.D.						2,395,872							0	2,395,872	96	24,957
Allied Health						17,497							0	17,497		
Undergrad Other						339,419							0	339,419		
Grad Med Fellow & Spec						195,287							0	195,287		
Graduate Other						225,159							0	225,159		
Continuing Education						137,429							0	137,429		
Total Education	40,203,270	15,860,812	6,587,379	3,471,725	3,369,331	8,612,169	3,310,663	9,278,811	16,806,974	11,868,616	11,682,687	5,174,717	23,026,214	159,253,368		
Research	57,754,624	3,479,319	18,926,603	1,771,551	1,009,878	5,320,857	3,001,313						3,981,943	95,246,088		
Patient Service	19,301,865	1,166,185	264,510	177,237	30,441	4,373,799	34,897						1,822,491	27,171,425		
External Professional Service	1,997,272	600,470	702,029	707,742	303,709	322,068	240,927						296,094	5,170,311		
TOTAL COSTS	119,257,031	21,106,786	26,480,521	6,128,255	4,713,359	18,628,893	6,587,800	9,278,811	16,806,974	11,868,616	11,682,687	5,174,717	29,126,742	286,841,192		

Schedule I: Health Sciences Cost Study Expense Summary 1985-86
SCHOOL OF NURSING

	I N S T R U C T I O N										
	Total Expense	Total Instruction	Undergrad B.S. Nursing	Undergrad Other (1)	Graduate M.S. Nursing	Ph.D.	Graduate Other (2)	Continuing Education	Research	Patient Service	External Professional Services
DIRECT EXPENSE											
I. Salaries											
Administrative Classes	294,703	241,579	129,224	6,181	61,997	30,060	1,721	12,396	27,249	0	25,875
Professorial Classes	1,503,478	1,016,462	517,805	5,942	387,111	57,055	23,355	25,194	351,307	14,891	120,818
Student Service Classes	83,097	47,559	41,469	0	6,090	0	0	0	35,538	0	0
Other Academic Classes	52,688	32,761	32,761	0	0	0	0	0	18,052	0	1,875
Civil Service Classes	329,341	263,757	135,914	1,064	85,235	35,800	0	5,744	65,584	0	0
Subtotal Salaries	2,263,307	1,602,118	857,173	13,187	540,433	122,915	25,076	43,334	497,730	14,891	148,568
%	100.0	70.8	37.9	0.6	23.9	5.4	1.1	1.9	22.0	0.7	6.5
II. Employee Benefits	466,326	332,506	174,471	2,821	114,291	26,290	5,364	9,269	98,858	3,185	31,777
III. Stipends	104,389	104,389	0	0	104,389	0	0	0	0	0	0
IV. Total Salary Expense	2,834,022	2,039,013	1,031,644	16,008	759,113	149,205	30,440	52,603	596,588	18,076	180,345
%	100.0	72.1	36.4	0.6	26.8	5.3	1.1	1.9	21.1	0.6	6.2
V. Non-Salary Expense	329,284	233,089	124,708	1,919	78,626	17,883	3,648	6,305	72,414	2,166	21,615
%	100.0	70.8	37.9	0.6	23.9	5.4	1.1	1.9	22.0	0.7	6.5
VI. Total Direct Expense	3,163,306	2,272,102	1,156,352	17,927	837,739	167,088	34,088	58,908	669,002	20,242	201,960
%	100.0	72.0	36.6	0.6	26.5	5.3	1.1	1.9	21.1	0.6	6.3
INDIRECT EXPENSE											
General & Administration	242,864	171,915	91,979	1,415	57,991	13,189	2,691	4,650	53,409	1,598	15,942
Academic Support	320,589	226,934	121,416	1,868	76,550	17,410	3,552	6,138	70,502	2,109	21,044
Student Services	86,632	61,324	32,809	505	20,686	4,705	960	1,659	19,051	570	5,687
Library	131,559	93,126	49,824	767	31,413	7,145	1,458	2,519	28,931	866	8,636
Operation & Maintenance of Physical Plant & Equipment Expenditures	768,409	543,930	291,016	4,477	183,481	41,731	8,513	14,712	168,983	5,056	50,440
VII. Total Indirect Expense	1,550,053	1,097,229	587,044	9,032	370,121	84,180	17,174	29,678	340,876	10,199	101,749
%	100.0	70.8	37.9	0.6	23.9	5.4	1.1	1.9	22.0	0.7	6.5
VIII. TOTAL EXPENSE	4,713,359	3,369,331	1,743,396	26,959	1,207,860	251,268	51,262	88,586	1,009,878	30,441	303,709
%	100.0	71.5	37.0	0.6	25.6	5.3	1.1	1.9	21.4	0.6	6.5

NOTES: (1) Total includes instruction of Pharmacy students = \$24,969; Public Health students = \$543; and non-Health Science students = \$1,447.
(2) Total includes instruction of Medical students = \$1,899; and non-Health Sciences students = \$49,363.

Schedule II: Memo Expense Summary 1985-86
SCHOOL OF NURSING

	I N S T R U C T I O N							External Professional Service
	Total Expense	Total Instruction	Undergrad B.S Nursing	Graduate M.S /Ph.D. Nursing	Continuing Education	Research	Patient Service	
<u>Real Cost and/or Value</u>								
I. Non-Health Sciences Course Work (1)	488,520	488,520	364,344	124,176	0	0	0	0
II. Physician Volunteers	<u>23,640</u>	<u>23,640</u>	<u>14,184</u>	<u>9,456</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
III. Total Real/Replaceable Costs	512,160	512,160	378,528	133,632	0	0	0	0

NOTES: (1) This represents a calculated value/cost of non-Health Science course work not funded within the accounts of the Health Sciences. The calculated value is based upon 2,584 undergraduate credit hours taken @ \$141 and 624 graduate hours taken @ \$199.

Schedule III: Comparative Program Costs and Income
1971-72, 1973-74, 1977-78, and 1979-80
SCHOOL OF NURSING

SCHOOL OF NURSING DIRECT EXPENSE

School of Nursing Programs	1971-72		1973-74		1977-78		1979-80	
	Direct Expense	% of Total	Direct Expense	% of Total	Direct Expense	% of Total	Direct Expense	% of Total
Undergraduate B.S.	\$447,626	54.4%	\$ 532,026	52.9%	\$ 700,925	36.6%	\$ 778,022	31.4%
Graduate M.S., Ph.D.	309,479	37.6	332,797	33.1	655,317	34.2	813,339	32.9
Continuing Education	43,505	5.3	29,943	3.0	82,768	4.3	90,861	3.7
Other Education	920	.1	40,489	4.0	93,896	4.9	112,739	4.5
Total Education	\$801,530	97.4%	\$ 935,255	93.0%	\$1,532,906	80.0%	\$1,794,961	72.5%
Research	\$ 2,238	.3%	\$ 26,591	2.6%	\$ 306,711	16.0%	\$ 500,153	20.2%
Patient Services	6,591	.8	10,899	1.1	8,515	.4	27,991	1.1
External Professional Service	12,550	1.5	32,959	3.3	68,200	3.6	153,721	6.2
Total Costs (1)	\$822,909	100.0%	\$1,005,704	100.0%	\$1,916,332	100.0%	\$2,476,826	100.0%

SCHOOL OF NURSING INCOME BY SOURCE

Income Source	1971-72		1973-74		1977-78		1979-80	
	Income	% of Total	Income	% of Total	Income	% of Total	Income	% of Total
A. State of Minnesota								
1. "OIXX" Maintenance and Operation Funds	NOT AVAILABLE		\$ 745,095	74.1%	\$1,372,637	71.6%	\$1,542,274	62.3%
2. Special State Appropriations			0	0	11,434	.6	132,038	5.3
Sub Total			\$ 745,095	74.1%	\$1,384,071	72.2%	\$1,674,312	67.6%
B. Federal Government								
1. Training Grants and Other Programs			\$ 239,205	23.8%	\$ 316,947	16.5%	\$ 554,344	22.4%
2. Research Grants			0	0	150,898	7.9	184,542	7.4
Sub Total			\$ 239,205	23.8%	\$ 467,845	24.4%	\$ 738,886	29.8%
C. Foundations, Gifts, Endowments and Other Sources								
1. Multi-purpose (Teaching, Research, Service or Combination)			\$ 9,844	1.0%	\$ 49,563	2.6%	\$ 41,752	1.7%
2. Research Projects			11,560	1.1	14,853	.8	21,876	.9
Sub Total			\$ 21,404	2.1%	\$ 64,416	3.4%	\$ 63,628	2.6%
Total Income (2)	\$822,909	100.0%	\$1,005,704	100.0%	\$1,916,332	100.0%	\$2,476,826	100.0%

NOTES: (1) Total Costs is calculated from Health Sciences Cost Study Schedule I.
(2) Total Income is calculated from Direct Expense Report XWH168.

Schedule III: Comparative Program Costs and Income
1981-82, 1983-84, and 1985-86
SCHOOL OF NURSING

School of Nursing Programs	SCHOOL OF NURSING DIRECT EXPENSE					
	1981-82		1983-84		1985-86	
	Direct Expense	% of Total	Direct Expense	% of Total	Direct Expense	% of Total
Undergraduate B.S.	\$ 921,328	32.1%	\$1,034,617	39.8%	\$1,156,352	36.6%
Graduate M.S., Ph.D.	1,045,535	36.4	900,355	34.6	1,004,827	31.8
Continuing Education	89,039	3.1	67,849	2.6	58,908	1.9
Other Education	<u>101,184</u>	<u>3.6</u>	<u>25,612</u>	<u>1.0</u>	<u>52,015</u>	<u>1.7</u>
Total Education	\$2,157,086	75.2%	\$2,028,433	78.0%	\$2,272,102	72.0%
Research	\$ 466,463	16.2%	\$ 388,231	14.9%	\$ 669,002	21.1%
Patient Services	39,489	1.4	14,448	.6	20,242	.6
External Professional Service	<u>206,284</u>	<u>7.2</u>	<u>167,478</u>	<u>6.5</u>	<u>201,960</u>	<u>6.3</u>
Total Costs (1)	<u>\$2,869,322</u>	<u>100.0%</u>	<u>\$2,598,590</u>	<u>100.0%</u>	<u>\$3,163,306</u>	<u>100.0%</u>

Income Source	SCHOOL OF NURSING INCOME BY SOURCE					
	1981-82		1983-84		1985-86	
	Income	% of Total	Income	% of Total	Income	% of Total
A. State of Minnesota						
1. "01XX" Maintenance and Operation Funds	\$1,973,573	68.8%	\$2,232,262	85.9%	\$2,751,946	87.0%
2. Special State Appropriations	<u>202,878</u>	<u>7.1</u>	<u>1,984</u>	<u>.1</u>	<u>6,592</u>	<u>.2</u>
Sub Total	\$2,176,451	75.9%	\$2,234,246	86.0%	\$2,758,538	87.2%
B. Federal Government						
1. Training Grants and Other Programs	\$ 440,488	15.4%	\$ 212,336	8.2%	\$ 238,993	7.6%
2. Research Grants	<u>115,658</u>	<u>4.0</u>	<u>0</u>	<u>0</u>	<u>19,384</u>	<u>.6</u>
Sub Total	\$ 556,146	19.4%	\$ 212,336	8.2%	\$ 258,377	8.2%
C. Foundations, Gifts, Endowments and Other Sources						
1. Multi-purpose (Teaching, Research, Service or Combination)	\$ 64,162	2.2%	\$ 104,406	4.0%	\$ 109,238	3.5%
2. Research Projects	<u>72,563</u>	<u>2.5</u>	<u>47,602</u>	<u>1.8</u>	<u>37,153</u>	<u>1.1</u>
Sub Total	\$ 136,725	4.7%	\$ 152,008	5.8%	\$ 146,391	4.6%
Total Income (2)	<u>\$2,869,322</u>	<u>100.0%</u>	<u>\$2,598,590</u>	<u>100.0%</u>	<u>\$3,163,306</u>	<u>100.0%</u>

NOTES: (1) Total Costs is calculated from Health Sciences Cost Study Schedule I.

(2) Total Income is calculated from Direct Expense Report XWH168. In 1985-86, \$18,483 of Indirect Costs is subtracted from the General ledger Expenditures of \$3,181,789.

Schedule I: Health Sciences Cost Study Expense Summary 1985-86
COLLEGE OF PHARMACY

			I	N	S	T	R	U	C	T	I	O	N			
	Total Expense	Total Instruction	Professional 1st 2 Years	B.S. Externship	Doctor of Pharmacy	Graduate M.S./Ph.D. (1)	Post Doctoral	Continuing Education	Other Undergrad Education (2)	Research	Patient Service	External Professional Services				
DIRECT EXPENSE																
I. Salaries																
Administrative Classes	398,492	302,180	67,423	15,677	40,339	147,680	18,952	12,109	0	52,456	2,076	41,780				
Professorial Classes	1,369,303	792,451	175,172	33,640	194,676	258,568	66,785	50,597	13,013	356,988	40,227	179,637				
Research Classes	23,024	0	0	0	0	0	0	0	0	23,024	0	0				
Student Service Classes	593,650	312,475	50,880	6,325	10,345	244,925	0	0	0	236,512	40,230	4,433				
Student Fellow Classes	26,997	0	0	0	0	0	0	0	0	26,997	0	0				
Other Academic Classes	83,225	3,496	694	154	308	1,978	108	154	100	58,723	2,503	18,503				
Civil Service Classes	530,260	284,726	71,005	11,367	60,285	84,034	27,218	30,817	0	137,791	5,644	102,099				
Subtotal Salaries	3,024,951	1,695,328	365,174	67,163	305,953	737,185	113,063	93,677	13,113	892,491	90,680	346,452				
%	100.0	56.0	12.1	2.2	10.1	24.4	3.7	3.1	0.4	29.5	3.0	11.5				
II. Employee Benefits	492,689	283,374	64,405	12,467	60,576	100,874	23,169	19,196	2,687	128,891	10,338	70,086				
III. Stipends	68,044	68,044	0	0	0	68,044	0	0	0	0	0	0				
IV. Total Salary Expense	3,585,684	2,046,746	429,579	79,630	366,529	906,103	136,232	112,873	15,800	1,021,382	101,018	416,538				
%	100.0	57.0	12.0	2.2	10.2	25.3	3.8	3.1	0.4	28.5	2.8	11.7				
V. Non-Salary Expense	894,884	501,536	108,031	19,869	90,511	218,085	33,448	27,713	3,879	264,030	26,826	102,492				
%	100.0	56.0	12.1	2.2	10.1	24.4	3.7	3.1	0.4	29.5	3.0	11.5				
VI. Total Direct Expense	4,480,568	2,548,282	537,610	99,499	457,040	1,124,188	169,680	140,586	19,679	1,285,412	127,844	519,030				
%	100.0	56.8	12.0	2.2	10.2	25.1	3.8	3.1	0.4	28.7	2.9	11.6				
INDIRECT EXPENSE																
General & Administration	264,179	148,059	31,892	5,866	26,720	64,381	9,874	8,181	1,145	77,944	7,919	30,257				
Academic Support	242,807	136,080	29,312	5,391	24,558	59,172	9,075	7,519	1,053	71,639	7,279	27,809				
Student Service	103,158	57,815	12,453	2,290	10,434	25,140	3,856	3,195	447	30,436	3,092	11,815				
Library	140,512	78,750	16,963	3,120	14,212	34,243	5,252	4,351	609	41,457	4,212	16,093				
Operation & Maintenance of Physical Plant & Expenditures	897,031	502,739	108,290	19,917	90,728	218,608	33,528	27,779	3,889	264,663	26,891	102,738				
VII. Total Indirect Expense	1,647,687	923,443	198,910	36,584	166,652	401,544	61,585	51,025	7,143	486,139	49,393	188,712				
%	100.0	56.0	12.1	2.2	10.1	24.4	3.7	3.1	0.4	29.5	3.0	11.5				
VIII. TOTAL EXPENSE	6,128,255	3,471,725	736,520	136,083	623,692	1,525,732	231,265	191,611	26,822	1,771,551	177,237	707,742				
%	100.0	55.9	12.0	2.2	10.2	24.9	3.1	3.1	0.4	28.9	2.9	12.3				

NOTES: (1) Total includes instruction of Pharmacy students = \$1,385,166; Veterinary Medicine students = \$32,213; Medical students = \$8,785; and non-Health Science students = \$99,568.

(2) Total includes instruction of Public Health students = \$242; Dental Hygiene students = \$121; and non-Health Sciences students = \$26,459.

Schedule II: Memo Expense Summary 1985-86
COLLEGE OF PHARMACY

	I N S T R U C T I O N								
	Total Expense	Total Instruction	Prof. 1st 2 yrs.	B.S. Externship	Doctor of Pharmacy	Graduate M.S./Ph.D.	Post Doctoral	Research	External Professional Service
<u>Real Cost and/or Value</u>									
I. Non-Health Sciences Course Work (1)	236,322	236,322	60,207	0	0	176,115	0	0	0
II. Unreimbursed Outside Pharmacists and lecturers (2)	<u>104,420</u>	<u>104,420</u>	<u>0</u>	<u>65,600</u>	<u>30,500</u>	<u>8,320</u>	<u>0</u>	<u>0</u>	<u>0</u>
III. Total Real/Replaceable Costs	340,742	340,742	60,207	65,600	30,500	184,435	0	0	0

NOTES: (1) This represents a calculated value/cost of non-Health Sciences course work not funded within the accounts of the Health Sciences.
The calculated value is based upon 427 undergraduate credit hours taken @ \$141 and 885 graduate hours taken @ \$199.

(2) This represents instruction of Pharmacy students involved in externship and clerkship programs provided by pharmacists not funded by the Health Sciences.

Schedule III: Comparative Program Costs and Income
1971-72, 1973-74, 1977-78, and 1979-80
COLLEGE OF PHARMACY

College of Pharmacy Programs	College of Pharmacy Direct Expense							
	1971-72		1973-74		1977-78		1979-80	
	Direct Expense	% of Total	Direct Expense	% of Total	Direct Expense	% of Total	Direct Expense	% of Total
Undergrad B.S.	\$ 370,608	37.0%	\$ 613,521	42.9%	\$ 878,931	38.1%	\$ 783,592	32.0%
Doctor of Pharmacy	35,189	3.5	105,253	7.4	194,031	8.4	285,215	11.6
Graduate M.S., Ph.D.	143,828	14.4	184,888	12.9	286,900	12.5	418,729	17.1
Post Doctoral	10,208	1.0	41,581	2.9	11,257	.5	160,614	6.6
Postgraduate/Continuing Education	17,828	1.8	44,674	3.1	67,777	2.9	76,372	3.1
Other Education	40,053	4.0	26,838	1.8	67,511	2.9	29,677	1.2
Total Education	\$ 617,714	61.7%	\$1,016,755	71.0	\$1,506,407	65.3%	\$1,754,199	71.6%
Research	\$ 290,734	29.0%	\$ 306,270	21.4%	\$ 506,127	21.9%	\$ 414,099	16.9%
Service	0	0	0	0	0	0	0	0
External Professional Service	93,076	9.3	108,662	7.6	295,833	12.8	282,431	11.5
Total Costs (1)	\$1,001,524	100.0%	\$1,431,687	100.0%	\$2,308,367	100.0%	\$2,450,729	100.0%

Income Source	College of Pharmacy Income by Source							
	1971-72		1973-74		1977-78		1979-80	
	Income	% of Total	Income	% of Total	Income	% of Total	Income	% of Total
A. State of Minnesota								
1. "OIXX" Maintenance and Operation Funds	NOT AVAIL ABLE		\$ 888,477	62.1%	\$1,437,638	62.3%	\$1,670,693	68.2%
2. Special State Appropriations			0	0	55,802	2.4	134,867	5.5
Sub Total			\$ 888,477	62.1%	\$1,493,440	64.7%	\$1,805,560	73.7%
B. Federal Government								
1. Training Grants and Other Programs			\$ 236,921	16.5%	\$ 432,150	18.7%	\$ 184,560	7.5%
2. Research Grants			213,286	14.9	150,399	6.5	230,350	9.4
Sub Total			\$ 450,207	31.4%	\$ 582,549	25.2%	\$ 414,910	16.9%
C. Foundations, Gifts, Endowments and Other Sources								
1. Multi-purpose (Teaching, Research, Service or Combination)			\$ 57,455	4.0%	\$ 208,006	9.0%	\$ 203,473	8.3%
2. Research Projects			35,548	2.5	24,372	1.1	26,786	1.1
Sub Total			\$ 93,003	6.5%	\$ 232,378	10.1%	\$ 230,259	9.4%
Total Income (2)	\$1,001,524	100.0%	\$1,431,687	100.0%	\$2,308,367	100.0%	\$2,450,729	100.0%

NOTES: (1) Total Costs is calculated from Health Sciences Cost Study Schedule I.
(2) Total Income is calculated from Direct Expense Report XWH168.

Schedule III: Comparative Program Costs and Income
1981-82, 1983-84, and 1985-86
COLLEGE OF PHARMACY

College of Pharmacy Direct Expense						
College of Pharmacy Programs	1981-82		1983-84		1985-86	
	Direct Expense	% of Total	Direct Expense	% of Total	Direct Expense	% of Total
Undergrad B.S.	\$ 789,306	24.7%	\$ 697,257	20.8%	\$ 637,109	14.2%
Doctor of Pharmacy	408,746	12.8	420,160	12.6	457,040	10.2
Graduate M.S., Ph.D.	1,057,420	33.1	1,040,587	31.1	1,124,188	25.1
Post Doctoral	76,796	2.4	201,798	6.0	169,680	3.8
Postgraduate/Continuing Education	81,722	2.6	80,947	2.4	140,586	3.1
Other Education	27,476	.8	29,987	.9	19,679	.4
Total Education	<u>\$2,441,466</u>	<u>76.4%</u>	<u>\$2,470,736</u>	<u>73.8%</u>	<u>\$2,548,282</u>	<u>56.8%</u>
Research	\$ 395,786	12.4%	\$ 325,826	9.7%	\$1,285,412	28.7%
Service	0	0	139,950	4.2	127,844	2.9
External Professional Service	357,796	11.2	406,262	12.3	519,030	11.6
Total Costs (1)	<u>\$3,195,048</u>	<u>100.0%</u>	<u>\$3,342,774</u>	<u>100.0%</u>	<u>\$4,480,568</u>	<u>100.0%</u>

College of Pharmacy Income by Source						
Income Source	1981-82		1983-84		1985-86	
	Income	% of Total	Income	% of Total	Income	% of Total
A. State of Minnesota						
1. "OLXX" Maintenance and Operation Funds	\$1,915,173	59.9%	\$2,268,198	67.9%	\$2,876,217	64.2%
2. Special State Appropriations	278,261	8.7	17,098	.5	11,038	0.2
Sub Total	<u>\$2,193,434</u>	<u>68.6%</u>	<u>\$2,285,296</u>	<u>68.4</u>	<u>\$2,887,255</u>	<u>64.4%</u>
B. Federal Government						
1. Training Grants and Other Programs	\$ 72,975	2.3%	\$ 30,410	.9	\$ 19,182	0.4%
2. Research Grants	394,925	12.4	371,475	11.1	587,528	13.1
Sub Total	<u>\$ 467,900</u>	<u>14.7%</u>	<u>\$ 401,885</u>	<u>12.0%</u>	<u>\$ 606,710</u>	<u>13.5%</u>
C. Foundations, Gifts, Endowments and Other Sources						
1. Multi-purpose (Teaching, Research, Service or Combination)	\$ 480,978	15.1%	\$ 546,229	16.3	\$ 810,114	18.1%
2. Research Projects	52,736	1.6	109,364	3.3	176,489	3.9
Sub Total	<u>\$ 533,714</u>	<u>16.7%</u>	<u>\$ 655,593</u>	<u>19.6%</u>	<u>\$ 986,603</u>	<u>22.0%</u>
Total Income (2)	<u>\$3,195,048</u>	<u>100.0%</u>	<u>\$3,342,774</u>	<u>100.0%</u>	<u>\$4,480,568</u>	<u>100.0%</u>

NOTES: (1) Total Costs is calculated from Health Sciences Cost Study Schedule I.
(2) Total Income is calculated from Direct Expense Report XWH168. In 1985-86, \$665,984 of Affiliate Hospital funds and \$184,532 of Indirect Costs is subtracted from the General ledger Expenditures of \$5,331,084.

Schedule I: Health Sciences Cost Study Expense Summary 1985-86
SCHOOL OF PUBLIC HEALTH

	<u>I N S T R U C T I O N</u>									
	<u>Total Expense</u>	<u>Total Instruction</u>	<u>Undergrad Education (1)</u>	<u>Graduate Masters (2)</u>	<u>Graduate Ph.D.</u>	<u>Continuing Education</u>	<u>Certificate Program</u>	<u>Research</u>	<u>Patient Service</u>	<u>Ext. Prof. Service</u>
<u>DIRECT EXPENSE</u>										
<u>I. Salaries</u>										
Administrative Classes	1,102,963	499,744	14,559	425,135	37,310	16,809	5,931	491,366	936	110,917
Professorial Classes	2,944,361	1,298,190	57,598	962,997	195,014	54,232	28,349	1,470,237	23,484	152,450
Research Classes	42,279	33	0	33	0	0	0	5,648	0	36,598
Student Service Classes	652,380	125,392	5,105	97,777	828	0	21,682	516,345	10,643	0
Student Fellow Classes	224,824	139,108	0	76,107	63,001	0	0	85,716	0	0
Other Academic Classes	649,823	105,527	7,550	31,883	7,878	40,996	17,220	541,146	0	3,150
Civil Service Classes	6,785,941	784,650	14,673	546,714	88,443	111,979	22,841	5,882,035	90,811	28,445
Subtotal Salaries	12,402,571	2,952,644	99,485	2,140,646	392,474	224,016	96,023	8,992,493	125,874	331,560
%	100.0	23.9	0.8	17.3	3.2	1.8	0.8	72.5	1.0	2.6
<u>II. Employee Benefits</u>	2,176,543	507,650	17,823	371,419	62,064	42,305	14,039	1,584,518	21,761	62,614
<u>III. Stipends</u>	385,537	385,537	0	385,537	0	0	0	0	0	0
<u>IV. Total Salary Expense</u>	14,964,651	3,845,831	117,308	2,897,602	454,538	266,321	110,062	10,577,011	147,635	394,174
%	100.0	25.7	0.8	19.4	3.0	1.8	0.7	70.7	1.0	2.6
<u>V. Non-Salary Expense</u>	6,563,950	1,562,660	52,652	1,132,918	207,713	118,558	50,819	4,759,197	66,618	175,475
%	100.0	23.9	0.8	17.3	3.2	1.8	0.8	72.5	1.0	2.6
<u>VI. Total Direct Expense</u>	21,528,601	5,408,491	169,960	4,030,520	662,251	384,879	160,881	15,336,208	214,253	569,649
%	100.0	25.1	0.8	18.7	3.1	1.8	0.7	71.2	1.0	2.7
<u>INDIRECT EXPENSE</u>										
General & Administration	1,491,904	355,174	11,967	257,498	47,211	26,947	11,551	1,081,706	15,141	39,883
Academic Support	640,960	152,591	5,141	110,628	20,283	11,577	4,962	464,729	6,505	17,135
Student Service	299,158	71,220	2,400	51,634	9,467	5,403	2,316	216,905	3,036	7,997
Library	435,672	103,719	3,495	75,195	13,787	7,869	3,373	315,884	4,422	11,647
Operation & Maintenance of Physical Plant & Equipment Expenditures	2,084,226	496,184	16,718	359,731	65,954	37,645	16,136	1,511,171	21,153	55,718
<u>VII. Total Indirect Expense</u>	4,951,920	1,178,888	39,721	854,686	156,702	89,441	38,338	3,590,395	50,257	132,380
%	100.0	23.9	0.8	17.3	3.2	1.8	0.8	72.5	1.0	2.6
<u>VIII. TOTAL EXPENSE</u>	26,480,521	6,587,379	209,681	4,885,206	818,953	474,320	199,219	18,926,603	264,510	702,029
%	100.0	24.9	0.8	18.4	3.1	1.8	0.8	71.5	1.0	2.6

NOTES: (1) Total includes instruction of Nursing students = \$18,619; Medical students = \$3,908; Pharmacy students = \$1,696; Dentistry students = \$995; Allied Health students = \$406; Veterinary Medicine students = \$74; and non-Health Sciences students = \$183,983.
(2) Total includes instruction of Public Health students = \$2,814,230; Medical students = \$283,788; Pharmacy students = \$261,828; Veterinary Medicine students = \$221,287; Nursing students = \$138,516; Dentistry students = \$113,177; and non-Health Sciences students = \$1,052,380.

Schedule II: Memo Expense Summary 1985-86
SCHOOL OF PUBLIC HEALTH

	Total Expense	Total Instruction	I N S T R U C T I O N					Ext. Prof. Service
			Undergrad Education	Graduate Master's	Graduate Ph.D.	Continuing Education	Research	
<u>Real Cost and/or Value</u>								
I. Non-Health Sciences Course Work (1)	241,290	241,290	0	234,922	6,368	0	0	0
II. Hospital & Health Care Administration:								
Residency Costs Exclusive of Participating Teaching Hospitals in this study (2)	<u>527,955</u>	<u>527,955</u>	<u>0</u>	<u>527,955</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
III. Total Real/Replaceable Costs	769,245	769,245	0	762,877	6,368	0	0	0

NOTES: (1) This represents a calculated value/cost of non-Health Sciences course work not funded within the accounts of the Health Sciences. The calculated value is based upon 856 undergraduate credit hours taken @ \$141 and 606 graduate hours taken @ \$199.
(2) Estimated uncompensated service of preceptor organizations around the country which supervise the residency experiences of the Master's program (includes stipends, benefits, administrator's time, and other administrative costs).

Schedule III: Comparative Program Costs and Income
1971-72, 1973-74, 1977-78, and 1979-80
SCHOOL OF PUBLIC HEALTH

School of Public Health Direct Expense

School of Public Health Programs	1971-72		1973-74		1977-78		1979-80	
	Direct Expense	% of Total	Direct Expense	% of Total	Direct Expense	% of Total	Direct Expense	% of Total
Graduate Masters	\$1,249,793	44.9%	\$1,409,410	35.0%	\$2,679,791	35.9%	\$3,157,539	34.0%
Graduate Ph.D.	304,928	11.0	213,637	5.3	233,750	3.1	317,362	3.4
Continuing Education	118,546	4.3	272,700	6.6	541,702	7.2	531,639	5.7
Other Education	106,340	3.8	204,380	5.1	183,215	2.5	155,777	1.7
Total Education	\$1,779,607	64.0%	\$2,100,127	52.0%	\$3,638,458	48.7%	\$4,162,317	44.8%
Research	\$ 879,915	31.6%	\$1,750,825	43.4%	\$3,597,900	48.1%	\$4,867,866	52.4%
Patient Service	9,434	.3	30,049	.7	36,567	.5	60,386	.6
External Professional Service	113,660	4.1	154,431	3.9	205,554	2.7	202,692	2.2
Total Costs (1)	\$2,782,616	100.0%	\$4,035,432	100.0%	\$7,478,479	100.0%	\$9,293,261	100.0%

School of Public Health Income by Source

Income Source	1971-72		1977-78		1979-80	
	Income	% of Total	Income	% of Total	Income	% of Total
A. State of Minnesota						
1. "OJXX" Maintenance and Operation Funds	NOT AVAILABLE		\$ 710,293	17.6%	\$1,434,913	19.2%
2. Special State Appropriations			0	0	506,430	6.8
Sub Total			\$ 710,293	17.6%	\$1,941,343	26.0%
B. Federal Government						
1. Training Grants and Other Programs			\$1,290,151	32.0%	\$1,957,381	26.2%
2. Research Grants			1,500,088	37.2	2,832,212	37.8
Sub Total			\$2,790,239	69.2%	\$4,789,593	64.0%
C. Foundations, Gifts, Endowments and Other Sources						
1. Multi-purpose (Teaching, Research, Service or Combination)			\$ 267,394	6.6%	\$ 538,671	7.2%
2. Research Projects			267,506	6.6	208,872	2.8
Sub Total			\$ 534,900	13.2%	\$ 747,543	10.0%
Total Income (2)	\$2,782,616	100.0%	\$4,035,432	100.0%	\$7,478,479	100.0%

NOTES: (1) Total Costs is calculated from Health Sciences cost Study Schedule I.
(2) Total Income is calculated from Direct Expense Report XWH168.

Schedule III: Comparative Program Costs and Income
1981-82, 1983-84, and 1985-86
SCHOOL OF PUBLIC HEALTH

School of Public Health Programs	School of Public Health Direct Expense					
	1981-82		1983-84		1985-86	
	Direct Expense	% of Total	Direct Expense	% of Total	Direct Expense	% of Total
Graduate Masters	\$ 3,859,377	30.3%	\$ 2,890,291	22.5%	\$ 4,030,520	18.7%
Graduate Ph.D.	370,514	2.9	404,945	3.1	662,251	3.1
Continuing Education	678,880	5.3	435,903	3.4	384,879	1.8
Other Education	184,988	1.5	195,616	1.5	330,841	1.5
Total Education	\$ 5,093,759	40.0%	\$ 3,926,755	30.5%	\$ 5,408,491	25.1%
Research	\$ 7,238,015	56.8%	\$ 8,500,940	66.1%	\$15,336,208	71.2%
Patient Service	76,602	.6	138,399	1.1	214,253	1.0
External Professional Service	335,621	2.6	290,781	2.3	569,649	2.7
Total Costs (1)	\$12,743,997	100.0%	\$12,856,875	100.0%	\$21,528,601	100.0%

Income Source	School of Public Health Income by Source					
	1981-82		1983-84		1985-86	
	Income	% of Total	Income	% of Total	Income	% of Total
A. State of Minnesota						
1. "DIXX" Maintenance and Operation Funds	\$ 2,278,104	17.9%	\$ 3,399,592	26.4%	\$ 4,338,857	20.2%
2. Special State Appropriations	931,145	7.3	263,272	2.1	290,302	1.3
Sub Total	\$ 3,209,249	25.2%	\$ 3,662,864	28.5%	\$ 4,629,159	21.5%
B. Federal Government						
1. Training Grants and Other Programs	\$ 2,041,705	16.0%	\$ 1,097,768	8.5%	\$ 1,744,146	8.1%
2. Research Grants	6,079,533	47.7	6,423,646	50.0	12,325,687	57.3
Sub Total	\$ 8,121,238	63.7%	\$ 7,521,414	58.5%	\$14,069,833	65.4%
C. Foundations, Gifts, Endowments and Other Sources						
1. Multi-purpose (Teaching, Research, Service or Combination)	\$ 858,200	6.7%	\$ 981,639	7.6%	\$ 1,388,337	6.4%
2. Research Projects	555,310	4.4	690,958	5.4	1,441,272	6.7
Sub Total	\$ 1,413,510	11.1%	\$ 1,672,597	13.0%	\$ 2,829,609	13.1%
Total Income (2)	\$12,743,997	100.0%	\$12,856,875	100.0%	\$21,528,601	100.0%

NOTES: (1) Total Costs is calculated from Health Sciences Cost Study Schedule I.

(2) Total Income is calculated from Direct Expense Report XWH168. In 1985-86, \$4,272,740 of Indirect Costs is subtracted from the General Ledger Expenditures of \$25,801,341.

Schedule I: Health Sciences Cost Study Expense Summary 1985-86
SCHOOL OF DENTISTRY

	I N S T R U C T I O N										
	Total Expense	Total Instruction	Undergrad D.D.S	Dental Hygiene	Undergrad Other (1)	Graduate MS/Ph.D (2)	Graduate Other	Postgrad & Cont. Educ.	Research	Patient Service	Ext. Prof. Services
DIRECT EXPENSE											
I. Salaries											
Administrative Classes	1,382,287	973,010	569,980	54,222	16,146	199,807	55,221	77,634	241,421	57,880	109,976
Professorial Classes	4,260,240	3,014,038	1,843,406	201,610	44,208	622,328	128,230	174,256	849,410	242,322	154,470
Student Service Classes	229,096	171,669	80,899	2,029	0	47,791	37,851	3,099	42,042	15,204	181
Student Fellow Classes	319,682	296,592	4,240	1,333	544	56,322	233,301	852	14,614	7,953	523
Other Academic Classes	182,738	87,915	63,270	0	2,307	12,012	2,808	7,518	69,939	21,823	3,061
Civil Service Classes	4,517,446	3,634,089	2,402,725	98,825	65,384	575,233	363,401	128,521	583,027	258,689	41,641
Subtotal Salaries	10,891,489	8,177,313	4,964,520	358,019	128,589	1,513,493	820,812	391,880	1,800,453	603,871	309,852
%	100.0	75.1	45.6	3.3	1.2	13.9	7.5	3.6	16.5	5.5	2.9
II. Employee Benefits	1,933,160	1,440,902	912,007	66,289	23,933	263,428	102,737	72,508	325,934	108,541	57,783
III. Stipends	97,838	97,838	46,526	0	0	2,768	47,919	625	0	0	0
IV. Total Salary Expense	12,922,487	9,716,053	5,923,053	424,308	152,522	1,779,689	971,468	465,013	2,126,387	712,412	367,635
%	100.0	75.2	45.8	3.3	1.2	13.8	7.5	3.6	16.5	5.5	2.8
V. Non-Salary Expense	3,527,942	2,648,774	1,608,094	115,969	41,652	490,247	265,875	126,937	583,198	195,604	100,366
%	100.0	75.1	45.6	3.3	1.2	13.9	7.5	3.6	16.5	5.5	2.9
VI. Total Direct Expense	16,450,429	12,364,827	7,531,147	540,277	194,174	2,269,936	1,237,343	591,950	2,709,585	908,016	468,001
%	100.0	75.2	45.8	3.3	1.2	13.8	7.5	3.6	16.5	5.5	2.8
INDIRECT EXPENSE											
General & Administration	1,278,539	959,925	582,780	42,027	15,095	177,667	96,354	46,002	211,353	70,888	36,373
Academic Support	884,336	663,958	403,095	29,069	10,441	122,888	66,646	31,819	146,188	49,031	25,159
Student Services	233,205	175,090	106,299	7,666	2,753	32,406	17,575	8,391	38,551	12,930	6,634
Library	313,536	235,402	142,915	10,306	3,702	43,569	23,629	11,281	51,830	17,384	8,920
Operation & Maintenance of Physical Plant & Equipment Expenditures	1,946,741	1,461,610	887,357	63,992	22,984	270,521	146,712	70,044	321,812	107,936	55,383
VII. Total Indirect Expense	4,656,357	3,495,985	2,122,446	153,060	54,975	647,051	350,916	167,537	769,734	258,169	132,469
%	100.0	75.1	45.6	3.3	1.2	13.9	7.5	3.6	16.5	5.5	2.9
VIII. TOTAL EXPENSE	21,106,786	15,860,812	9,653,593	693,337	249,149	2,916,987	1,588,259	759,487	3,479,319	1,166,185	600,470
%	100.0	75.1	45.7	3.3	1.2	13.8	7.5	3.6	16.5	5.5	2.9

NOTES: (1) Total includes instruction of non-Health Science students = \$249,149.

(2) Total includes instruction of Dentistry students = \$2,882,693; Medical students = \$8,069; and non-Health Sciences students = \$26,225.

Schedule II: Memo Expense Summary 1985-86
SCHOOL OF DENTISTRY

		I N S T R U C T I O N									
<u>Real Cost and/or Value</u>		<u>Total Expense</u>	<u>Total Instruction</u>	<u>Undergrad D.D.S.</u>	<u>Dental Hygiene</u>	<u>Graduate MS/Ph.D.</u>	<u>Graduate Other</u>	<u>Postgrad & Cont. Educ.</u>	<u>Research</u>	<u>Patient Service</u>	<u>Ext. Prof. Service</u>
I.	Non-Health Sciences Course Work (1)	77,105	77,105	0	2,679	74,426	0	0	0	0	0
II.	Volunteer and Clinical Faculty (2)	<u>868,436</u>	<u>816,378</u>	<u>671,165</u>	<u>40,970</u>	<u>53,630</u>	<u>31,487</u>	<u>19,126</u>	<u>6,323</u>	<u>26,021</u>	<u>19,714</u>
III.	Total Real/Replaceable Costs	945,541	893,483	671,165	43,649	128,056	31,487	19,126	6,323	26,021	19,714

NOTES: (1) This represents a calculated value/cost of non-Health Sciences course work not funded within the accounts of the Health Sciences. The calculated value is based upon 19 undergraduate credit hours taken @ \$141 and 374 graduate hours taken @ \$199. credit hour.

(2) Includes contributions from voluntary faculty (\$241,028) and an estimated dollar amount (\$627,408) which would be paid to part-time clinical faculty if they were paid at the full-time salary base.

Schedule III: Comparative Program Costs and Income
1971-72, 1973-74, 1977-78, and 1979-80
SCHOOL OF DENTISTRY

School of Dentistry Programs	School of Dentistry Direct Expense							
	1971-72		1973-74		1977-78		1979-80	
	Direct Expense	% of Total	Direct Expense	% of Total	Direct Expense	% of Total	Direct Expense	% of Total
Undergraduate D.D.S.	\$1,774,917	47.0%	\$3,312,774	56.0%	\$4,587,827	50.4%	\$ 5,361,508	49.9%
Dental Hygiene	196,338	5.2	254,992	4.3	1,044,830	11.5	962,168	8.9
Dental Assisting	111,545	3.0	113,334	1.9	198,965	2.2	213,356	2.0
Graduate M.S., Ph.D.	665,143	17.6	781,246	13.2	1,150,957	12.7	1,491,492	13.9
Graduate Other	147,333	3.9	127,966	2.2	267,454	2.9	338,583	3.1
Postgrad/Continuing Education	83,085	2.2	86,944	1.4	268,087	2.9	365,125	3.4
Other Education	144,649	3.8	182,137	3.1	101,631	1.1	188,835	1.8
Total Education	\$3,123,010	82.7%	\$4,859,393	82.1%	\$7,619,751	83.7%	\$ 8,921,067	83.0%
Research	\$ 490,219	13.0%	\$ 838,037	14.2%	\$1,016,355	11.2%	\$ 1,245,963	11.6%
Patient Service	(not categorized)		137,881	2.3	269,309	3.0	313,933	2.9
External Professional Service	163,401	4.3	80,105	1.4	193,270	2.1	265,651	2.5
Total Costs (1)	\$3,776,630	100.0%	\$5,915,416	100.0%	\$9,098,685	100.0%	\$10,746,614	100.0%

Income Source	School of Dentistry Income by Source							
	1971-72		1973-74		1977-78		1979-80	
	Income	% of Total	Income	% of Total	Income	% of Total	Income	% of Total
A. State of Minnesota								
1. "OLXX" Maintenance and Operation Funds	NOT AVAILABLE		\$3,446,060	58.3%	\$6,655,317	73.2%	\$ 7,895,546	73.5%
2. Special State Appropriations			0	0	494,279	5.4	86,122	.8
Subtotal			\$3,446,060	58.3%	\$7,149,596	78.6%	\$ 7,981,668	74.3%
B. Federal Government								
1. Training Grants and Other Programs			\$1,583,097	26.7%	\$1,126,793	12.4%	\$ 564,682	5.2%
2. Research Grants			690,296	11.7	480,557	5.3	449,898	4.2
Subtotal			\$2,273,393	38.4%	\$1,607,350	17.7%	\$ 1,014,580	9.4%
C. Foundations, Gifts, Endowments and Other Sources								
1. Multi-purpose (Teaching, Research, Service or Combination)			\$ 166,134	2.8%	\$ 312,681	3.4%	\$ 1,360,396	12.7%
2. Research Projects			29,829	.5	29,058	.3	389,970	3.6
Subtotal			\$ 195,963	3.3%	\$ 341,739	3.7%	\$ 1,750,366	16.3%
Total Income (2)	\$3,776,630	100.0%	\$5,915,416	100.0%	\$9,098,685	100.0%	\$10,746,614	100.0%

NOTES: (1) Total Costs is calculated from Health Sciences Cost Study Schedule I.
(2) Total Income is calculated from Direct Expense Report XWH168.

Schedule III: Comparative Program Costs and Income
1981-82, 1983-84, and 1985-86
SCHOOL OF DENTISTRY

School of Dentistry Programs	School of Dentistry Direct Expense					
	1981-82		1983-84		1985-86	
	Direct Expense	% of Total	Direct Expense	% of Total	Direct Expense	% of Total
Undergraduate D.D.S.	\$ 6,112,322	46.6%	\$ 6,702,582	48.6%	\$ 7,531,147	45.8%
Dental Hygiene	688,599	5.3	477,146	3.5	540,277	3.3
Dental Assisting	170,781	1.3	0	0	0	0
Graduate M.S., Ph.D.	1,875,785	14.3	2,278,382	16.5	2,269,936	13.8
Graduate Other	433,981	3.3	511,437	3.7	1,237,343	7.5
Postgrad/Continuing Education	387,829	3.0	377,787	2.7	591,950	3.6
Other Education	54,007	.4	128,589	.9	194,174	1.2
Total Education	\$ 9,723,304	74.2%	\$10,475,923	75.9%	\$12,364,827	75.2%
Research	\$ 2,229,089	17.0%	\$ 2,253,631	16.4%	\$ 2,709,585	16.5%
Patient Service	540,666	4.1	620,200	4.5	908,016	5.5
External Professional Service	621,366	4.7	432,854	3.2	468,001	2.8
Total Costs (1)	\$13,114,425	100.0%	\$13,782,608	100.0%	\$16,450,429	100.0%

Income Source	School of Dentistry Income by Source					
	1981-82		1983-84		1985-86	
	Income	% of Total	Income	% of Total	Income	% of Total
A. State of Minnesota						
1. "01XX" Maintenance and Operation Funds	\$ 7,910,088	60.3%	\$ 8,441,725	61.2%	\$ 9,319,865	56.7%
2. Special State Appropriations	91,881	.7	105,654	.8	130,679	0.8
Subtotal	\$ 8,001,969	61.0%	\$ 8,547,379	62.0%	\$ 9,450,544	57.4%
B. Federal Government						
1. Training Grants and Other Programs	\$ 234,432	1.8%	\$ 79,576	.6%	\$ 131,873	0.8%
2. Research Grants	1,000,749	7.6	700,341	5.1	1,029,553	6.3
Subtotal	\$ 1,235,181	9.4%	\$ 779,917	5.7%	\$ 1,161,426	7.1%
C. Foundations, Gifts, Endowments and Other Sources						
1. Multi-purpose (Teaching, Research, Service or Combination)	\$3,260,912	24.9%	\$ 4,260,039	30.9%	\$ 5,571,470	33.9%
2. Research Projects	616,363	4.7	195,273	1.4	266,989	1.6
Subtotal	\$ 3,877,275	29.6%	\$ 4,455,312	32.3%	\$ 5,838,459	35.5%
Total Income (2)	\$13,114,425	100.0%	\$13,782,608	100.0%	\$16,450,429	100.0%

NOTES: (1) Total Costs is calculated from Health Sciences Cost Study Schedule I.
(2) Total Income is calculated from Direct Expense Report XWH168. In 1985-86, \$247,249 of Affiliate Hospital funds and \$447,653 of Indirect Costs is subtracted from the General Ledger Expenditures of \$17,145,331.

Schedule I: Health Sciences Cost Study Expense Summary 1985-86
MEDICAL SCHOOL

	I N S T R U C T I O N													
	Total Expense	Total Instruction	Undergrad M.D.	Allied Health	Undergrad Dentistry	Undergrad Pharmacy	Undergrad Nursing	Undergrad Other	Grad. Med Fellow & Specialist	Graduate Other (1)	Postgrad & Cont. Educ.	Research	Patient Service	External Professional Service
DIRECT EXPENSE														
I. Salaries														
Administrative Classes	3,910,338	2,530,023	717,215	125,958	23,648	16,492	15,001	56,194	1,033,946	301,272	240,297	655,978	581,614	142,723
Professorial Classes	22,941,322	9,870,516	2,082,472	417,272	154,467	42,028	127,982	197,951	4,462,417	1,510,261	875,666	8,589,590	3,878,914	602,302
Research Classes	48,618	2,721	480	4	0	0	6	14	20	1,157	1,040	37,337	8,435	125
Student Service Classes	2,890,964	417,019	118,026	5,824	50,678	36,082	9,708	20,276	28,939	131,542	15,944	2,409,714	63,983	248
Student Fellow Classes	6,083,439	3,675,375	353,354	6,780	25,231	28,502	4,809	11,716	3,148,223	17,193	79,567	1,284,403	1,095,957	27,704
Other Academic Classes	1,961,276	467,459	134,253	28,866	4,860	0	8,115	5,707	145,916	60,105	79,637	1,230,798	227,921	35,098
Civil Service Classes	24,620,026	3,959,789	870,141	298,973	68,128	12,792	38,575	109,243	1,749,667	421,794	390,476	16,147,987	4,280,721	231,529
Subtotal Salaries	62,455,983	20,922,902	4,275,941	883,677	327,012	135,896	204,196	401,101	10,569,128	2,443,324	1,682,627	30,355,807	10,137,545	1,039,729
%	100.0	33.3	6.8	1.4	.5	.2	.3	.6	16.9	3.9	2.7	48.6	16.2	1.9
II. Employee Benefits														
	10,360,327	3,260,366	737,011	168,742	48,643	13,814	36,744	71,503	1,431,955	444,502	307,452	5,164,841	1,739,121	195,999
III. Stipends														
	695,116	695,116	168,000	0	0	0	0	7,702	375,298	144,116	0	0	0	0
IV. Total Salary Expense														
	73,511,426	24,878,384	5,180,952	1,052,419	375,655	149,710	240,940	480,306	12,376,381	3,031,942	1,990,079	35,520,648	11,876,666	1,235,728
%	100.0	33.7	7.0	1.4	.5	.2	.3	.7	16.8	4.1	2.7	48.3	16.2	1.8
V. Non-Salary Expense														
	21,664,075	7,257,517	1,483,194	306,521	113,430	47,138	70,829	139,130	3,666,108	847,515	583,652	10,529,503	3,516,405	360,650
%	100.0	33.3	6.8	1.4	.5	.2	.3	.6	16.9	3.9	2.7	48.6	16.2	1.9
VI. Total Direct Expense														
	95,175,501	32,135,901	6,664,146	1,358,940	489,085	196,848	311,769	619,436	16,042,489	3,879,457	2,573,731	46,050,151	15,393,071	1,596,378
%	100.0	33.8	7.0	1.4	.5	.2	.3	.7	16.9	4.1	2.7	48.4	16.2	1.6
INDIRECT EXPENSE														
General Administration	6,551,390	2,194,731	448,530	92,694	34,302	14,255	21,419	42,074	1,108,661	256,295	176,501	3,184,206	1,063,389	109,064
Sponsored Prog. Adm.	3,998,604	1,339,541	273,758	56,575	20,936	8,700	13,073	25,680	676,665	156,428	107,726	1,943,463	649,034	66,566
Student Services	1,560,616	522,810	106,845	22,081	8,171	3,396	5,102	10,022	264,096	61,052	42,045	758,515	253,311	25,980
Library	2,276,598	762,666	155,863	32,211	11,920	4,954	7,443	14,621	385,258	89,062	61,334	1,106,507	369,526	37,899
Operations & Maintenance of Physical Plant & Equipment Expenditures	9,694,322	3,247,621	663,705	137,163	50,758	21,094	31,695	62,258	1,640,524	379,249	261,175	4,711,782	1,573,534	161,385
VII. Total Indirect Expense														
	24,081,530	8,067,369	1,648,701	340,724	126,087	52,399	78,732	154,655	4,075,204	942,086	648,781	11,704,473	3,908,794	400,894
%	100.0	33.3	6.8	1.4	.5	.2	.3	.6	16.9	3.9	2.7	48.6	16.2	1.9
VIII. TOTAL EXPENSE														
	119,257,031	40,203,270	8,312,847	1,699,664	615,172	249,247	390,501	774,091	20,117,693	4,821,543	3,222,512	57,754,624	19,301,865	1,997,272
%	100.0	33.6	7.0	1.4	.5	.2	.3	.6	16.9	4.0	2.7	48.4	16.2	1.7

NOTES: (1) Total includes instruction of Medical students = \$3,536,943; Veterinary Medicine students = \$223,326; Dentistry students = \$183,242; Public Health students = \$121,207; Pharmacy students = \$103,073; Nursing students = \$37,221; and non-Health Science students = \$616,531.

Schedule II: Memo Expense Summary 1985-86
MEDICAL SCHOOL

		I N S T R U C T I O N													
<u>Real Cost and/or Value</u>		<u>Total Expense</u>	<u>Total Instruction</u>	<u>Undergrad M.D.</u>	<u>Allied Health</u>	<u>Undergrad Dentistry</u>	<u>Undergrad Pharmacy</u>	<u>Undergrad Nursing</u>	<u>Undergrad Other</u>	<u>Graduate Med. Fellow & Specialist</u>	<u>Graduate Other</u>	<u>Postgrad and Cont. Ed.</u>	<u>Research</u>	<u>Patient Service</u>	<u>External Professional Service</u>
I.	Non-Health Sciences Course Work (1)	454,866	454,866	11,421	22,560	0	0	0	0	0	420,885	0	0	0	0
II.	Physician Volunteers (2)	15,029,846	15,029,846	6,863,818	879,166	143,312	0	4,134	187,408	5,487,196	92,326	1,372,486	0	0	0
III.	Private Practice Income (3)	<u>10,630,000</u>	<u>4,581,530</u>	<u>967,330</u>	<u>191,340</u>	<u>74,410</u>	<u>21,260</u>	<u>63,780</u>	<u>95,670</u>	<u>2,062,220</u>	<u>701,580</u>	<u>403,940</u>	<u>3,975,620</u>	<u>1,796,470</u>	<u>276,380</u>
V.	Total Real/Replaceable Costs	26,114,712	20,066,242	7,842,569	1,093,066	217,722	21,260	67,914	283,078	7,549,416	1,214,791	1,776,426	3,975,620	1,796,470	276,380

- NOTE: (1) This represents a calculated value/cost of non-Health Sciences course work not funded within the accounts of the Health Sciences. The calculated value is based upon 241 undergraduate credit hours taken @ \$141 and 2115 graduate hours taken @ \$199.
- (2) Effort reports were completed by 1970 clinical (voluntary) faculty who contributed 10,907 hours of work time each week. The annual value for 1985-86 is estimated to be \$15,029,846.
- (3) Estimated expenditures occurred outside University accounts by Medical School departments whose faculty members participate in medical practice governed by the Regent's private consultation policy. Funds are used to underwrite various aspects of Medical School programs including costs of faculty compensation, research activities, equipment, travel, teaching and laboratory supplies, medical practice insurance, office supplies, publications, and communications. These expenditures represent costs for maintenance of quality and quantity of programs.

Schedule III: Comparative Program Costs and Income
1971-72, 1973-74, 1977-78, and 1979-80
MEDICAL SCHOOL

Medical School Program	Medical School Direct Expense							
	1971-72 Medical School		1973-74 Medical School		1977-78 Medical School		1979-80 Medical School	
	Direct Expense	% of Total	Direct Expense	% of Total	Direct Expense	% of Total	Direct Expense	% of Total
Undergrad Medical Education, M.D.	\$ 3,441,805	12.1%	\$ 4,349,064	12.9%	\$ 5,115,364	9.9%	\$ 6,229,077	9.7%
Grad Med Fellow & Specialist	5,132,569	18.1	6,190,426	18.3	9,532,343	18.5	12,207,719	19.1
Grad MS/PhD	1,551,846	5.5	2,584,994	7.7	2,377,744	4.6	2,460,714	3.8
Allied Health Education	1,372,782	4.8	768,221	2.3	1,060,387	2.1	1,145,517	1.8
Postgrad/Continuing Education	766,056	2.7	762,220	2.3	1,444,429	2.8	1,693,293	2.7
Other Education	1,171,601	4.1	761,219	2.2	1,115,386	2.1	1,335,519	2.1
Total Education	\$13,436,659	47.3%	\$15,416,144	45.7%	\$20,645,653	40.0%	\$25,071,839	39.2%
Research	\$12,323,419	43.3%	\$13,887,963	41.2%	\$23,305,512	45.1%	\$29,857,944	46.7%
Patient Service	1,883,995	6.6	3,129,787	9.3	6,517,545	12.6	7,628,663	11.9
External Professional	794,228	2.8	1,311,164	3.8	1,182,405	2.3	1,408,428	2.2
Total Costs (1)	\$28,438,301	100.0%	\$33,745,058	100.0%	\$51,651,115	100.0%	\$63,966,874	100.0%

Income Source	Medical School Income by Source							
	1971-72 Medical School		1973-74 Medical School		1977-78 Medical School		1979-80 Medical School	
	Income	% of Total	Income	% of Total	Income	% of Total	Income	% of Total
A. State of Minnesota								
1. OIXX Maintenance and Operation Funds	NOT AVAILABLE		\$ 6,574,135	19.5%	\$13,503,303	26.1%	\$17,958,664	28.1%
2. Special State Appropriations			2,724,453	8.1	3,789,660	7.3	1,498,357	2.3
Subtotal			\$ 9,298,588	27.6%	\$17,292,963	33.4%	\$19,457,021	30.4%
B. Federal Government								
1. Training Grants and Other Programs			\$ 6,652,991	19.7%	\$ 2,975,962	5.8	4,388,028	6.8%
2. Research Grants			11,299,235	33.5	18,124,579	35.1	22,371,745	35.0
Subtotal			\$17,952,226	53.2%	\$21,100,541	40.9%	\$26,759,773	41.8%
C. Foundations, Gifts, Endowments and Other Sources								
1. Multi-purpose (Teaching, Research, Service or Combination)			\$ 3,204,368	9.5%	\$ 8,305,779	16.1%	\$12,086,535	18.9%
2. Research Projects			3,289,876	9.7	4,951,832	9.6	5,663,545	8.9
Subtotal			\$ 6,494,244	19.2%	\$13,257,611	25.7%	\$17,750,080	27.8%
Total Income (2)			\$33,745,058	100.0%	\$51,651,115	100.0%	\$63,966,874	100.0%

NOTES: (1) Total Costs is calculated from Health Sciences Cost Study Schedule I.
(2) Total Income is calculated from Direct Expense Report XWH168.

Schedule III: Comparative Program Costs and Income
1981-82, 1983-84, and 1985-86
MEDICAL SCHOOL

Medical School Program	Medical School Direct Expense					
	1981-82 Medical School		1983-84 Medical School		1985-86 Medical School	
	Direct Expense	% of Total	Direct Expense	% of Total	Direct Expense	% of Total
Undergrad Medical Education, M.D.	\$ 6,768,403	8.9	\$ 6,754,319	8.2%	\$ 6,664,146	7.0%
Grad Med Fellow & Specialist	14,232,448	18.8	15,444,578	18.8	16,042,489	16.9
Grad MS/PhD	3,119,915	4.1	3,389,559	4.1	3,879,457	4.1
Allied Health Education	1,299,451	1.7	1,190,963	1.4	1,358,940	1.4
Postgrad/Continuing Education	2,030,442	2.7	2,206,409	2.7	2,573,731	2.7
Other Education	1,526,866	2.0	1,593,215	1.9	1,617,138	1.7
Total Education	\$28,977,525	38.2	\$30,579,043	37.1%	\$32,135,901	33.8%
Research	\$35,810,020	47.2	\$37,168,162	45.2%	\$46,050,151	48.4%
Patient Service	9,470,258	12.5	13,111,913	15.9	15,393,071	16.2
External Professional	1,571,110	2.1	1,457,972	1.8	1,596,378	1.6
Total Costs (1)	\$75,828,913	100.0%	\$82,317,090	100.0%	\$95,175,501	100.0%

Income Source	Medical School Income by Source					
	1981-82 Medical School		1983-84 Medical School		1985-86 Medical School	
	Income	% of Total	Income	% of Total	Income	% of Total
A. State of Minnesota						
1. "01XX Maintenance and Operation Fun	\$20,845,972	27.5	\$25,571,179	31.1%	\$29,156,844	30.6%
2. Special State Appropriations	2,955,376	3.9	1,780,257	2.1	2,455,581	2.6
Subtotal	\$23,801,348	31.4%	\$27,351,436	33.2%	\$31,612,425	33.2%
B. Federal Government						
1. Training Grants and Other Programs	\$ 3,622,586	4.8	\$ 3,034,021	3.7%	\$ 3,554,225	3.7%
2. Research Grants	26,439,525	34.9	22,308,580	27.1	27,335,280	28.7
Subtotal	\$30,062,111	39.7%	\$25,342,601	30.8%	\$30,889,505	32.5%
C. Foundations, Gifts, Endowments and Oth Sources						
1. Multi-purpose (Teaching, Research, Service or Combination)	\$15,699,780	20.7	\$20,084,857	24.4%	\$20,070,959	21.1%
2. Research Projects	6,265,674	8.2	9,538,196	11.6	12,602,612	13.2
Subtotal	\$21,965,454	28.9%	\$29,623,053	36.0%	\$32,673,571	34.3%
Total Income (2)	\$75,828,913	100.0%	\$82,317,090	100.0%	\$95,175,501	100.0%

NOTES: (1) Total Costs is calculated from Health Sciences Cost Study Schedule I.

(2) Total Income is calculated from Direct Expense Report XWH168. In 1985-86, \$17,297,486 of Affiliate Hospital funds and \$9,510,100 of Indirect Costs is subtracted from the General Ledger Expenditures of \$121,983,095.

Schedule I: Health Sciences Cost Study Expense Summary 1985-86
COLLEGE OF VETERINARY MEDICINE

	Total Expense	Total Instruction	I N S T R U C T I O N						Research	Patient Service	External Professional Services
			Undergrad D.V.M.	Undergrad Other (1)	Graduate MS/Ph.D	Graduate Other (2)	Continuing Education				
<u>DIRECT EXPENSE</u>											
<u>I. Salaries</u>											
Administrative Classes	334,454	236,044	135,978	13,072	29,196	3,872	53,926	67,632	10,239	20,539	
Professorial Classes	4,453,409	2,493,710	1,351,960	88,492	618,937	87,740	346,581	1,276,500	550,787	132,412	
Student Service Classes	1,018,689	745,704	261,237	9,740	414,730	5,734	54,263	187,055	81,209	4,721	
Student Fellow Classes	22,576	5,418	0	0	2,709	2,709	0	16,706	0	452	
Other Academic Classes	100,011	38,762	6,562	0	27,016	5,079	105	59,379	560	1,310	
Civil Service Classes	3,995,554	1,079,416	623,593	107,702	178,907	15,723	153,491	1,226,484	1,678,253	11,401	
Subtotal Salaries	9,924,693	4,599,054	2,379,330	219,006	1,271,495	120,857	608,366	2,833,756	2,321,048	170,835	
%	100.0	46.3	24.0	2.2	12.8	1.2	6.1	28.6	23.4	1.7	
<u>II. Employee Benefits</u>	1,621,252	702,259	386,558	38,192	155,868	20,516	101,125	479,982	408,777	30,234	
<u>III. Stipends</u>	53,396	53,396	0	0	53,396	0	0	0	0	0	
<u>IV. Total Salary Expense</u>	11,599,341	5,354,709	2,765,888	257,198	1,480,759	141,373	709,491	3,313,738	2,729,825	201,069	
%	100.0	46.1	23.8	2.2	12.8	1.2	6.1	28.6	23.5	1.8	
<u>V. Non-Salary Expense</u>	3,341,814	1,548,580	801,161	73,743	428,134	40,695	204,847	954,174	781,537	57,523	
%	100.0	46.3	24.0	2.2	12.8	1.2	6.1	28.6	23.4	1.7	
<u>VI. Total Direct Expense</u>	14,941,155	6,903,289	3,567,049	330,941	1,908,893	182,068	914,338	4,267,912	3,511,362	258,592	
%	100.0	46.2	23.9	2.2	12.8	1.2	6.1	28.6	23.5	1.7	
<u>INDIRECT EXPENSE</u>											
General & Administration	953,465	441,831	228,582	21,040	122,152	11,611	58,446	272,239	222,983	16,412	
Academic Support	374,564	173,571	89,798	8,265	47,987	4,561	22,960	106,948	87,598	6,447	
Student Services	177,958	82,465	42,663	3,927	22,799	2,167	10,909	50,812	41,618	3,063	
Library	237,570	110,089	56,955	5,242	30,436	2,893	14,563	67,832	55,560	4,089	
Operation & Maintenance of Physical Plant & Equipment Expenditures	1,944,181	900,924	466,095	42,902	249,077	23,675	119,175	555,114	454,678	33,465	
<u>VII. Total Indirect Expense</u>	3,687,738	1,708,880	884,093	81,376	472,451	44,907	226,053	1,052,945	862,437	63,476	
%	100.0	46.3	24.0	2.2	12.8	1.2	6.1	28.6	23.4	1.7	
<u>VIII. TOTAL EXPENSE</u>	18,628,893	8,612,169	4,451,142	412,317	2,381,344	226,975	1,140,391	5,320,857	4,373,799	322,068	
%	100.0	46.2	23.9	2.2	12.8	1.2	6.1	28.6	23.5	1.7	

NOTES: (1) Total includes instruction of Pharmacy students = \$90,100; Public Health students = \$12,013; and non-Health Science students = \$310,204.
(2) Total includes instruction of Medical students = \$11,946; and non-Health Sciences students = \$215,029.

Schedule II: Memo Expense Summary 1985-86
COLLEGE OF VETERINARY MEDICINE

		<u>Total Expense</u>	<u>Total Instruction</u>	<u>I N S T R U C T I O N</u>				<u>Research</u>	<u>Service</u>	<u>Ext. Prof. Service</u>
				<u>Undergrad D.V.M.</u>	<u>Graduate MS/Ph.D.</u>	<u>Graduate Other</u>	<u>Continuing Education</u>			
<u>Real Cost and/or Value</u>										
I.	Non-Health Sciences Course Work (1)	238,334	238,334	22,419	215,915	0	0	0	0	0
II.	Clinical Faculty (2)	<u>206,008</u>	<u>206,008</u>	<u>206,008</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
III.	Total Real/Replaceable Costs	444,342	444,342	228,427	215,915	0	0	0	0	0

NOTES: (1) This represents a calculated value/cost of non-Health Sciences course work not funded within the accounts of the Health Sciences. The calculated value is based upon 159 undergraduate credit hours taken @ \$141 and 1085 graduate hours taken @ \$199.
(2) Includes mainly contributions of Clinical Faculty (practicing Veterinarians) who contributed 1920 hours of externship teaching; and contributions from unpaid faculty and graduate students.

Schedule III: Comparative Program Costs and Income
1985-86
COLLEGE OF VETERINARY MEDICINE

College of Veterinary Medicine Direct Expense

<u>College of Veterinary Medicine</u>	1985-86	
	<u>Direct Expense</u>	<u>% of Total</u>
D.V.M. Education	\$ 3,567,049	23.9%
Undergraduate Education	330,941	2.2
Graduate Education	2,090,961	14.0
Continuing Education	<u>914,338</u>	<u>6.1</u>
Total Education	\$ 6,903,289	46.2%
Research	\$ 4,267,912	28.6%
Service	3,511,362	23.5
External Professional Service	<u>258,592</u>	<u>1.7</u>
Total Costs (1)	<u>\$14,941,155</u>	<u>100.0%</u>

College of Veterinary Medicine Income by Source

<u>Income Source</u>	1985-86	
	<u>Income</u>	<u>% of Total</u>
A. State of Minnesota		
1. "OIXX" Maintenance and Operation Funds	\$ 7,809,425	52.3%
2. Special State Appropriations	<u>2,525,350</u>	<u>16.9</u>
Sub Total	\$10,334,775	69.2%
B. Federal Government		
1. Training Grants and Other Programs	\$ 335,635	2.2%
2. Research Grants	<u>607,945</u>	<u>4.1%</u>
Sub Total	\$ 943,580	6.3%
C. Foundations, Gifts, Endowments and Other Sources		
1. Multi-purpose (Teaching, Research, Service or Combination)	\$ 2,580,756	17.3%
2. Research Projects	<u>1,082,044</u>	<u>7.2%</u>
Sub Total	\$ 3,662,800	24.5%
Total Income (2)	<u>\$14,941,155</u>	<u>100.0%</u>

NOTES: (1) Total Costs is calculated from Health Sciences Cost Study Schedule I.
(2) Total Income is calculated from Direct Expense Report XWH168. In 1985-86, \$1,381,441 is added to totals for Agriculture Extension and Experiment Station funds (primarily state specials for research and federal research funds) and \$288,169 of Indirect Costs is subtracted from the General Ledger Expenditures of \$13,847,883.

Schedule I: Health Sciences Cost Study Expense Summary 1985-86
UMD SCHOOL OF MEDICINE

	I N S T R U C T I O N										
	Total Expense	Total Instruction	Undergrad M.D.	Allied Health	Undergrad Other	Grad Med Fell & Spec	Graduate Other	Postgrad & Cont. Educ.	Research	Patient Services	Ext. Prof. Services
DIRECT EXPENSE											
I. Salaries											
Administrative Classes	290,752	243,801	202,301	0	1,304	26,892	6,274	7,030	30,927	4,800	11,224
Professorial Classes	1,698,352	882,522	606,546	8,268	101,007	34,130	99,956	32,615	710,242	8,353	97,235
Student Service Classes	101,435	11,642	805	0	10,837	0	0	0	89,793	0	0
Student Fellow Classes	42,353	38,627	3,725	0	0	34,902	0	0	0	3,726	0
Other Academic Classes	22,516	6,860	6,860	0	0	0	0	0	15,656	0	0
Civil Service Classes	944,089	357,733	283,906	0	48,369	0	164	25,294	580,970	0	5,386
Subtotal Salaries	3,099,497	1,541,185	1,104,143	8,268	161,517	95,924	106,394	64,939	1,427,588	16,879	113,845
%	100.0	49.7	35.6	0.3	5.2	3.1	3.4	2.1	46.1	0.5	3.7
II. Employee Benefits	653,186	329,479	243,005	1,827	33,299	13,485	23,512	14,351	295,641	2,907	25,159
III. Stipends	60,211	60,211	60,211	0	0	0	0	0	0	0	0
IV. Total Salary Expense	3,812,894	1,930,875	1,407,359	10,095	194,816	109,409	129,906	79,290	1,723,229	19,786	139,004
%	100.0	50.7	36.9	0.3	5.1	2.9	3.4	2.1	45.2	0.5	3.6
V. Non-Salary Expense	1,030,121	512,214	366,963	2,748	53,680	31,880	35,360	21,583	474,460	5,610	37,837
%	100.0	49.7	35.6	0.3	5.2	3.1	3.4	2.1	46.1	0.5	3.7
VI. Total Direct Expense	4,843,015	2,443,089	1,774,322	12,843	248,496	141,289	165,266	100,873	2,197,689	25,396	176,841
%	100.0	50.4	36.6	0.3	5.1	2.9	3.4	2.1	45.4	0.5	3.7
INDIRECT EXPENSE											
General & Administration	716,203	356,123	255,135	1,910	37,322	22,165	24,585	15,006	329,874	3,900	26,306
Academic Support	321,234	159,730	114,434	857	16,740	9,942	11,027	6,730	147,956	1,749	11,799
Student Services	165,354	82,220	58,905	441	8,617	5,117	5,676	3,464	76,160	900	6,074
Library	123,371	61,345	43,949	329	6,429	3,818	4,235	2,585	56,823	672	4,531
Operation & Maintenance of Physical Plant & Equipment Expenditures	418,623	208,156	149,127	1,117	21,815	12,956	14,370	8,771	192,811	2,280	15,376
VII. Total Indirect Expense	1,744,785	867,574	621,550	4,654	90,923	53,998	59,893	36,556	803,624	9,501	64,086
%	100.0	49.7	35.6	0.3	5.2	3.1	3.4	2.1	46.1	0.5	3.7
VIII. TOTAL EXPENSE	6,587,800	3,310,663	2,395,872	17,497	339,419	195,287	225,159	137,429	3,001,313	34,897	240,927
%	100.0	50.4	36.4	0.3	5.2	3.0	3.4	2.1	45.6	0.5	3.5

Schedule III: Comparative Program Costs and Income
1973-74, 1977-78, and 1979-80
UMD SCHOOL OF MEDICINE

UMD School of Medicine Programs	UMD School of Medicine Direct Expense					
	1973-74		1977-78		1979-80	
	Direct Expense	% of Total	Direct Expense	% of Total	Direct Expense	% of Total
Undergraduate M.D.	\$ 829,265	61.5%	\$ 988,897	41.7%	\$1,115,665	37.7%
Allied Health	5,047	.4	28,246	1.2	15,780	.5
Undergraduate Other	139,861	10.4	136,618	5.8	167,028	5.7
Graduate Medical Fellow	1,299	.1	39,478	1.7	178,847	6.0
Postgraduate/Continuing Education	6,899	.5	72,444	3.1	57,346	1.9
Other Graduate Education	14,324	1.1	29,347	1.2	75,911	2.6
Total Education	\$ 996,695	74.0%	\$1,295,030	54.7%	\$1,610,577	54.4%
Research	\$ 262,512	19.5%	\$ 997,592	42.1%	\$1,221,437	41.3%
Patient Service	2,450	.2	17,566	.7	31,628	1.1
External Professional Service	85,350	6.3	59,516	2.5	95,796	3.2
Total Costs (1)	\$1,347,007	100.0%	\$2,369,704	100.0%	\$2,959,438	100.0%

Income Source	UMD School of Medicine Income by Source					
	1973-74		1977-78		1979-80	
	Income	% of Total	Income	% of Total	Income	% of Total
A. State of Minnesota						
1. "01XX" Maintenance and Operation Funds	\$ 0	0%	\$ 19,641	.8%	\$2,110,502	71.3%
2. Special State Appropriations	689,832	51.2	1,757,136	74.2	115,793	3.9
Sub Total	\$ 689,832	51.2%	\$1,776,777	75.0%	\$2,226,295	75.2%
B. Federal Government						
1. Training Grants and Other Programs	\$ 351,525	26.1%	\$ 170,470	7.2%	\$ 228,276	7.7%
2. Research Grants	147,647	11.0	160,551	6.8	227,968	7.7
Sub Total	\$ 499,172	37.1%	\$ 331,021	14.0%	\$ 456,244	15.4%
C. Foundations, Gifts, Endowments and Other Sources						
1. Multi-purpose (Teaching, Research, Service or Combination)	\$ 69,436	5.1%	\$ 140,887	5.9%	\$ 169,737	5.7%
2. Research Projects	88,567	6.6	121,019	5.1	107,162	3.7
Sub Total	\$ 158,003	11.7%	\$ 261,906	11.0%	\$ 276,899	9.4%
Total Income (2)	\$1,347,007	100.0%	\$2,369,704	100.0%	\$2,959,438	100.0%

NOTE: (1) Total Costs is calculated from Health Sciences Cost Study Schedule I.
(2) Total Income is calculated from Direct Expense Report XWH168.

Schedule III: Comparative Program Costs and Income
1981-82, 1983-84, and 1985-86
UMD SCHOOL OF MEDICINE

UMD School of Medicine Programs	1981-82		1983-84		1985-86	
	Direct Expense	% of Total	Direct Expense	% of Total	Direct Expense	% of Total
Undergraduate M.D.	\$1,196,283	33.2%	\$1,526,643	37.5%	\$1,774,322	36.6%
Allied Health	69,542	2.0	21,954	.5	12,843	0.3
Undergraduate Other	137,412	3.8	156,047	3.8	248,496	5.1
Graduate Medical Fellow	51,038	1.4	158,165	3.9	141,289	2.9
Postgraduate/Continuing Education	73,169	2.0	113,567	2.8	100,873	2.1
Other Graduate Education	71,478	2.0	87,870	2.2	165,266	3.4
Total Education	\$1,598,922	44.4%	\$2,064,246	50.7%	\$2,443,089	50.4%
Research	\$1,850,358	51.4%	\$1,870,652	46.0%	\$2,197,689	45.4%
Patient Service	38,844	1.1	17,794	.4	25,396	0.5
External Professional Service	113,442	3.1	116,378	2.9	176,841	3.7
Total Costs (1)	\$3,601,566	100.0%	\$4,069,070	100.0%	\$4,843,015	100.0%

Income Source	1981-82		1983-84		1985-86	
	Income	% of Total	Income	% of Total	Income	% of Total
A. State of Minnesota						
1. "01XX" Maintenance and Operation Funds	\$2,554,160	70.9%	\$2,966,823	72.9%	\$3,256,196	67.2%
2. Special State Appropriations	115,266	3.2	9,214	.2	15,659	0.3
Sub Total	\$2,669,426	74.1%	\$2,976,037	73.1%	\$3,271,855	67.6%
B. Federal Government						
1. Training Grants and Other Programs	\$ 270,912	7.5%	\$ 246,680	6.1%	\$ 305,345	6.3%
2. Research Grants	498,796	13.9	573,748	14.1	964,386	19.9
Sub Total	\$ 769,708	21.4%	\$ 820,428	20.2%	\$1,269,731	26.2%
C. Foundations, Gifts, Endowments and Other Sources						
1. Multi-purpose (Teaching, Research, Service or Combination)	\$ 120,785	3.4%	\$ 102,690	2.5%	\$ 153,864	3.2%
2. Research Projects	41,647	1.1	169,915	4.2	147,565	3.0
Sub Total	\$ 162,432	4.5%	\$ 272,605	6.7%	\$ 301,429	6.2%
Total Income (2)	\$3,601,566	100.0%	\$4,069,070	100.0%	\$4,843,015	100.0%

NOTES: (1) Total Costs is calculated from Health Sciences Cost Study Schedule I.

(2) Total Income is calculate from Direct Expense Report XWH168. In 1985-86, \$336,662 of Indirect Costs is subtracted from the General Ledger Expenditures of \$5,179,677.

Schedule I: Health Sciences Cost Study Expense Summary 1985-86
UNIVERSITY OF MINNESOTA HOSPITAL & CLINIC

	Total Applicable Expense	Undergrad M.D.	Allied Health	Undergrad Dentistry	Undergrad Pharmacy	Undergrad Nursing	Undergrad Other	Graduate Medical Fellows & Specialists	Graduate Dental Fellows & Specialists	Graduate Other	Postgrad. and Cont. Educ.	School of Public Health Hosp. Admin.
<u>I. Medical School Payroll</u>												
Administrative Classes	70,938	13,084	14,208	401	0	0	2,409	28,780	0	2,761	9,295	0
Professorial Classes	1,042,975	175,991	187,017	5,417	1,060	11,280	11,180	494,100	0	87,209	69,721	0
Student Service Classes	15,682	0	15,682	0	0	0	0	0	0	0	0	0
Student Fellow Classes	3,609,607	380,814	10,820	5,693	225	12,509	10,049	2,982,122	0	715	206,660	0
Other Academic Classes	76,058	4,807	1,921	0	0	0	0	41,930	0	27,120	280	0
Civil Service Classes	205,976	19,143	72,415	555	278	278	754	98,624	0	4,924	9,005	0
Subtotal Salaries	5,021,236	593,839	302,063	12,066	1,563	24,067	24,392	3,645,556	0	122,729	294,961	0
<u>II. School of Dentistry Payroll</u>												
Student Service Classes	9,781	0	0	9,781	0	0	0	0	0	0	0	0
Student Fellow Classes	44,828	0	0	860	0	0	0	0	7,022	36,946	0	0
Civil Service Classes	359	0	0	359	0	0	0	0	0	0	0	0
Subtotal Salaries	54,968	0	0	11,000	0	0	0	0	7,022	36,946	0	0
<u>III. School of Pharmacy Payroll</u>												
Administrative Classes	63,340	0	0	0	11,658	0	0	0	0	47,245	4,437	0
Professorial Classes	47,884	0	0	0	16,967	0	749	0	0	22,556	7,612	0
Other Academic Classes	1,511	0	0	0	891	0	223	0	0	223	174	0
Subtotal Salaries	112,735	0	0	0	29,516	0	972	0	0	70,024	12,223	0
<u>IV. Total Items I thru III</u>												
Total Personnel	5,188,939	593,839	302,063	23,066	31,079	24,067	25,364	3,645,556	7,022	229,699	307,184	0
Employee Benefits	256,754	30,365	15,446	617	80	1,231	1,247	186,410	0	6,276	15,082	0
Non-salary Expense	119,028	13,622	6,929	529	713	552	582	83,625	161	5,269	7,046	0
Indirect Costs - 9.8%	545,343	62,507	31,795	2,373	3,123	2,533	2,665	383,728	704	23,642	32,273	0
<u>V. Totals</u>	<u>6,110,064</u>	<u>700,333</u>	<u>356,233</u>	<u>26,585</u>	<u>34,995</u>	<u>28,383</u>	<u>29,858</u>	<u>4,299,319</u>	<u>7,887</u>	<u>264,886</u>	<u>361,585</u>	<u>0</u>

Schedule I: Health Sciences Cost Study Expense Summary 1985-86
UNIVERSITY OF MINNESOTA HOSPITAL & CLINIC

	Total Applicable Expense	Undergrad M.D.	Allied Health	Undergrad Dentistry	Undergrad Pharmacy	Undergrad Nursing	Undergrad Other	Graduate Medical Fellows & Specialists	Graduate Dental Fellows & Specialists	Graduate Other (1)	Postgrad. and Cont. Educ. (2)	School of Public Health Hosp. Admin.
<u>VI. Hospital Cost Centers</u>												
Nursing Services	887,387	42,506	271,807	1,508	621	116,071	3,993	228,591	177	222,113	0	0
Biomedical Engineering	16,708	0	0	0	0	0	8,354	0	0	8,354	0	0
Respiratory Care	68,134	278	0	0	0	0	45,471	20,694	0	575	0	1,116
Pharmacy	259,017	5,957	21,116	0	151,573	0	11,432	29,492	0	38,136	0	1,311
Operating Rooms	212,725	19,847	3,656	2,413	46	12,571	10,394	157,758	3,221	1,503	1,199	117
Q/A, Pat. Monitoring. Infection Center	30,645	2,026	6,120	0	0	3,533	711	10,722	0	6,958	0	575
Nutrition	160,628	0	0	0	0	0	160,628	0	0	0	0	0
Social Service	65,660	2,914	6,054	0	0	449	5,176	26,154	1,707	23,095	0	111
Outpatient Department	111,135	22,001	10,442	5,321	0	8,306	3,597	55,878	4,354	1,236	0	0
Therapeutic Radiology	86,952	5,888	0	0	0	0	29,500	51,564	0	0	0	0
Medical Records	91,732	2,765	15,858	226	225	992	4,195	61,968	3,631	1,105	0	767
Hospital Laboratories	252,441	8,641	131,608	0	63	1,927	19,233	79,820	0	4,929	6,008	212
Administration	30,899	0	517	0	0	2,474	0	3,417	0	0	0	24,491
Physical Medicine & Rehabilitation	77,933	1,196	68,199	0	0	1,404	4,387	771	0	1,976	0	0
Radiology	533,930	0	0	0	0	0	434,471	99,459	0	0	0	0
Subtotal Cost Centers	2,885,926	114,019	535,377	9,468	152,528	147,727	741,542	826,288	13,090	309,980	7,207	28,700
Indirect Costs - 9.8%	282,821	11,174	52,467	928	14,948	14,477	72,671	80,976	1,283	30,378	706	2,813
Total Cost Centers	3,168,747	125,193	587,844	10,396	167,476	162,204	814,213	907,264	14,373	340,358	7,913	31,513
<u>VII. Total Program Contributions</u>	9,278,811	825,526	944,077	36,981	202,471	190,587	844,071	5,206,583	22,260	605,244	369,498	31,513

NOTES: (1) Total includes instruction of \$482,443 in Medicine; \$80,387 in Pharmacy; and \$42,414 in Dentistry.

(2) Total includes instruction of \$355,466 in Medicine; and \$14,032 in Pharmacy.

Schedule I: Health Sciences Cost Study Expense Summary 1985-86
HENNEPIN COUNTY MEDICAL CENTER

	Total Applicable Expense	Undergrad M.D.	Allied Health	Undergrad Dentistry	Undergrad Pharmacy	Undergrad Nursing	Undergrad Other	Graduate Medical Fellows & Specialists	Graduate Dental Fellows & Specialists	Graduate Other	Postgrad. and Cont. Educ.	School of Public Health Hosp. Admin.
<u>I. Medical School Payroll</u>												
Professorial Classes	163,684	31,664	9,259	0	0	7,430	1,874	80,776	0	17,557	15,124	0
Student Fellow Classes	618,827	86,371	711	711	0	4,309	0	428,256	0	18,754	79,715	0
Subtotal Salaries	782,511	118,035	9,970	711	0	11,739	1,874	509,032	0	36,311	94,839	0
<u>II. College of Pharmacy Payroll</u>												
Professorial Classes	31,784	0	0	0	15,418	0	0	0	0	0	16,366	0
Subtotal Salaries	31,784	0	0	0	15,418	0	0	0	0	0	16,366	0
<u>III. School of Dentistry Payroll</u>												
Professorial Classes	15,092	0	0	13,205	0	0	0	0	0	1,887	0	0
Student Service Classes	20,868	0	0	19,946	0	0	0	0	0	922	0	0
Student Fellow Classes	41,603	0	0	6,170	0	0	0	0	6,688	28,745	0	0
Subtotal Salaries	77,563	0	0	39,321	0	0	0	0	6,688	31,554	0	0
<u>IV. Hennepin County Payroll</u>												
Professorial Classes	5,652,573	1,350,731	63,048	18,271	9,337	64,367	74,807	3,285,683	0	241,112	545,217	0
Other Academic Classes	14,907	2,354	0	0	0	0	0	12,553	0	0	0	0
Subtotal Salaries	5,667,480	1,353,085	63,048	18,271	9,337	64,367	74,807	3,298,236	0	241,112	545,217	0
<u>V. Total Items I through IV</u>												
Total Personnel	6,559,338	1,471,120	73,018	58,303	24,755	76,106	76,681	3,807,268	6,688	308,977	656,422	0
Employee Benefits	912,479	211,216	10,154	5,540	2,479	10,476	11,352	530,324	468	40,912	89,558	0
Stipends	106,388	0	0	0	0	0	0	106,388	0	0	0	0
Non-Salary Expense	1,602,871	359,490	17,843	14,247	6,049	18,598	18,738	930,363	1,634	75,503	160,406	0
Indirect Costs - 24%	2,203,459	490,038	24,244	18,742	7,988	25,243	25,625	1,289,842	2,110	102,094	217,533	0
<u>VI. Totals</u>	<u>11,384,535</u>	<u>2,531,864</u>	<u>125,259</u>	<u>96,832</u>	<u>41,271</u>	<u>130,423</u>	<u>132,396</u>	<u>6,664,185</u>	<u>10,900</u>	<u>527,486</u>	<u>1,123,919</u>	<u>0</u>

Schedule I: Health Sciences Cost Study Expense Summary 1985-86
HENNEPIN COUNTY MEDICAL CENTER

	Total Applicable Expense	Undergrad M.D.	Allied Health	Undergrad Dentistry	Undergrad Pharmacy	Undergrad Nursing	Undergrad Other	Graduate Medical Fellows & Specialists	Graduate Dental Fellows & Specialists	Graduate Other	Postgrad. and Cont. Educ.	School of Public Health Hosp. Admin.
<u>VII. Hospital Cost Centers</u>												
Nursing Administration	44,964	13,426	0	0	0	4,783	0	23,594	0	438	0	2,723
Operating Room	16,161	11,911	0	220	0	1,393	0	1,848	0	789	0	0
Inpatient Nursing Services	1,382,389	310,386	6,459	758	40,090	64,541	0	927,516	0	18,635	0	14,004
Medical Staff Support	649,338	97,039	72,997	195	2,767	3,098	0	370,874	0	98,297	0	4,071
Gastrointestinal Lab	5,445	0	0	0	0	0	0	5,445	0	0	0	0
Pathology	78,529	20,374	342	0	0	427	0	49,662	0	7,724	0	0
Physical Medicine	20,703	426	17,697	0	0	645	0	1,722	0	0	0	213
Anesthesiology	14,535	0	0	0	0	13,505	0	515	0	515	0	0
EKG	8,324	0	0	0	0	0	0	8,324	0	0	0	0
Heart Cath Lab	32,973	3,738	832	0	0	0	0	28,403	0	0	0	0
Echo Lab	8,630	0	0	0	0	0	0	8,630	0	0	0	0
Radiology	123,154	0	0	0	0	0	0	58,719	0	64,435	0	0
Nuclear Medicine	35,486	12,017	0	0	0	0	0	15,457	0	8,012	0	0
Clinical Laboratories	184,121	0	150,923	0	0	1,174	0	31,594	0	158	0	272
Respiratory Therapy	16,940	0	0	0	471	42	0	16,427	0	0	0	0
EEG	3,480	0	0	0	0	0	0	3,480	0	0	0	0
Clinical Service Management	23,446	5,268	0	0	0	2,612	0	15,501	0	0	0	65
Medical Records	207,456	3,176	0	0	0	794	0	202,830	0	437	0	219
Social Service	126,940	28,694	0	0	0	2,984	0	71,523	0	23,739	0	0
Safety & Security	55,234	198	396	198	198	262	0	53,388	0	198	0	396
Personnel	1,080	341	0	0	400	0	0	0	0	0	0	339
Employee Health Service	10,232	2,259	0	0	348	23	0	7,254	0	0	0	348
Emergency Room	265,360	117,914	0	0	6,666	5,346	0	135,025	0	409	0	0
Poison Information Center	15,276	2,842	0	0	8,526	829	0	2,842	0	0	0	237
EMS	42	0	0	0	0	0	0	42	0	0	0	0
Library	26,330	4,709	25	0	211	202	0	20,890	0	248	0	45
Patient Food Services	26,988	4,022	0	0	0	248	0	18,300	0	4,418	0	0
Shared Cafeteria	2,079	0	0	0	0	0	0	0	0	0	0	2,079
Pharmacy	199,702	19,200	0	0	97,788	4,854	0	77,335	0	0	0	525

Schedule I: Health Sciences Cost Study Expense Summary 1985-86
HENNEPIN COUNTY MEDICAL CENTER

	Total Applicable Expense	Undergrad M.D.	Allied Health	Undergrad Dentistry	Undergrad Pharmacy	Undergrad Nursing	Undergrad Other	Graduate Medical Fellows & Specialists	Graduate Dental Fellows & Specialists	Graduate Other	Postgrad. and Cont. Educ.	School of Public Health Hosp. Admin.
<u>VII. Hospital Cost Centers</u>												
Materials Management	7,858	0	0	0	0	0	0	7,858	0	0	0	0
Family Practice	278,012	5,248	10,459	0	0	2,394	0	256,746	0	3,165	0	0
Extended Care	14,026	0	0	0	0	0	0	14,026	0	0	0	0
Crisis Intervention Center	21,169	0	0	0	0	1,055	0	12,555	0	7,559	0	0
Outpatient Department	411,554	44,862	0	53,925	0	1,181	0	218,982	0	89,088	0	3,516
Administration	39,640	3,947	17	0	0	730	0	19,273	0	979	0	14,694
Admissions	85	0	0	0	0	0	0	30	0	0	0	55
Fiscal Services	15,255	775	0	0	155	0	0	14,325	0	0	0	0
Subtotal Cost Centers	4,372,936	712,772	260,147	55,296	157,620	113,122	0	2,700,935	0	329,243	0	43,801
Indirects Costs - 24%	1,049,503	171,065	62,435	13,271	37,829	27,149	0	648,224	0	79,018	0	10,512
Total Costs Centers	5,422,439	883,837	322,582	68,567	195,449	140,271	0	3,349,159	0	408,261	0	54,313
<u>VIII. Total Program Contributions</u>	16,806,974	3,415,701	447,841	165,399	236,720	270,694	132,396	10,013,344	10,900	935,747	1,123,919	54,313

NOTES: (1) Total includes instruction of \$894,414 in Medicine; and \$41,333 in Dentistry.
(2) Total includes instruction of \$1,102,481 in Medicine; and \$21,438 in Pharmacy.

Schedule I: Health Sciences Cost Study Expense Summary 1985-86
ST. PAUL RAMSEY MEDICAL CENTER

	Total Applicable Expense	Undergrad M.D.	Allied Health	Undergrad Dentistry	Undergrad Pharmacy	Undergrad Nursing	Undergrad Other	Graduate Medical Fellows & Specialists	Graduate Dental Fellows & Specialists	Graduate Other	Postgrad. and Cont. Educ.	School of Public Health Hosp. Admin.
<u>I. Medical School Payroll</u>												
Professorial Classes	139,590	23,552	0	0	0	0	7,613	99,784	0	1,167	7,474	0
Research Classes	5,793	1,448	0	0	0	0	0	1,448	0	2,897	0	0
Student Fellow Classes	1,232,121	197,290	726	0	54	1,851	0	1,009,826	0	0	22,374	0
Subtotal Salaries	1,377,504	222,290	726	0	54	1,851	7,613	1,111,058	0	4,064	29,848	0
<u>II. College of Pharmacy Payroll</u>												
Professorial Classes	158,950	0	0	0	82,815	0	0	0	0	0	76,135	0
Civil Service Classes	22,018	0	0	0	21,740	0	0	0	0	278	0	0
Subtotal Salaries	180,968	0	0	0	104,555	0	0	0	0	278	76,135	0
<u>III. St. Paul-Ramsey Payroll</u>												
Professorial Classes	4,165,804	1,045,533	244,781	0	34,777	65,612	37,651	2,422,863	0	26,419	288,168	0
Subtotal Salaries	4,165,804	1,045,533	244,781	0	34,777	65,612	37,651	2,422,863	0	26,419	288,168	0
<u>IV. Total Items I through III</u>												
Total Personnel	5,724,276	1,267,823	245,507	0	139,386	67,463	45,264	3,533,921	0	30,761	394,151	0
Employee Benefits	759,951	176,097	36,780	0	14,284	10,002	6,308	459,730	0	4,339	52,411	0
Stipends	24,751	0	0	0	0	0	0	24,751	0	0	0	0
Non-Salary Expense	1,509,705	334,372	64,749	0	36,761	17,793	11,938	932,027	0	8,113	103,952	0
Indirect Costs - 29.5%	2,365,512	524,596	102,376	0	56,177	28,101	18,735	1,460,377	0	12,748	162,402	0
V. Totals	10,384,195	2,302,888	449,412	0	246,608	123,359	82,245	6,410,806	0	55,961	712,916	0

Schedule I: Health Sciences Cost Study Expense Summary 1985-86
ST. PAUL RAMSEY MEDICAL CENTER

	Total Applicable Expense	Undergrad M.D.	Allied Health	Undergrad Dentistry	Undergrad Pharmacy	Undergrad Nursing	Undergrad Other	Graduate Medical Fellows & Specialists	Graduate Dental Fellows & Specialists	Graduate Other (1)	Postgrad. and Cont. Educ. (2)	School of Public Health Hosp. Admin.
<u>VI. Hospital Cost Centers</u>												
Administration	41,318	3,127	588	477	700	0	8,048	15,509	0	5,549	0	7,320
Ambulatory Care	75,138	37,793	51	0	0	0	0	34,388	2,855	0	0	51
Laboratory	43,884	0	0	0	21,942	0	0	21,942	0	0	0	0
Library	61,010	8,082	1,616	0	16,274	0	1,617	25,338	0	0	0	8,083
Medical Records	62,115	0	0	0	0	0	0	44,058	0	18,057	0	0
Nursing Service	687,874	177,024	7,082	5,370	82,108	0	21,098	303,875	2,855	85,442	0	3,020
Opth. Med. Serv.	965	0	0	0	0	0	0	965	0	0	0	0
Pharmacy	82,000	0	0	0	82,000	0	0	0	0	0	0	0
Radiology	33,917	0	0	0	0	0	17,779	16,138	0	0	0	0
Social Service	2,158	0	0	0	0	0	777	0	0	1,381	0	0
Operating room	55,892	26,898	0	0	0	0	0	0	0	28,994	0	0
Subtotal Cost Centers	1,146,271	252,924	9,337	5,847	203,024	0	49,319	462,213	5,710	139,423	0	18,474
Indirect Costs - 29.5%	338,150	74,613	2,754	1,725	59,892	0	14,549	136,353	1,684	41,130	0	5,450
Total Cost Centers	1,484,421	327,537	12,091	7,572	262,916	0	63,868	598,566	7,394	180,553	0	23,924
<u>VII. Total Program Contributions</u>	11,868,616	2,630,425	461,333	7,572	509,524	123,359	146,113	7,009,372	7,394	236,514	712,916	23,924

NOTES: (1) Total includes instruction of Medical Students = \$236,129 and Pharmacy students = \$385.
(2) Total includes instruction of Medical Students = \$607,697 and Pharmacy students = \$105,219.

Schedule I: Health Sciences Cost Study Expense Summary 1985-86
 VETERANS ADMINISTRATION MEDICAL CENTER

	Total Applicable Expense	Undergrad M.D.	Allied Health	Undergrad Dentistry	Undergrad Pharmacy	Undergrad Nursing	Undergrad Other	Graduate Medical Fellows & Specialists	Graduate Dental Fellows & Specialists	Graduate Other	Postgrad. and Cont. Educ.	School of Public Health Hosp. Admin.
<u>I. Medical School Payroll</u>												
Professorial Classes	5,047	1,147	0	0	0	0	0	3,212	0	688	0	0
Student Fellow Classes	2,762,357	373,485	4,930	0	225	3,117	15,293	2,347,451	0	0	17,856	0
Subtotal Salaries	2,767,404	374,632	4,930	0	225	3,117	15,293	2,350,663	0	688	17,856	0
<u>II. Veterans Administration Payroll</u>												
Professorial Classes	3,873,641	926,353	391,882	8,424	4,065	24,074	7,879	2,012,620	0	193,917	304,427	0
Research Classes	9,739	0	0	0	0	0	991	3,678	0	3,584	1,486	0
Subtotal Salaries	3,883,380	926,353	391,882	8,424	4,065	24,074	8,870	2,016,298	0	197,501	305,913	0
<u>III. Total Items I through II</u>												
Total Personnel	6,650,784	1,300,985	396,812	8,424	4,290	27,191	24,163	4,366,961	0	198,189	323,769	0
Employee Benefits	583,429	139,078	58,784	1,264	610	3,612	1,336	303,227	0	29,625	45,893	0
Non-Salary Expenses	68,548	13,409	4,090	87	44	280	249	45,009	0	2,043	3,337	0
Indirect Costs - 35.8%	2,614,390	520,343	164,568	3,499	1,770	11,128	9,218	1,688,041	0	82,289	133,534	0
IV. TOTALS	9,917,151	1,973,815	624,254	13,274	6,714	42,211	34,966	6,403,238	0	312,146	506,533	0

Schedule I: Health Sciences Cost Study Expense Summary 1985-86
VETERANS ADMINISTRATION MEDICAL CENTER

	Total Applicable Expense	Undergrad M.D.	Allied Health	Undergrad Dentistry	Undergrad Pharmacy	Undergrad Nursing	Undergrad Other	Graduate Medical Fellows & Specialists	Graduate Dental Fellows & Specialists	Graduate Other	Postgrad. and Cont. Educ.	School of Public Health Hosp. Admin.
<u>VI. Hospital Cost Centers</u>												
Medicine	290,900	34,700	0	0	0	0	0	256,200	0	0	0	0
Neurology	15,500	2,300	0	0	0	0	0	13,200	0	0	0	0
Surgery & OR	116,800	12,300	0	0	0	0	0	104,500	0	0	0	0
Psychiatry	44,100	8,200	0	0	0	0	0	35,900	0	0	0	0
Nuclear Medicine	8,700	1,900	0	0	0	0	0	6,800	0	0	0	0
Social Work	179,400	0	0	0	0	0	0	0	0	179,400	0	0
Radiology	175,500	22,700	0	0	0	0	0	152,800	0	0	0	0
Laboratories	13,600	1,300	0	0	0	0	0	12,300	0	0	0	0
Pharmacy	7,300	0	0	0	0	0	0	0	0	7,300	0	0
Education	51,700	6,200	0	0	0	0	0	43,500	0	2,000	0	0
Psychology	19,200	0	0	0	0	0	0	0	0	0	19,200	0
Aphasia	40,800	0	0	0	0	0	0	0	0	40,800	0	0
Nursing	239,000	28,500	0	0	0	0	0	210,500	0	0	0	0
Rehab Medicine	11,100	1,600	0	0	0	0	0	9,500	0	0	0	0
Dietetics	14,800	4,000	0	0	0	0	0	10,700	100	0	0	0
Dental	11,500	0	0	0	0	0	0	0	11,500	0	0	0
Administration	60,200	7,200	0	0	0	0	0	44,700	300	7,200	600	200
Subtotal Cost Centers	1,300,100	130,900	0	0	0	0	0	900,600	11,900	236,700	19,800	200
Indirect Costs - 35.8%	465,436	46,862	0	0	0	0	0	322,415	4,260	84,739	7,088	72
Total Cost Centers	1,765,536	177,762	0	0	0	0	0	1,223,015	16,160	321,439	26,888	272
<u>VI. Total Program Contributions</u>	11,682,687	2,151,577	624,254	13,274	6,714	42,211	34,966	7,626,253	16,160	633,585	533,421	272

Schedule I: Health Sciences Cost Study Expense Summary 1985-86
OTHER PUBLIC & PRIVATE HOSPITALS

	Total Applicable Expense	Undergrad M.D.	Allied Health	Undergrad Dentistry	Undergrad Pharmacy	Undergrad Nursing	Undergrad Other	Graduate Medical Fellows & Specialists	Graduate Dental Fellows & Specialists	Graduate Other (1)	Postgrad. and Cont. Educ. (2)	School of Public Health Hosp. Admin.
<u>I. Medical School Payroll</u>												
Administrative Classes	362,568	68,172	1,125	0	0	4,560	0	233,107	0	4,703	50,901	0
Student Service Classes	19,674	0	0	0	0	0	0	19,674	0	0	0	0
Student Fellow Classes	1,864,847	214,302	355	355	225	6,492	0	1,482,760	0	884	159,474	0
Civil Service Classes	80,011	7,723	0	244	122	122	244	63,147	0	1,698	6,711	0
Subtotal Salaries	2,327,100	290,197	1,480	599	347	11,174	244	1,798,688	0	7,285	217,086	0
<u>II. School of Dentistry Payroll</u>												
Administrative Classes	9,586	0	0	4,204	0	0	0	0	3,364	1,345	673	0
Professorial Classes	3,971	0	0	1,164	0	0	0	0	1,278	1,189	340	0
Student Fellow Classes	54,936	0	0	0	0	0	0	0	14,876	40,060	0	0
Civil Service Classes	815	0	0	340	0	0	0	0	294	160	21	0
Subtotal Salaries	69,308	0	0	5,708	0	0	0	0	19,812	42,754	1,034	0
<u>III. College of Pharmacy Payroll</u>												
Professorial Classes	9,164	0	0	0	8,400	0	0	0	0	0	764	0
Subtotal Salaries	9,164	0	0	0	8,400	0	0	0	0	0	764	0
<u>IV. Total Items I through III</u>												
Total Personnel	2,405,572	290,197	1,480	6,307	8,747	11,174	244	1,798,688	19,812	50,039	218,884	0
Employee Benefits	135,722	16,373	84	356	494	630	14	101,481	1,118	2,823	12,349	0
Stipends	550,166	0	0	0	0	0	0	550,166	0	0	0	0
Non-salary Expense	1,220,805	147,272	751	3,201	4,439	5,671	124	912,817	10,054	25,394	111,082	0
Indirect Costs - 20%	862,452	90,768	463	1,973	2,736	3,495	76	672,630	6,197	15,651	68,463	0
V. Totals	5,174,717	544,610	2,778	11,837	16,416	20,970	458	4,035,782	37,181	93,907	410,778	0

NOTES: (1) Total includes instruction of \$40,191 in Medicine; and \$53,716 in Dentistry.

(2) Total includes instruction of \$408,519 in Medicine; \$1,299 in Dentistry; and \$960 in Pharmacy.

UNIVERSITY OF MINNESOTA HEALTH SCIENCES
COMPARATIVE COST PER STUDENT
1971-72, 1973-74, 1977-78, and 1979-80

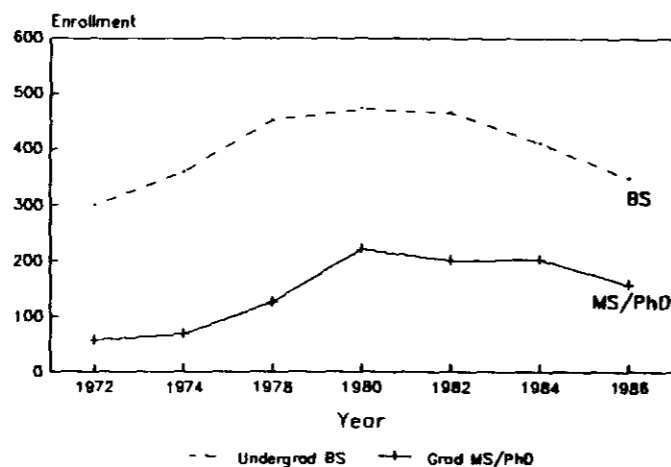
Health Sciences Education Programs	1971-72			1973-74			1977-78			1979-80		
	Total Program Costs	Enrollment	Cost Per Enrolled Student	Total Program Costs	Enrollment	Cost Per Enrolled Student	Total Program Costs	Enrollment	Cost Per Enrolled Student	Total Program Costs	Enrollment	Cost Per Enrolled Student
<u>School of Nursing</u>												
Undergrad. B.S.	1,496,661	300	4,989	1,630,193	359	4,541	2,086,393	452	4,616	2,532,081	471	5,376
Graduate M.S.	437,211	57	7,670	490,753	67	7,325	901,531	125	7,212	1,460,551	219	6,669
Continuing Education	60,080	1,200		41,826	4,116		102,670	3,017		112,261	3,658	
Other Education	455			14,528			94,938			126,672		
<u>College of Pharmacy</u>												
Undergrad. B.S.	1,001,969	320	3,131	1,193,878	346	3,451	1,766,655	364	4,853	2,083,830	341	6,111
Doctor of Pharmacy	62,168	7	8,881	152,242	15	10,149	437,687	37	11,829	597,638	47	12,716
Graduate M.S., Ph.D.	219,450	45	4,877	310,302	54	5,746	550,922	71	7,759	843,337	80	10,542
Post Doctoral	13,499	7	1,928	49,389	9	5,488	14,457	6	2,410	200,953	10	20,095
Postgrad/Continuing Education	23,550	473		57,822	1,471		99,736	3,115		141,173	1,600	
Other Education	58,015			23,880			73,189			34,305		
<u>School of Public Health</u>												
Graduate Masters	3,141,492	276	9,126	2,258,930	317	18,989	3,356,207	422	22,862	3,245,393	452	29,575
Graduate Ph.D.	384,564	46	8,360	279,377	40	6,984	295,957	54	5,481	422,030	53	7,963
Continuing Education	160,100	539		333,242	1,073		664,307	1,679		656,418	2,063	
Other Education	245,907			256,767			379,071			738,225		
<u>School of Dentistry</u>												
Undergrad. D.D.S.	2,786,530	458	6,084	5,033,559	482	10,443	7,387,032	589	12,542	8,300,903	584	14,214
Dental Hygiene	264,290	124	2,131	359,495	165	2,179	1,655,581	357	4,637	1,535,977	270	5,689
Dental Assisting	146,693	57	2,574	172,289	72	2,393	311,646	50	6,233	321,777	53	6,071
Graduate M.S./Ph.D. & Other	1,078,135	62	17,389	1,469,956	76	19,342	2,061,103	52	39,637	2,823,956	57	49,543
Postgrad/Continuing Education	102,164	705		111,413	1,271		369,385	1,535		495,711	2,386	
Other Education	54,842			186,925			120,641			263,695		
<u>Medical School</u>												
Undergrad. M.D.	7,621,270	838	9,095	12,916,333	960	13,455	16,415,993	1,048	15,664	17,840,231	1,057	16,878
Grad. Med. Fellow & Specialist	15,898,408	720	22,081	22,046,186	880	25,052	35,630,434	1,096	32,510	42,721,286	1,104	38,697
Graduate M.S., Ph.D.	1,950,418	162	12,040	3,253,476	217	14,993	4,022,121	259	15,529	3,896,030	246	15,838
Allied Health	2,743,528	295	9,300	2,759,137	222	12,429	3,896,682	294	13,254	3,845,717	312	12,326
Postgrad/Continuing Education	1,494,703	2,631		1,893,526	2,532		3,133,943	7,218		3,756,300	7,816	
Other Education	1,056,414			1,323,197			1,080,125			1,116,032		
<u>Veterinary Medicine</u>												
Undergrad DVM												
Grad M.S./Ph.D.												
Continuing Education												
Other Education												
<u>UMD School of Medicine</u>												
Undergrad M.D.				933,481	48	19,448	1,329,837	84	15,831	1,521,515	96	15,849
Allied Health				5,741			38,128			21,294		
Undergrad Other												
Grad. Med. Fellow and Specialist				1,473			53,478			246,121		
Postgrad/Continuing Education				7,765			97,974			79,403		
Other Education				174,820			223,612			334,476		

UNIVERSITY OF MINNESOTA HEALTH SCIENCES
COMPARATIVE COST PER STUDENT
1981-82, 1983-84, and 1985-86

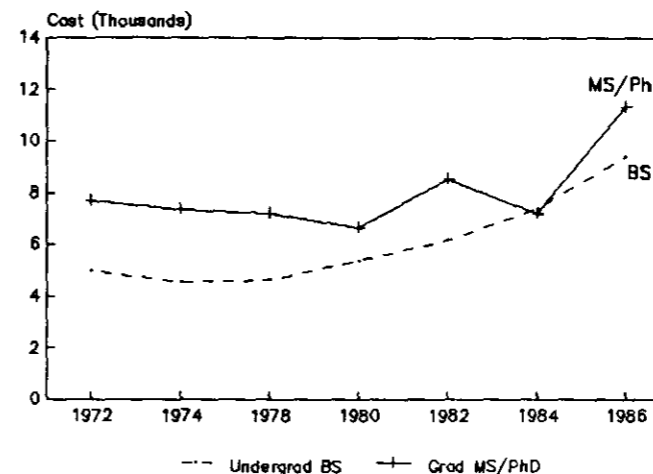
Health Sciences Education Programs	1981-82			1983-84			1985-86		
	Total Program Costs	Enrollment	Cost Per Enrolled Student	Total Program Costs	Enrollment	Cost Per Enrolled Student	Total Program Costs	Enrollment	Cost Per Enrolled Student
<u>School of Nursing</u>									
Undergrad. B.S.	2,872,836	466	6,165	3,029,293	411	7,371	3,246,779	346	9,384
Graduate M.S.	1,694,963	199	8,517	1,442,033	201	7,174	1,768,497	156	11,337
Continuing Education	108,491	3,765		92,792	3,217		88,586	1,751	
Other Education	88,719			14,118			50,810		
<u>College of Pharmacy</u>									
Undergrad. B.S.	1,734,233	241	7,196	1,688,626	206	8,197	1,538,048	226	6,806
Doctor of Pharmacy	1,068,356	67	15,946	1,913,183	88	21,741	1,473,671	93	15,846
Graduate M.S., Ph.D.	1,852,434	82	22,591	1,661,578	85	19,548	2,036,712	82	24,838
Post Doctoral	93,920	14	6,709	272,675	18	15,149	231,265	35	
Postgrad/Continuing Education	128,621	1,973		228,479	1,989		311,822	2,483	
Other Education	92,551			155,909			126,027		
<u>School of Public Health</u>									
Graduate Masters	3,481,021	410	30,444	2,839,202	317	31,316	4,646,455	388	27,244
Graduate Ph.D.	451,669	38	11,886	478,010	53	9,019	474,320	476	
Continuing Education	823,298	2,148		508,961	1,308		1,435,582		
Other Education	1,037,552			900,882					
<u>School of Dentistry</u>									
Undergrad. D.D.S.	8,856,402	571	15,510	9,931,156	526	18,881	11,393,710	423	26,935
Dental Hygiene	1,094,659	137	7,990	697,794	71	9,828	737,107	49	15,043
Dental Assisting	224,195	11	20,381						
Graduate M.S./Ph.D. & Other	3,482,578	59	59,027	3,988,078	50	79,762	5,158,272	69	74,758
Postgrad/Continuing Education	493,922	3,014		491,574	3,070		779,912	5,156	
Other Education	80,706			273,145			275,374		
<u>Medical School</u>									
Undergrad. M.D.	22,768,660	1,060	21,480	21,624,145	1,078	20,060	25,729,062	1,030	24,980
Grad. Med. Fellow & Specialist	49,507,019	1,106	44,762	57,798,564	1,116	51,791	61,558,443	1,116	55,160
Graduate M.S., Ph.D.	4,935,703	283	17,441	5,231,431	263	19,891	7,351,084	261	28,165
Allied Health	4,500,428	248	18,147	4,031,697	212	19,017	5,273,589	211	24,993
Postgrad/Continuing Education	5,097,098	6,700		6,690,308	7,600		8,006,522	6,958	
Other Education	1,690,949			2,541,497			2,831,704		
<u>Veterinary Medicine</u>									
Undergrad DVM							4,679,643	310	15,096
Grad M.S./Ph.D.							3,074,085	94	32,703
Continuing Education							1,140,391	1,823	
Other Education							525,233		
<u>UMD School of Medicine</u>									
Undergrad M.D.	1,484,797	96	15,467	1,920,728	96	20,008	2,395,872	96	24,957
Allied Health	87,802			27,792			17,497		
Undergrad Other							339,419		
Grad. Med. Fellow and Specialist	63,821			201,196			195,287		
Postgrad/Continuing Education	92,344			143,767			225,159		
Other Education	262,758			309,209			137,429		

Health Sciences Cost Allocation Study School of Nursing

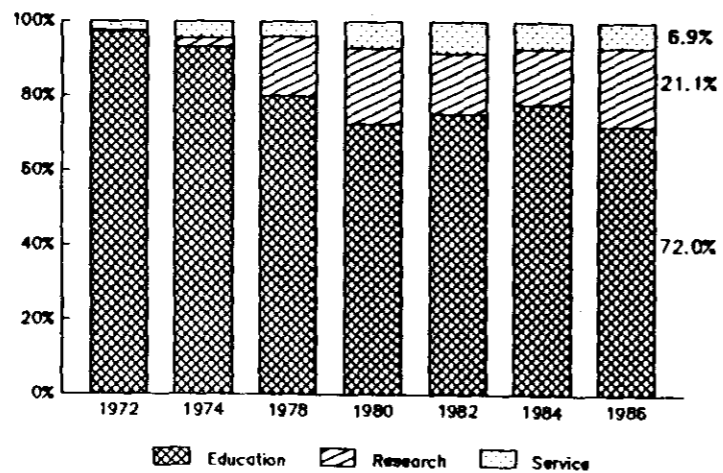
School of Nursing Enrollment



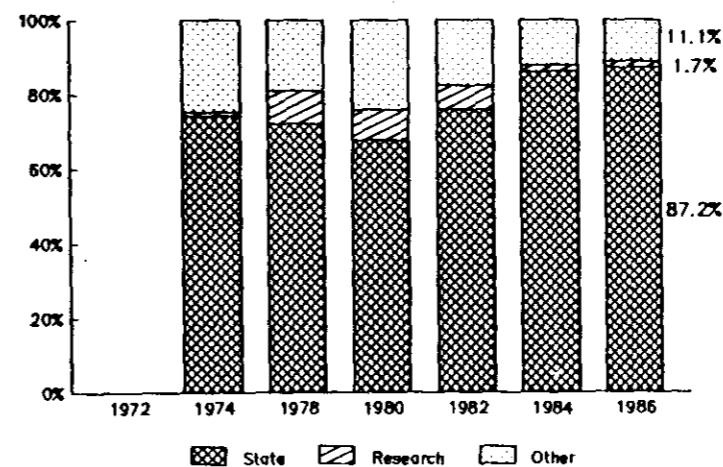
School of Nursing Costs Per Enrolled Student



School of Nursing Use of Income

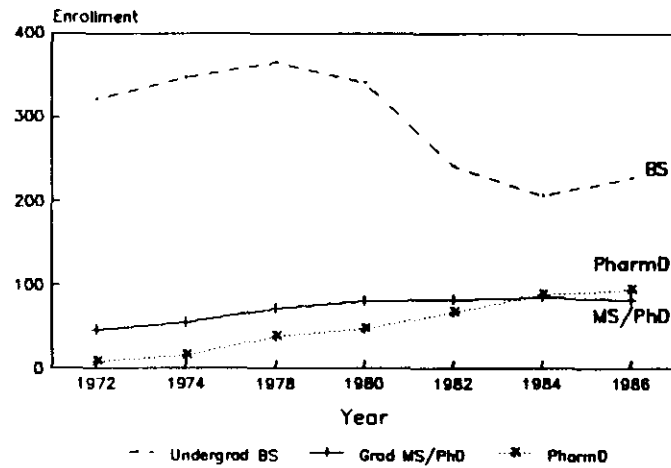


School of Nursing Source of Income

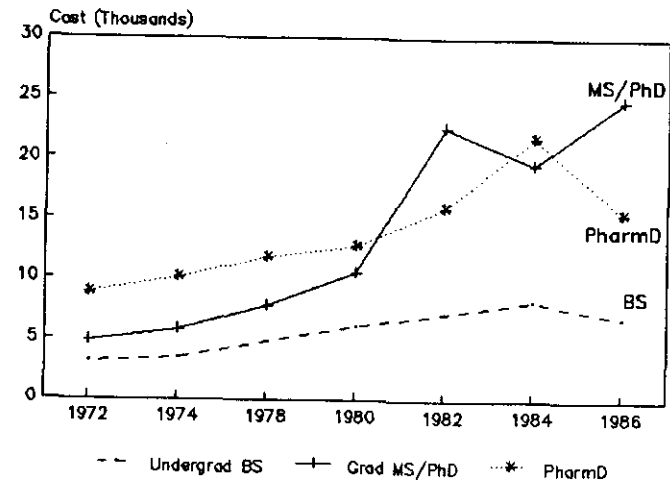


Health Sciences Cost Allocation Study College of Pharmacy

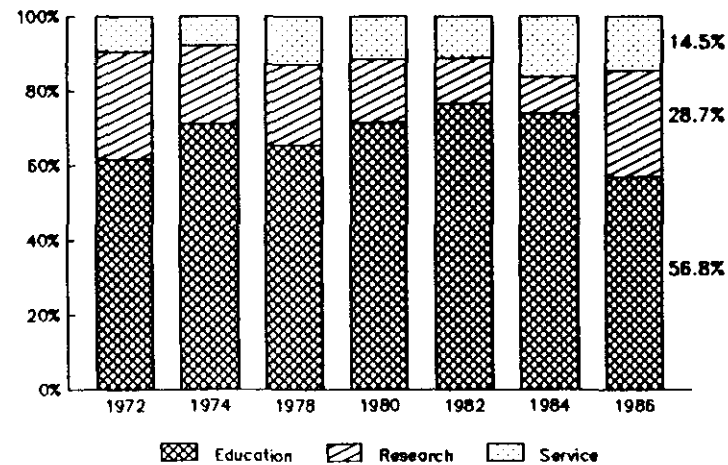
College of Pharmacy Enrollment



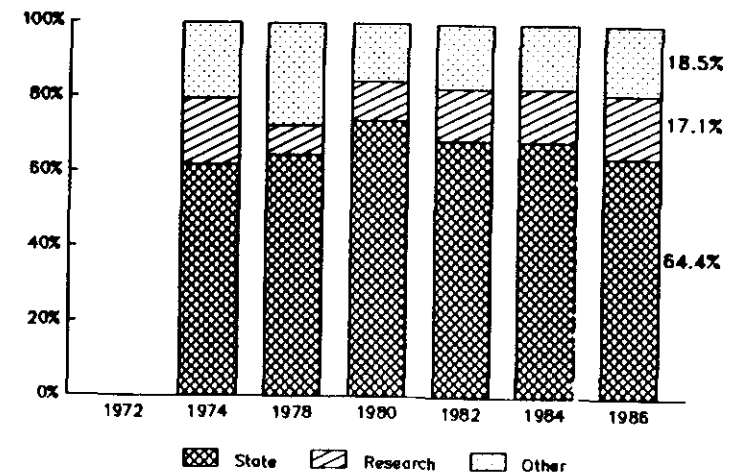
College of Pharmacy Costs Per Enrolled Student



College of Pharmacy Use of Income

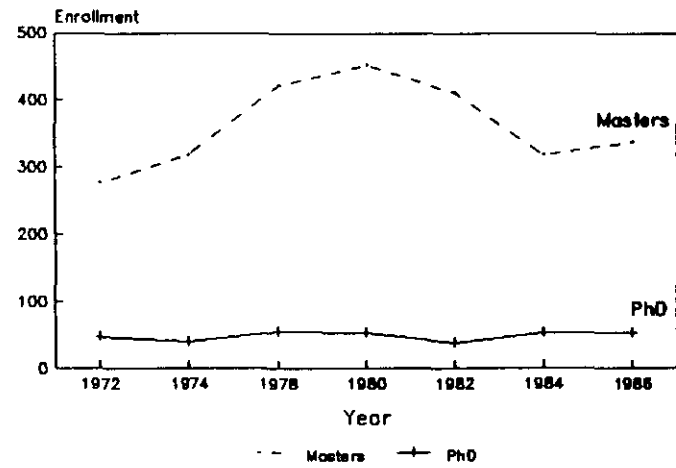


College of Pharmacy Source of Income

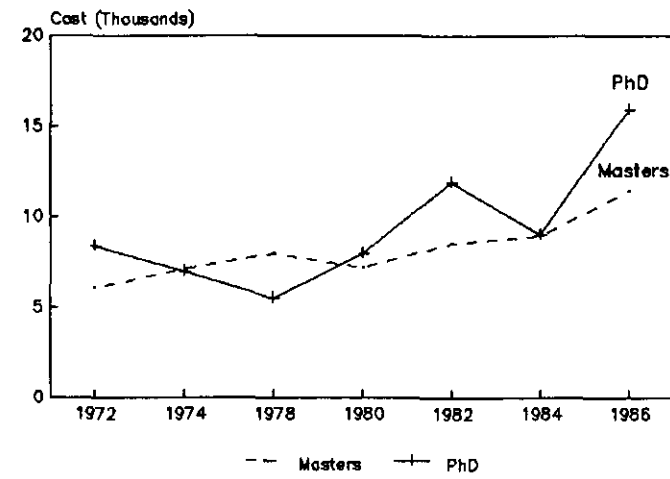


Health Sciences Cost Allocation Study School of Public Health

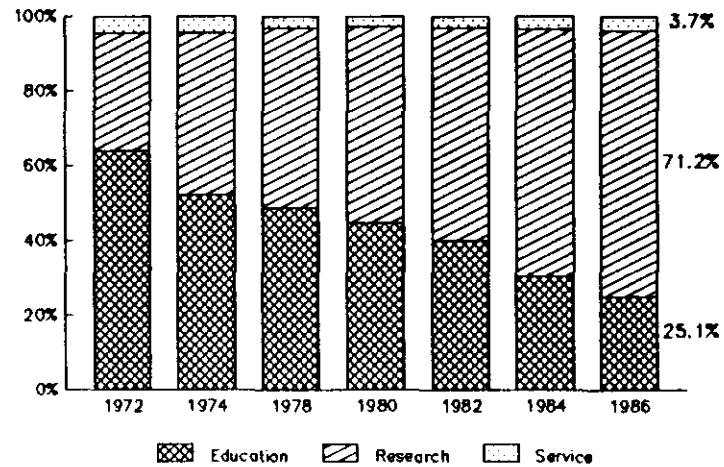
School of Public Health Enrollment



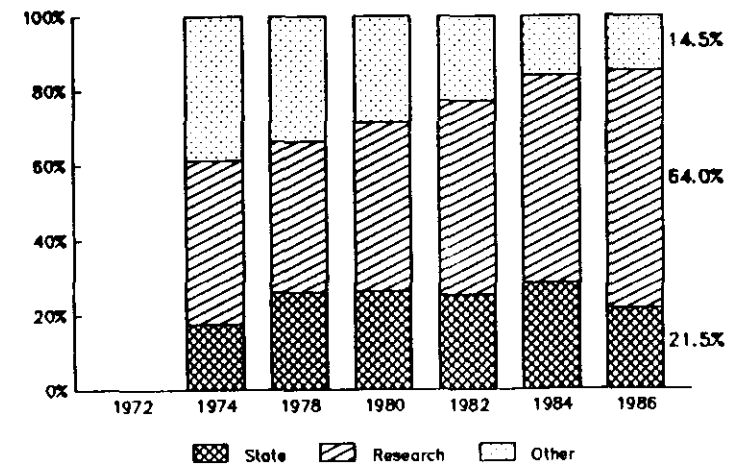
School of Public Health Costs Per Enrolled Student



School of Public Health Use of Income

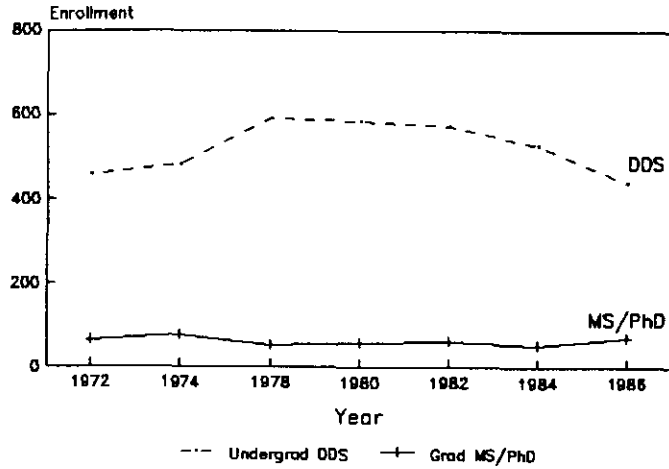


School of Public Health Source of Income

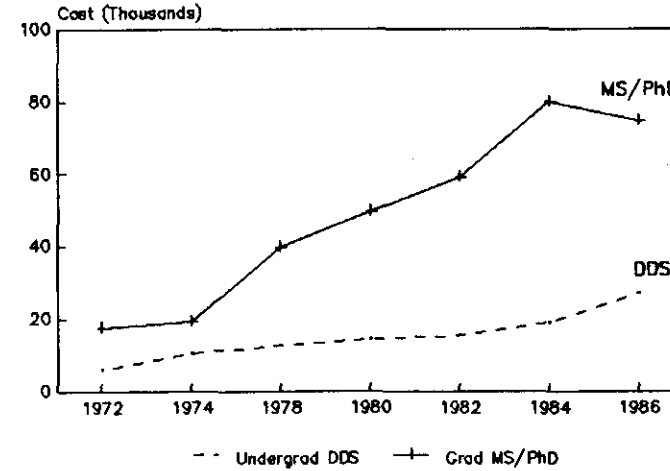


Health Sciences Cost Allocation Study School of Dentistry

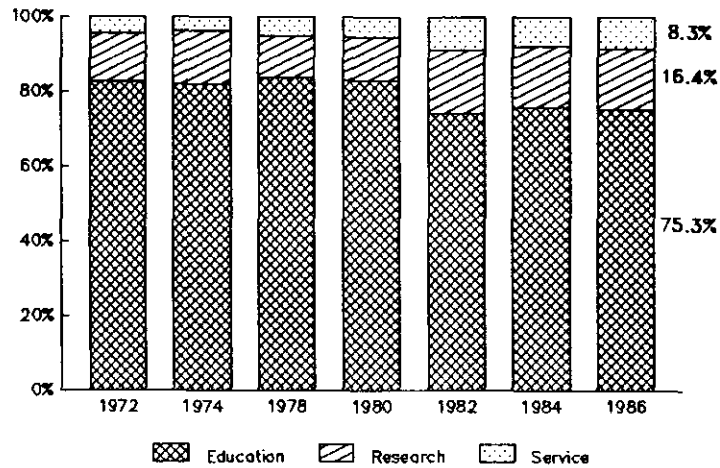
School of Dentistry Enrollment



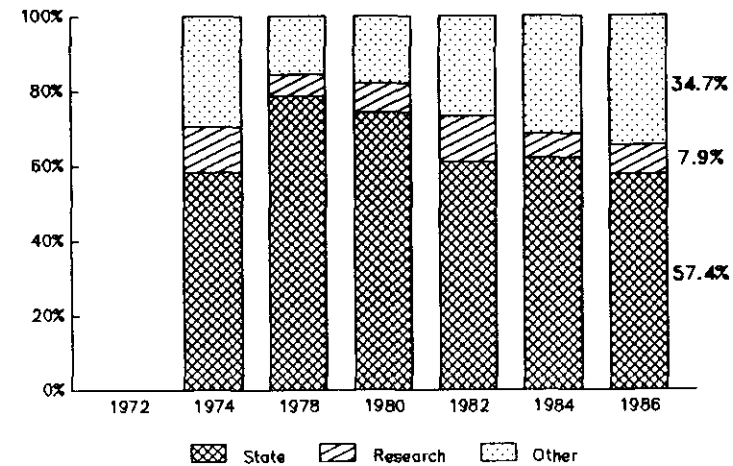
School of Dentistry Costs Per Enrolled Student



School of Dentistry Use of Income

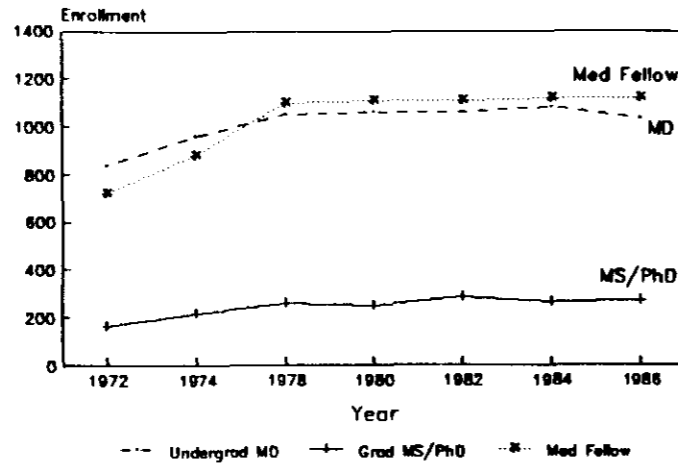


School of Dentistry Source of Income

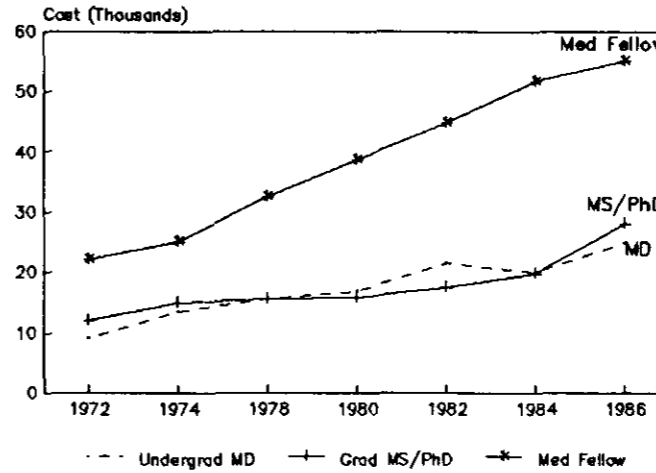


Health Sciences Cost Allocation Study Medical School

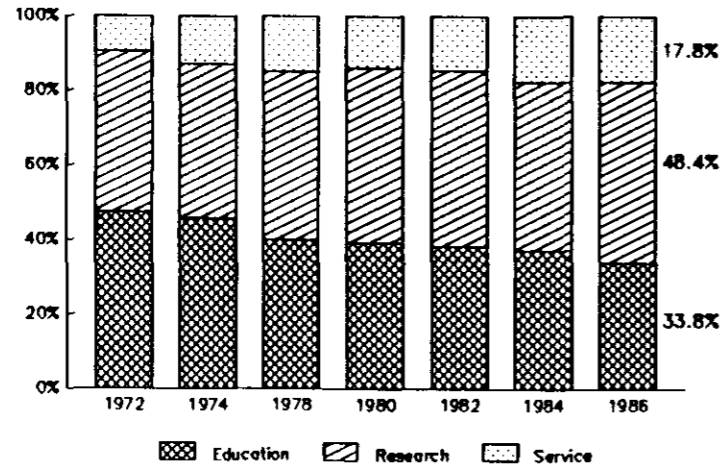
Medical School Enrollment



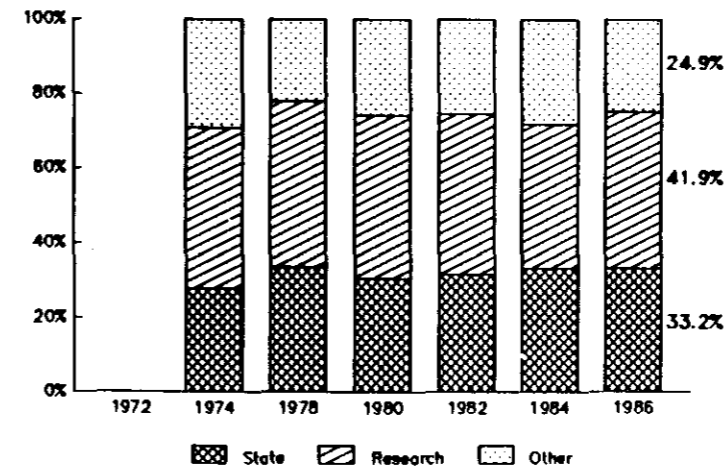
Medical School Costs Per Enrolled Student



Medical School Use of Income

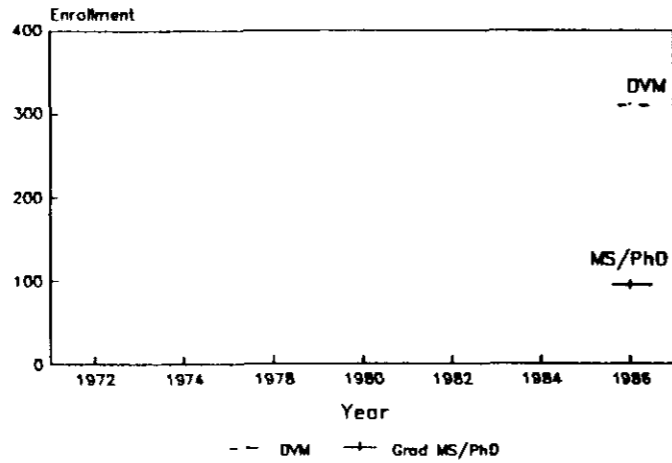


Medical School Source of Income

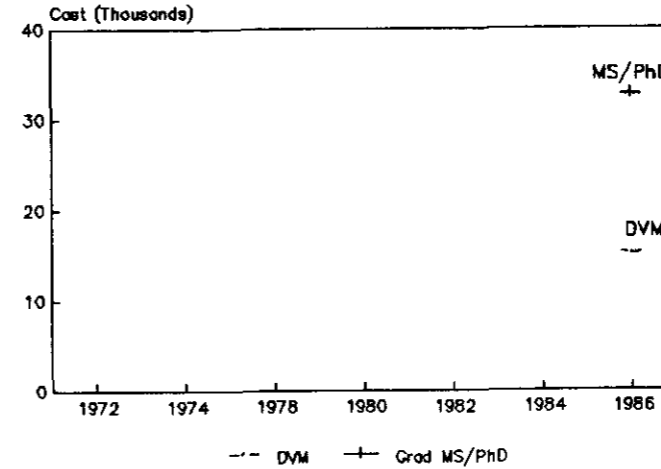


Health Sciences Cost Allocation Study College of Veterinary Medicine

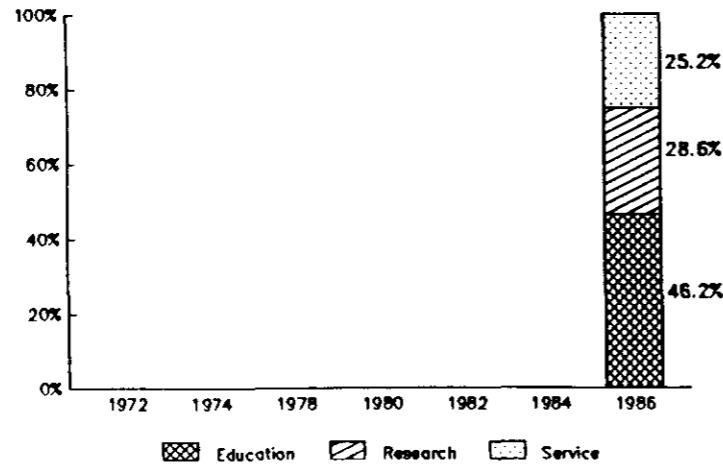
College of Veterinary Medicine
Enrollment



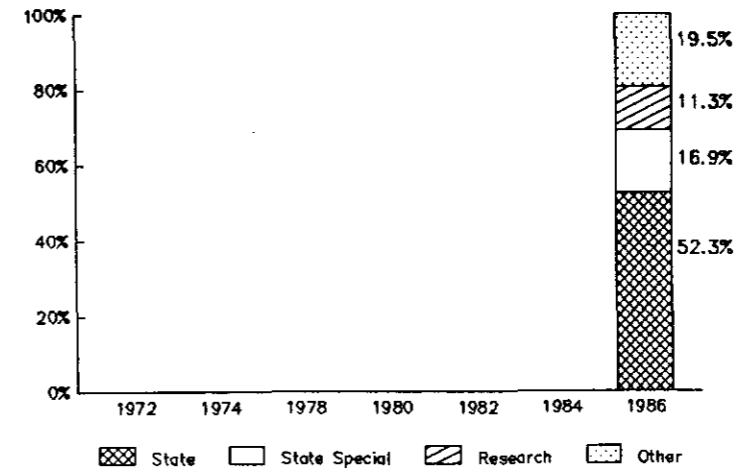
College of Veterinary Medicine
Costs Per Enrolled Student



College of Veterinary Medicine
Use of Income

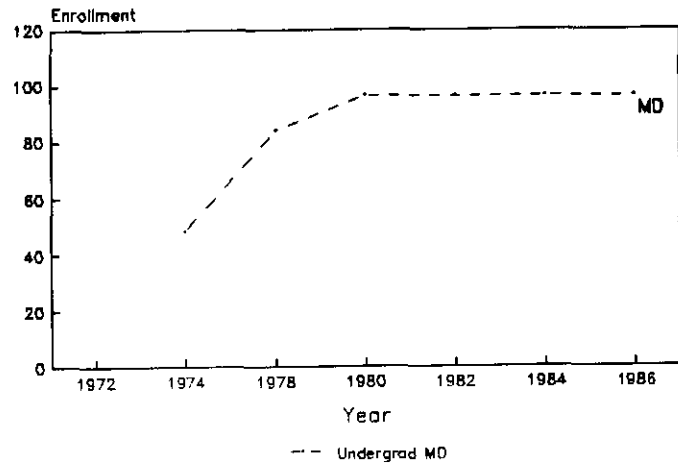


College of Veterinary Medicine
Source of Income

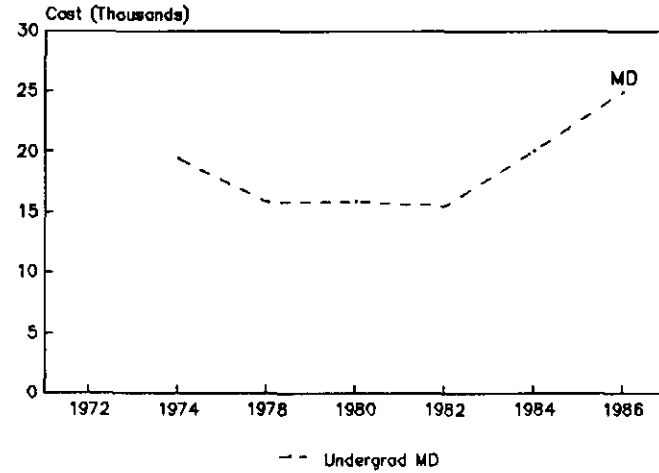


Health Sciences Cost Allocation Study UMD School of Medicine

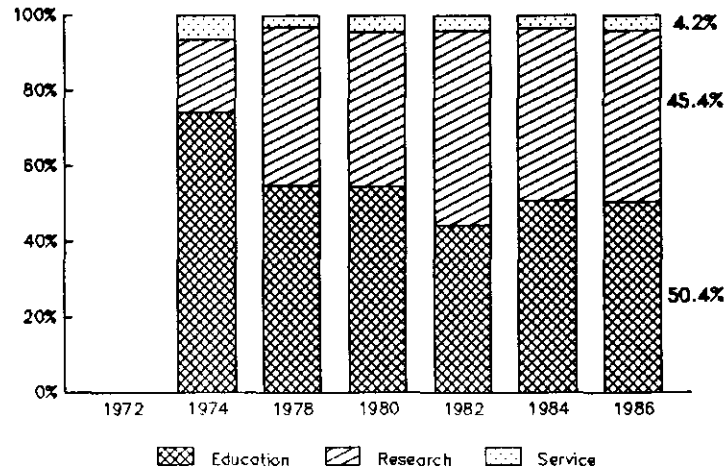
UMD School of Medicine
Enrollment



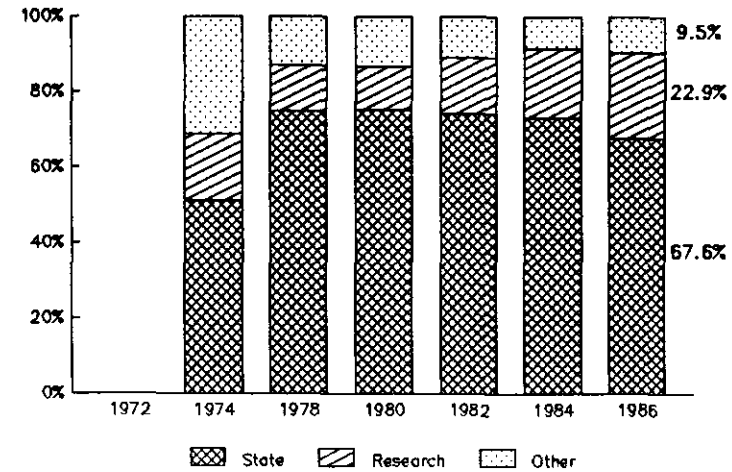
UMD School of Medicine
Costs Per Enrolled Student



UMD School of Medicine
Use of Income



UMD School of Medicine
Source of Income

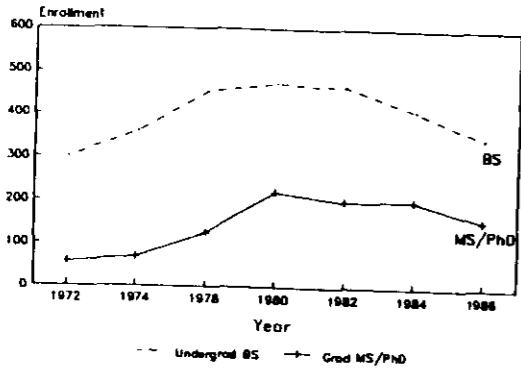


Health Sciences Cost Allocation Study

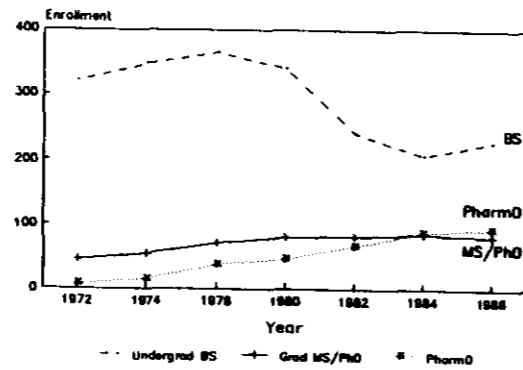
Enrollment

(See pp. 46-47, HSCAS)

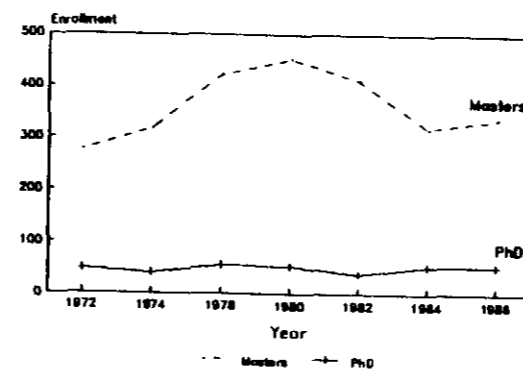
School of Nursing
Enrollment



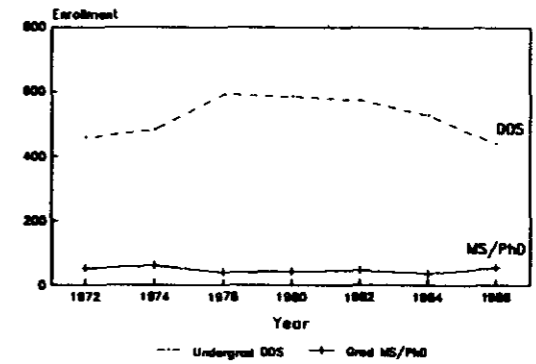
College of Pharmacy
Enrollment



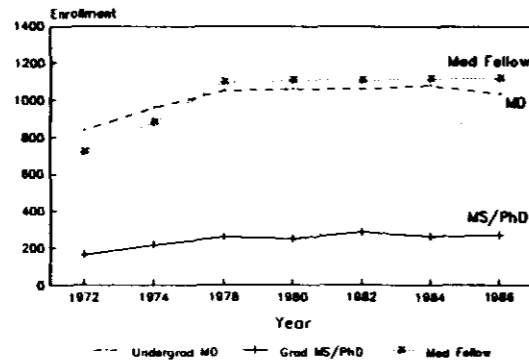
School of Public Health
Enrollment



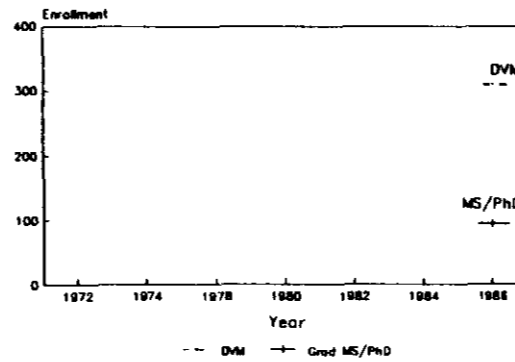
School of Dentistry
Enrollment



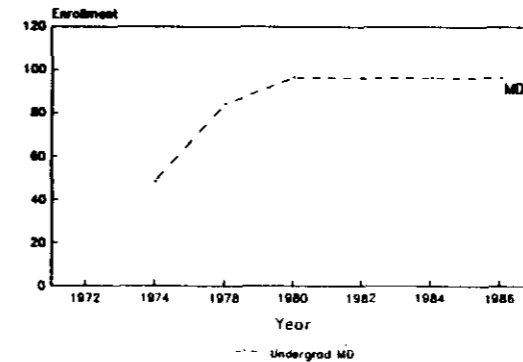
Medical School
Enrollment



College of Veterinary Medicine
Enrollment



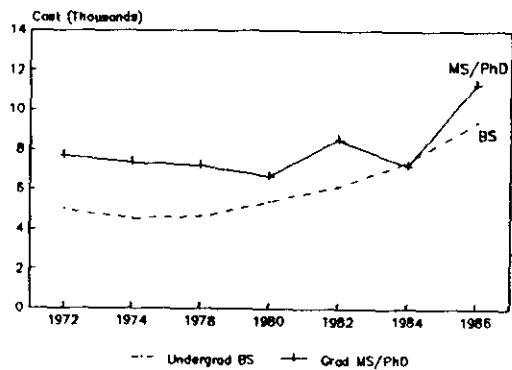
UMD School of Medicine
Enrollment



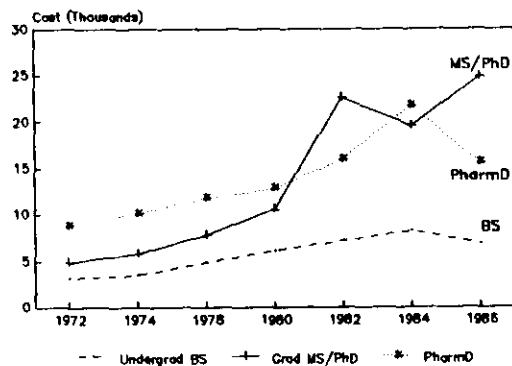
Health Sciences Cost Allocation Study Cost Per Enrolled Student

(See pp. 46-47, HSCAS)

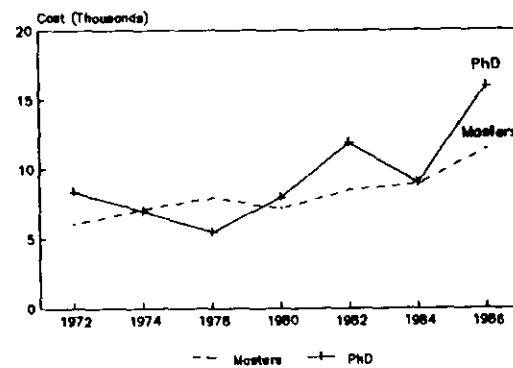
**School of Nursing
Costs Per Enrolled Student**



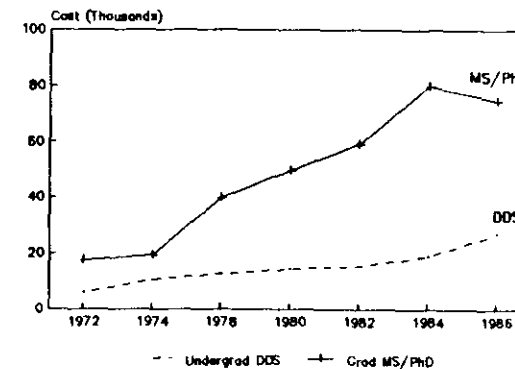
**College of Pharmacy
Costs Per Enrolled Student**



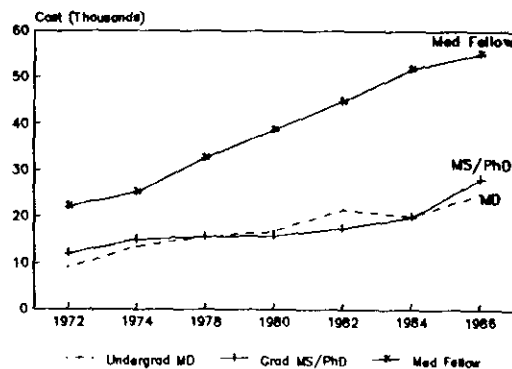
**School of Public Health
Costs Per Enrolled Student**



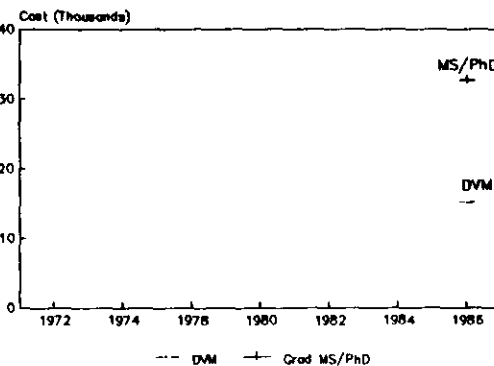
**School of Dentistry
Costs Per Enrolled Student**



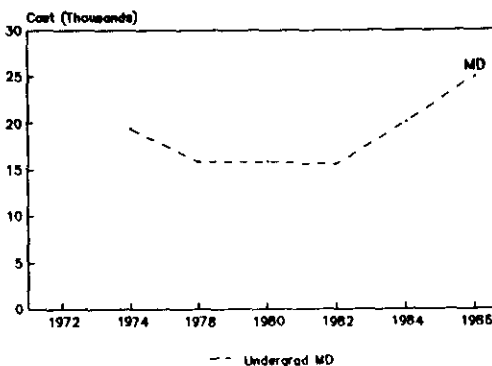
**Medical School
Costs Per Enrolled Student**



**College of Veterinary Medicine
Costs Per Enrolled Student**



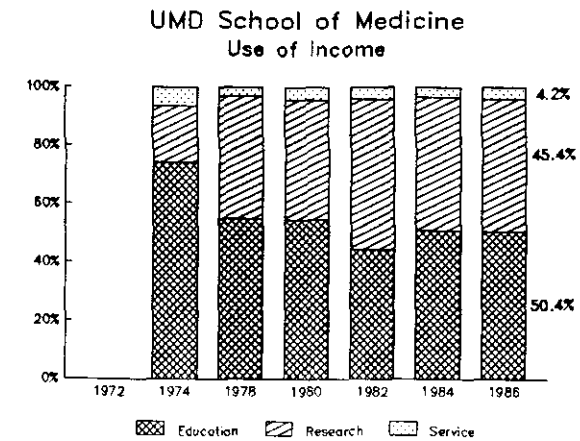
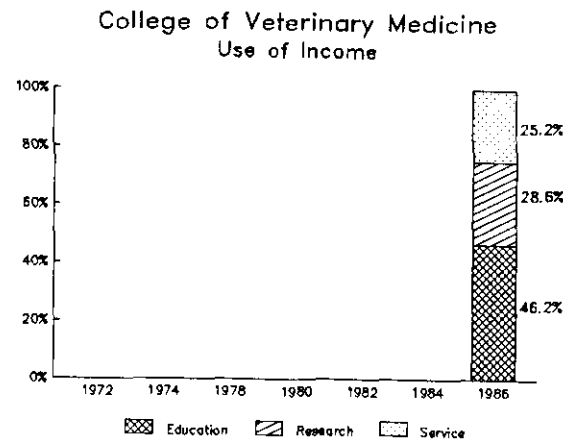
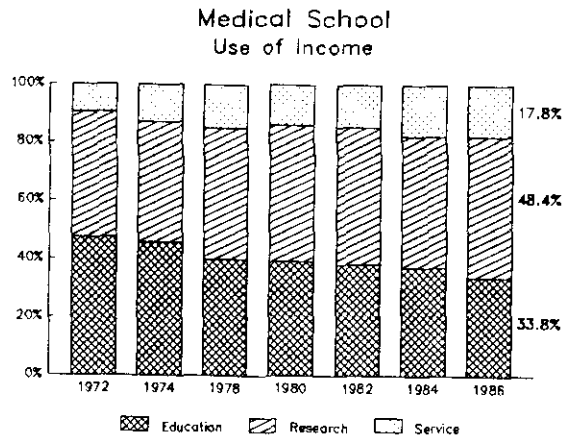
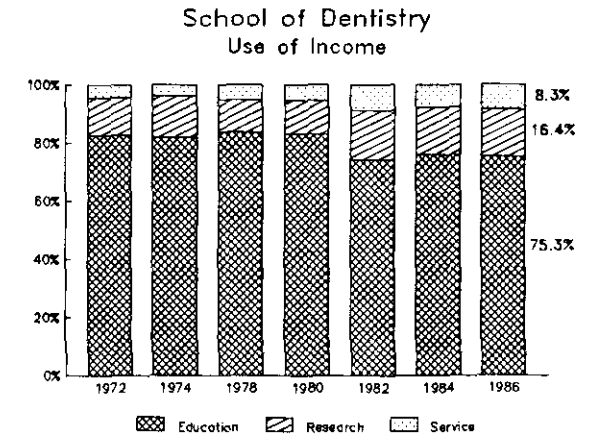
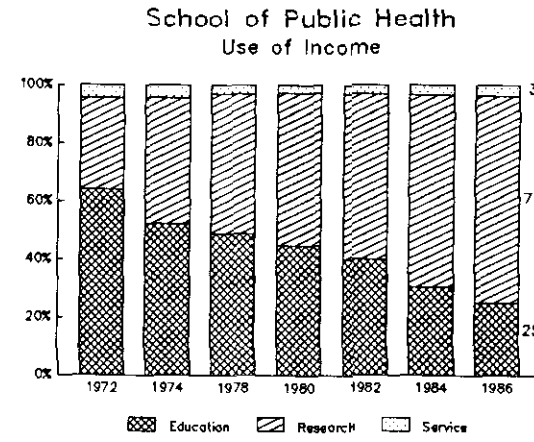
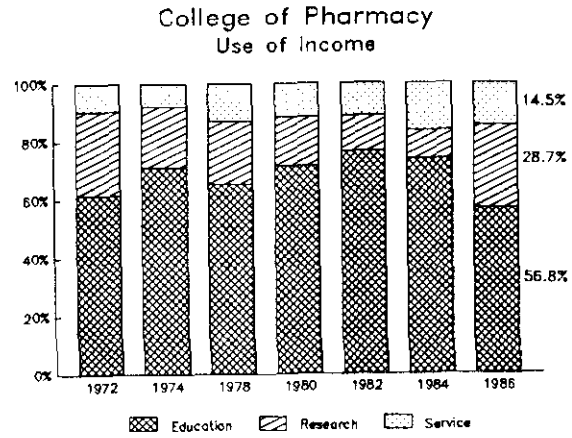
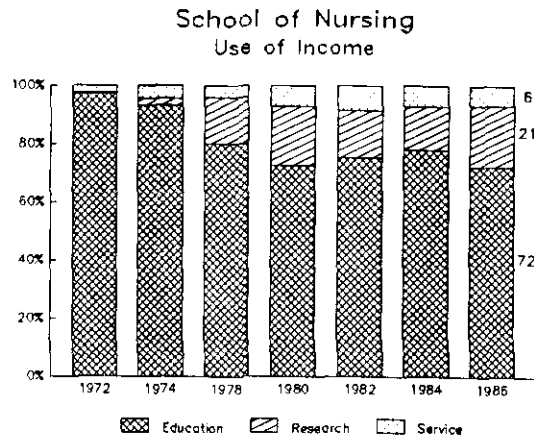
**UMD School of Medicine
Costs Per Enrolled Student**



Health Sciences Cost Allocation Study

Use of Income

(See Schedule III, HSCAS)

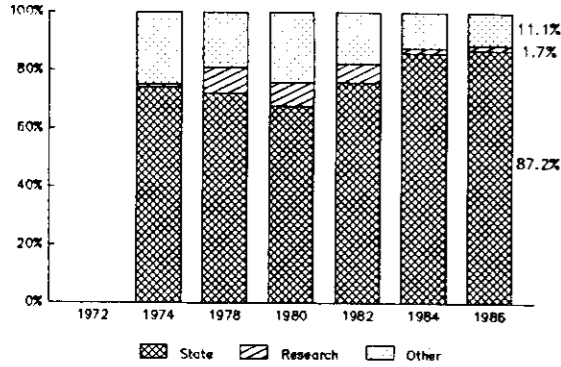


Health Sciences Cost Allocation Study

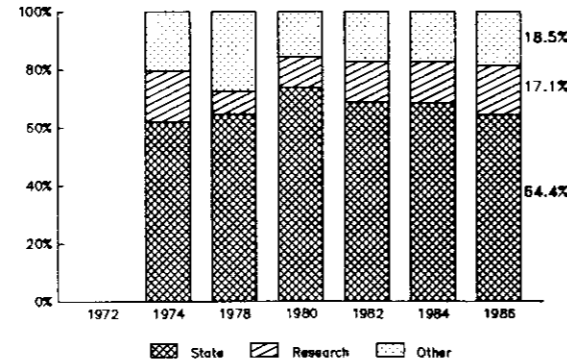
Source of Income

(See Schedule III, HSCAS)

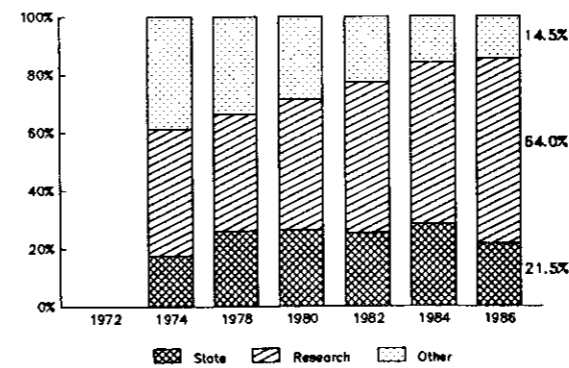
School of Nursing
Source of Income



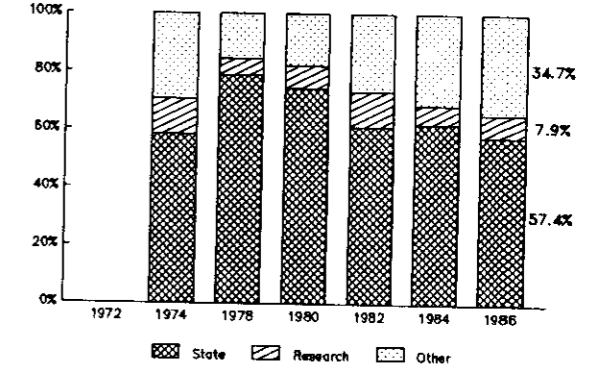
College of Pharmacy
Source of Income



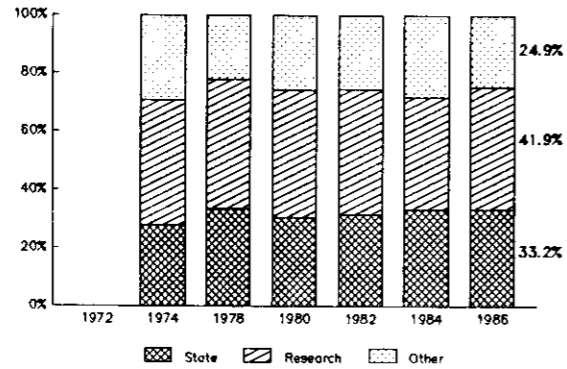
School of Public Health
Source of Income



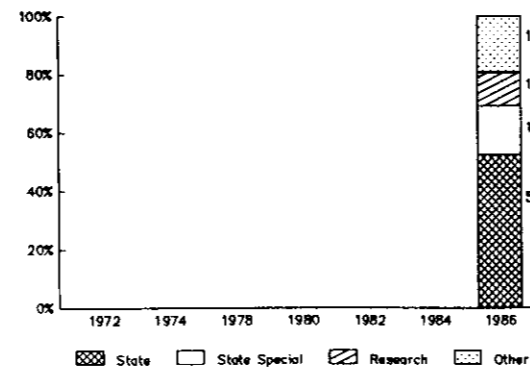
School of Dentistry
Source of Income



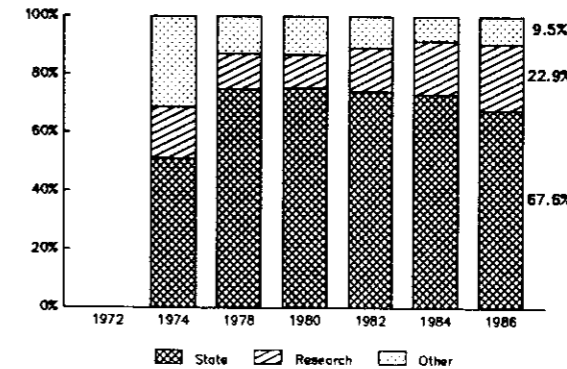
Medical School
Source of Income



College of Veterinary Medicine
Source of Income



UMD School of Medicine
Source of Income



Use of State Funds in the Health Sciences

For those who may be interested in central administration tuition recovery issues, an additional set of Program Costs Summaries has been prepared.

This additional set of schedules, which immediately follows this narrative section, highlights a conceptual tuition-calculation problem that exists in the context of the Health Sciences at the University of Minnesota and the workings of the State's Average Cost Funding Formula. The problem is also found, but probably to a lesser degree, in other schools and colleges of the University.

Tuition Implications

The Average Cost Funding Formula serves as the underlying basis of the University procedure involved in setting student tuition. As presently carried out within the University, this results in an assumption that the State appropriations to schools and colleges use the State appropriation primarily for undergraduate and graduate credit instruction and nothing else.

This assumption of nearly exclusive use of State appropriations for credit instruction is probably more applicable to community colleges and State universities than to the University of Minnesota because of the range and diversity of total University programs offered.

In the Health Sciences at the University of Minnesota, there is excellent documentation going back to 1971-72 that shows the presence of more college activities and programs than just credit instruction. Fifteen years of documentation shows the upper limits to education costs that ought to serve as the upper limits of a database for tuition recovery.

Funding formulas have a tendency to be simplistic and narrow.

Program cost information, such as contained in the Health Sciences Cost Allocation Study, can provide the basis for the upper limits of education costs above which it is not fair to charge tuition to students.

Based upon the methodology of the Health Sciences Cost Allocation Study, it is simply not the case that 100% of the professional effort of Health Sciences faculty and staff relates to direct credit instruction as it might in some lower level teaching organization.

The faculty, to gain tenure, participate in research and other programs that may or may not be fully funded on sponsored programs. If these non-instructional programs within a college are not fully funded from sponsored programs, then they may well be funded in part by State appropriations.

For example, a college may have outreach, postgraduate, and continuing education activities involving faculty and staff in either a management or production role. In a faculty subgroup, this may be only 5% effort on the average per faculty. But this 5% applied to the whole faculty of 100 results in an equivalent of 5 FTE. The salaries of 5 FTE faculty plus employee benefits and other costs accumulate to a sizable resource use.

An additional research and external professional service effort for this same faculty subgroup might, for example, be 20%. This 20% applied to the whole faculty of 100 results in an equivalent of 20 FTE plus employee benefits and other costs. These research program costs may be offset on a 50% basis by sponsored funds.

Thus small but significant portions of a college's appropriation may relate not only to outreach, postgraduate studies, and continuing education but also to research and external professional service.

In the example above, a total of 25 equivalent FTE faculty may be engaged in outreach, postgraduate, continuing education, research, and other professional service out of a total complement of 100 FTE faculty within a college.

In the above data - assuming 10 FTE are paid on outside sponsored funds - a net of 15 FTE faculty may well be counted as "direct instruction" simply because they are paid on State appropriations.

This then subjects the costs of 15 FTE faculty to the tuition pools which the students in theory support on a 1/3 basis.

The results of the application of the Average Cost Funding Formula in this way tend to show more faculty engaged in credit instruction than is actually the case. Because the students are to pay 1/3, the students end up paying 1/3 tuition not on the actual education component but on nearly all of the expenditures made on State appropriations to the schools and colleges. This is clearly wrong and it is probably not the intent of those who designed the Average Cost Funding Formula and the subsequent procedures. With Average Cost Funding Formulas in place that recognize only credit instruction as the principal "output" of a college, the student who helps support 1/3 of the "instruction cost" attributed to a college may thus be supporting in part a wide range of vital if not mandated non-instructional activities and programs.

Maybe it is time to see whether the University appropriation can be related to more of the collegiate enterprise than just credit instruction.

The subsequent charts show an alternative method by which to get at a much more appropriate way to calculate the instructional costs that should be supported by students to the extent of 1/3.

Program Costs Summaries -2, -3, and -4

The use of these charts requires some specific details and background.

The Minnesota Instructional Cost Study (MPIS, University of Minnesota) and the State's Average Cost Funding Formula relate to

colleges mainly through means of a small number of "instructional cost cells." The MPIS study, for example, interprets the State M & O income to individual schools and colleges through the format of lower division, upper division, graduate, and professional instruction.

The Health Sciences Cost Allocation Study, as noted above, looks at colleges as having a much broader set of activities and programs. The College of Pharmacy, for example, has ten major end-purpose programs that reflect full academic intent and mission.

The MPIS format classifies most of the State M & O income of the College of Pharmacy into lower division, upper division, graduate, and professional instruction (1, 3, 5, and 8-level).

Alternatively the Health Sciences Cost Allocation Study approach regards Pharmacy as having a program called "Professional First Two Years" that results in a Baccalaureate degree through completion of an Externship program. The same "Professional First Two Years" also serves as the front end of the Pharm.D. program.

The College of Pharmacy also has programs of M.S./Ph.D., Post Doctoral, Continuing Education, Other Undergrad Education, Research, Patient Service, and External Professional Services.

The basis for the Health Sciences cost allocations to the ten Pharmacy programs is a faculty and staff effort report, while the State's Average Cost Funding Formula is based upon the approach of the MPIS study that seeks, as its final output, the distribution of most of the M & O income into instructional cost cells by level.

It is not important to decide which approach is better.

It is important, however, to understand that problems are to be found in these instructional cost and tuition matters. These problems are of some concern now and may get worse in the years ahead with planned enrollment decreases.

If the interpretation continues to be made that State M & O income supports mainly credit instruction costs at 1, 3, 5, and 8-levels, then it will be increasingly difficult to demonstrate that the direct credit instruction yields tuition at the 1/3 recovery rates.

As shown in Program Costs Summaries -2, -3, and -4, the Health Sciences academic units are shown to recover almost all of the Average Cost Funding requirement of 1/3 student tuition even though the methodology for presently doing this within the University shows tuition recoveries at lower levels. Program costs for Health Sciences Undergraduate and First Professional programs are thus documented at lower levels on the basis of a cost-finding methodology that includes and defines all of the existing programs in a college.

This Health Sciences program information suggests the inadvisability of associating more State M & O income to the Undergraduate and First Professional programs than there is cost. To understand the relationships between income and costs, one must have an awareness of the full program structure of Health Sciences schools that individually have from eight to twelve separable programs of activity relating to the overall mission of the unit.

The differences in tuition recovery estimates are due to the presently used analysis method which seeks to distribute too much of the State M & O income over too few programs. Specifically there is, in Health Sciences education, significantly more to the total missions of the colleges than 1, 3, 5, and 8-level credit instruction.

If the State's Average Cost Funding Formula requires a 1/3 funding recovery from student tuition, the problem comes about when the State M & O income is attributed to credit instruction when in fact the State M & O income has over many decades been supporting not only credit instruction but also supporting in part a well-defined set of programs that the community-at-large and the tenure-earning process requires.

When the bulk of the M & O income is related to only some categories of the education spectrum with no recognition given to other academic programs within the unit that have similar visibility to many publics served, an imbalance occurs. Students pay tuition on the assumption that nearly all of the M & O income is related to credit instruction.

It is simply not fair to charge student tuition on the basis that nearly all of the M & O income to the unit is forced into the 1, 3, 5, and 8-levels of instruction.

The instructional cost pools currently used for present tuition calculations overstate instructional costs.

Program Costs Summary - 2 is the same as Total Program Costs Summary - 1 with the following adjustments:

(a) Affiliated teaching hospital costs not funded by the State M & O income are excluded. Undergraduate medical education M & O income for affiliate teaching hospitals is included.

(b) Memo Costs that are included are only those that show costs of intra-University service teaching that are predominantly supported on State funds. The imputed value of resources made available but not paid for are not included.

The above steps adjust the education costs from the Total Program Costs Summary - 1 so as to provide an estimated total costs for direct instruction of Health Sciences Undergraduate and First Professional programs supported by State M & O income. Thus within the structures of Program Costs Summaries -2, -3, and -4, instruction costs as defined by the State's average cost funding formula for direct instruction can be identified within the Health Sciences Cost Allocation Study for purposes of relating instruction costs to tuition.

One recovery measure is gross tuition as found in the University general ledger.

Another tuition measure is net tuition that is a lower amount due to all sorts of decisions. Examples are waivers awarded to students on the basis of holding various kinds of appointments, waivers awarding residency status as found in interstate agreements, Regents scholarships, etc.

On a gross tuition recovery basis, the Health Sciences tuition recovery is 31% for Undergraduate and First Professional programs.

On a net tuition recovery basis, the Health Sciences tuition recovery is 27% for Undergraduate and First Professional programs.

In the Health Sciences there is fifteen years of documentation that shows upper limits to education costs that ought to serve as the upper limits for tuition recovery. Program costs should provide the upper limits beyond which it is unreasonable to charge tuition to students.

Final Summary

The range of programs in the Health Sciences extends far beyond lower division, upper division, and graduate level credit instruction that exists as the principal output in other education systems in Minnesota.

Much more is demanded of Health Sciences faculty than just credit instruction. A full understanding of the range of programs that have long been supported by State appropriations ought to demonstrate that the present tuition-charging practices need an alternative, namely charging the students 1/3 on only the direct instruction programs. Through a technique of income analysis, it can be demonstrated that there is a reasonable way to charge tuition at the mandated fractional amount but only on the proper base of instruction cost.

For determining the extent of resources going to the separate programs within a college, the Health Sciences have had a program effort reporting system since 1971-72. An alternative exists for the collection of program cost data. Student tuition could then be determined on a more equitable basis as compared to the present workings of the Average Cost Funding Formula and the derivative procedures.

1985-86 HEALTH SCIENCES PROGRAM COSTS SUMMARY - 2

	ACADEMIC HEALTH SCIENCES UNITS						TEACHING HOSPITAL UNITS						Memo Item Costs	Total Program Costs	Enrollment	Costs/ Enrollment
	Medical School	School Of Dentistry	School of Public Health	College Of Pharmacy	School Of Nursing	College Of Vet Med	UMD School of Medicine	University Hospital & Clinic	Hennepin City Medical Center	St.P-Ramsey Medical Center	VA Medical Center	Other Public & Private Hospitals				
SCHOOL OF NURSING																
Undergrad B.S.	390,501		18,619		1,743,396			190,587					364,344	2,707,447	346	7,825
Grad M.S./Ph.D	37,221		138,516		1,459,128								124,175	1,759,040	156	11,276
Continuing Education					88,586									88,586	1,751	
Other Education					50,810									50,810		
COLLEGE OF PHARMACY																
Undergrad B.S.	176,965		1,204	872,603	17,728	63,971		72,890					60,207	1,265,568	226	5,600
Doctor of Pharmacy	72,282		492	623,692	7,241	26,129		129,581					0	859,417	93	9,241
Grad M.S./Ph.D	103,073		261,828	1,385,166				80,387					176,115	2,006,569	82	24,470
Post Doctoral				231,265										231,265	35	
Continuing Education				191,611				14,032						205,643	2,483	
Other Education				126,027										126,027		
SCHOOL OF PUBLIC HEALTH																
Graduate Master's	121,207		2,814,230	242	543	12,013		31,513					234,922	3,214,670	336	9,567
Graduate Ph.D			818,953										6,368	825,321	52	15,872
Continuing Education			474,320											474,320	476	
Other Education			1,435,582											1,435,582		
SCHOOL OF DENTISTRY																
Undergrad DDS	615,172	9,653,593	995					36,981					0	10,306,741	423	24,366
Dental Hygiene		693,337		121									2,679	696,137	49	14,207
Grad M.S./Ph.D & Other	183,242	4,470,952	113,177					64,674					74,426	4,906,471	69	71,108
Continuing Education		759,487												759,487	5,156	
Other Education		275,374												275,374		
MEDICAL SCHOOL																
Undergrad M.D.	8,312,847		3,908		1,899			825,526	812,574	812,574	0	318,087	11,421	11,098,836	1,030	10,776
Grad Med Fellow & Spec	20,117,693							5,206,583					0	25,324,276	1,116	22,692
Grad M.S./Ph.D	3,536,943	8,069	283,788	8,785		11,946		482,443					420,885	4,752,859	261	18,210
Allied Health	1,699,664		406					944,077					22,560	2,666,707	211	12,638
Continuing Education	3,222,512							355,466						3,577,978	6,958	
Other Education	1,390,622							844,071						2,234,693		
VETERINARY MEDICINE																
Undergrad DVM			74		4,451,142								22,419	4,473,635	310	14,431
Grad M.S./Ph.D	223,326		221,287	32,213				2,381,344					215,915	3,074,085	94	32,703
Continuing Education					1,140,391									1,140,391	1,823	
Other Education					525,233									525,233		
UMD MEDICINE																
Undergrad M.D.							2,395,872						0	2,395,872	96	24,957
Allied Health							17,497						0	17,497		
Undergrad Other							339,419						0	339,419		
Grad Med Fellow & Spec							195,287						0	195,287		
Graduate Other							225,159						0	225,159		
Continuing Education							137,429						0	137,429		
Total Education	40,203,270	15,860,812	6,587,379	3,471,725	3,369,331	8,612,169	3,310,663	9,278,811	812,574	812,574	0	318,087	1,736,436	94,373,831		
Research	57,754,624	3,479,319	18,926,603	1,771,551	1,009,878	5,320,857	3,001,313						3,981,943	95,246,088		
Patient Service	19,301,865	1,166,185	264,510	177,237	30,441	4,373,799	34,897						1,822,491	27,171,425		
External Professional Service	1,997,272	600,470	702,029	707,742	303,709	322,068	240,927						296,094	5,170,311		
TOTAL COSTS	119,257,031	21,106,786	26,480,521	6,128,255	4,713,359	18,628,893	6,587,800	9,278,811	812,574	812,574	0	318,087	7,836,964	221,961,655		

