

# University of Illinois

## BUDGET REQUEST FOR OPERATING AND CAPITAL FUNDS

FISCAL YEAR 1983



PREPARED FOR PRESENTATION TO THE  
BOARD OF TRUSTEES  
SEPTEMBER 17, 1981

## PREFACE

The preliminary Budget Request for Fiscal 1983 was presented to the Board of Trustees in July when the outcome of the Fiscal 1982 budget process was uncertain. That uncertainty has now been resolved. Higher education in Illinois, and this University specifically, received a Fiscal 1982 appropriation significantly above that available to most other programs of State government. With some internal reallocation and belt tightening, it will be sufficient to allow us to make progress toward our academic goals, including more competitive faculty and staff compensation and some modest program improvements.

One of the reasons for the "relative success" of the University in securing support for FY 82 was the fact that higher education has demonstrated that it uses its funds wisely. This same prudent stewardship will continue.

As we look toward FY 83, storm clouds appear on the horizon. We have seen only the beginning, not the end of Federal budget cuts. Cuts already made will have consequences in diverse areas, including research funding, student aid, health care reimbursement and a host of other areas. These will reduce Federal revenues available to states, including Illinois. More Federal budget cuts are likely.

The economy of Illinois remains weak at this writing, and as a consequence, state tax revenues are lower than otherwise would be projected. Revenue lost as a result of tax cuts in earlier years will continue to present a problem. As in the past, we must urge that those policymakers who must make decisions recognize the necessity of a strong University if

we are to have ultimately a stronger economy in Illinois and sustain the quality of life in our great State. Pressures in contrary directions, however, will be great.

The Operating Budget request for FY 83 presented herein calls for an increment of \$48.7 million or 12.8% beyond the Fiscal 1982 base. The Capital Budget has been pared to a request of \$20.9 million for the "Regular" component. These requests are prudent, moderate and fully defensible. Nonetheless, given the factors mentioned earlier, and the gap in Retirement payments that must be filled, the annualization of salary increases that must be made, and the unavailability of surplus balances in the Income Fund, the request is ambitious.

What are the possible responses? Eighty percent of the budget goes for faculty and staff salaries. Should we reduce salary increases? We have repeatedly documented the fact that faculty and staff compensation ranks low relative to those universities with whom we must compete and we are significantly below State Civil Service norms.

Should we squeeze expense and equipment budgets? These have fallen far behind inflation for several years, to the point that equipment deficiencies are emerging as the major problem, along side competitive compensation. A great university cannot function effectively in the absence of adequate equipment and support services.

Should we reduce programs? The University, as the cornerstone of higher education in this State, should contribute more, not less, to

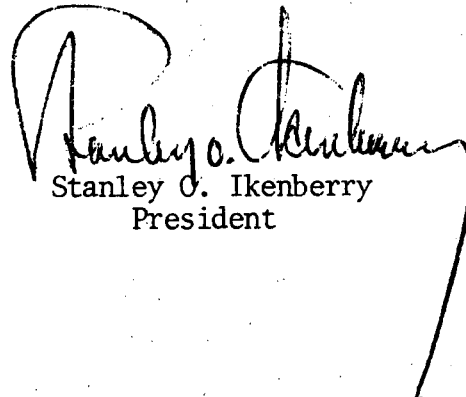
Illinois--a State which has lagged behind the rest of the nation in economic growth for the last decade.

Should we seek other funds? Yes. The Campaign for Illinois is underway. Its support will be meaningful and essential, but it will not replace the need for responsible support of the annual Operating Budget.

Should we increase tuition? Yes, at the appropriate time, it is clear we must. The impact of several years of no increases in the 1970s remains. This Board took steps to strengthen the portion of the overall financial base provided from tuition, but, nonetheless, tuition revenues account for only 10% of the total appropriation base. Thus, increases do not generate large amounts of new funds.

Such a candid display of the University's problems need not be self-defeating. We will not retreat from our resolve to sustain the University of Illinois as one of the great citadels of learning in the world. We must, however, use limited resources to the best advantage, pursue needed support from all possible sources, and be realistic about the difficult time in which we find ourselves.

Adequate support for the academic programs and operations of the University is indispensable. I therefore recommend your approval of the enclosed request.



Stanley O. Ikenberry  
President



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PART I

INTRODUCTION TO THE OPERATING AND CAPITAL BUDGET REQUEST  
FISCAL YEAR 1983

## FY 1983 Operating Budget Request

### The FY 1982 Budget in Perspective

Throughout the process of providing background information to the Board of Trustees for the development of the FY 1983 operating budget, the outcome of the final FY 1982 budget was described as "uncertain" at best. That uncertainty was attributable to an unstable economic climate in the State of Illinois, compounded by the difficulty of assessing the possible impact of federal budget actions. Stated most simply, revenue projections--the base upon which any State budget must be built--were inaccurate, and exhibited a downward trend larger than expected at each point in the process that new information became available. As one result, the FY 1982 budget originally announced by the Governor in March went through a series of four major reductions. Adding to the dilemma of declining resources has been the corresponding increase in a variety of public assistance programs. As the economic climate worsened and more and more persons were unemployed, public assistance costs rose. These additional costs, plus the need to provide minimal increases for those already receiving assistance, placed an even heavier burden on available new revenues and further restricted incremental funds available for all other programs.

Within this context of reduced State revenues, higher education in Illinois received extremely strong support in the appropriation of General Revenue Funds. Based upon data available from the Bureau of the Budget displayed in Table 1, total General Revenue appropriations in FY 1982 are 3.24 percent above the FY 1981 level. Higher Education appropriations (excluding Retirement and IBA rentals) increased by 5.69%, and the University of Illinois appropriation rose by 5.88%. In contrast, appropriations for elementary and secondary education grew by 2.42%; those for all State agencies and departments except Public Aid rose by 2.52%. Public Aid, faced with the inevitable growth which comes with a downturn in the economy, increased by 10.15%. And it is crucial to note that even those relatively modest increases were achieved only through significant reductions in State-supported retirement systems (down 33.41%) and the Illinois Building Authority (a

Table 1  
State General Fund Appropriations  
For  
Operations and Grants  
(Dollars in Millions)

	<u>FY 1981</u>	<u>FY 1982</u>	<u>\$ Change</u>	<u>% Change</u>
Elementary/Secondary Education	\$ 1,903	\$ 1,949	\$ + 46	+ 2.42%
Higher Education	<u>897</u>	<u>948</u>	<u>+ 51</u>	<u>+ 5.69%</u>
Subtotal Education	\$(2,800)	\$(2,897)	\$ (+97)	(+ 3.46%)
Public Aid	\$ 2,590	\$ 2,853	\$ +263	+10.15%
Other Agencies	1,941	1,990	+ 49	+ 2.52%
Retirement (All Systems)	422	281	-141	-33.41%
IBA Rentals (All Rentals)	<u>78</u>	<u>64</u>	<u>- 14</u>	<u>-17.95%</u>
	\$ 7,831	\$ 8,085	\$ +254	+ 3.24%

planned drop of 17.85% due to significantly better than projected interest on accumulated debt retirement funds). Although higher education operations and grants (once again excluding Retirement and IBA Rentals) comprised only 11.5% of the total FY 1981 General Revenue Fund base, they received 20% of the incremental funds appropriated for FY 1982. Clearly both the General Assembly and the Governor recognized a very strong commitment to provide as much for higher education as severely limited resources would allow.

In addition to receiving a relatively larger share of available new General Revenue Funds than most State agencies, a combination of tuition increases plus the appropriation of accumulated balances created total increases in the Income Fund for all systems of higher education ranging from 14 percent to over 24 percent. As displayed in Table 2, these Income Fund increases, plus additional increases in other appropriated funds brought overall funding increases for the higher education systems except the University of Illinois to an average of 7.36%, with the increase for the University of Illinois at an 8.0 percent level. Although the total increase received in FY 1982 was lower than those of the past two years, it compares favorably with those received during most of the rest of the past decade, as displayed in Figure 1.

Within the total FY 1982 increase in appropriated funds for the University of Illinois it was possible to address what for some time has been the University's overwhelming top budget priority, improvement of faculty and staff compensation. Total salary increases for FY 1982 for continuing employees will average 10 percent, with 8% granted at the beginning of the academic year, and an additional 2 percent to follow at mid-year. Based upon the most current information available about increases at other institutions, it appears that increases of this magnitude will provide some progress toward our long-standing goal of reaching at least third place among Big Ten institutions in total compensation.



Table 2  
Comparison of FY 1981 and FY 1982 Appropriations  
to  
Public Senior Universities\*  
(Dollars in Thousands)

		<u>All Systems Other Than University of Illinois</u>	<u>University of Illinois</u>	<u>All Public Senior Univ.</u>
GRF	FY 1981 Appropriations	\$329,927.3	\$311,529.1	\$641,456.4
	FY 1982 Appropriations	346,716.4	329,848.3	676,564.7
	\$ Change	16,789.1	18,319.2	35,108.3
	% Change	5.09%	5.88%	5.47%
Income Fund	FY 1981 Appropriations	77,118.2	37,011.9	114,130.1
	FY 1982 Appropriations	90,305.4	45,984.7	136,290.1
	\$ Change	13,187.2	8,972.8	22,160.0
	% Change	17.10%	24.24%	19.42%
Other Appropriated Funds	FY 1981 Appropriations	2,283.6	5,009.3	7,292.8
	FY 1982 Appropriations	2,434.4	6,051.8	8,486.2
	\$ Change	150.8.	872.7	1,023.4
	% Change	6.60%	20.81%	16.36%
Total	FY 1981 Appropriations	409,329.1	353,550.3	762,879.4
	FY 1982 Appropriations	439,456.2	381,884.8	821,341.0
	\$ Change	30,127.1	28,334.5	58,461.6
	% Change	7.36%	8.01%	7.66%

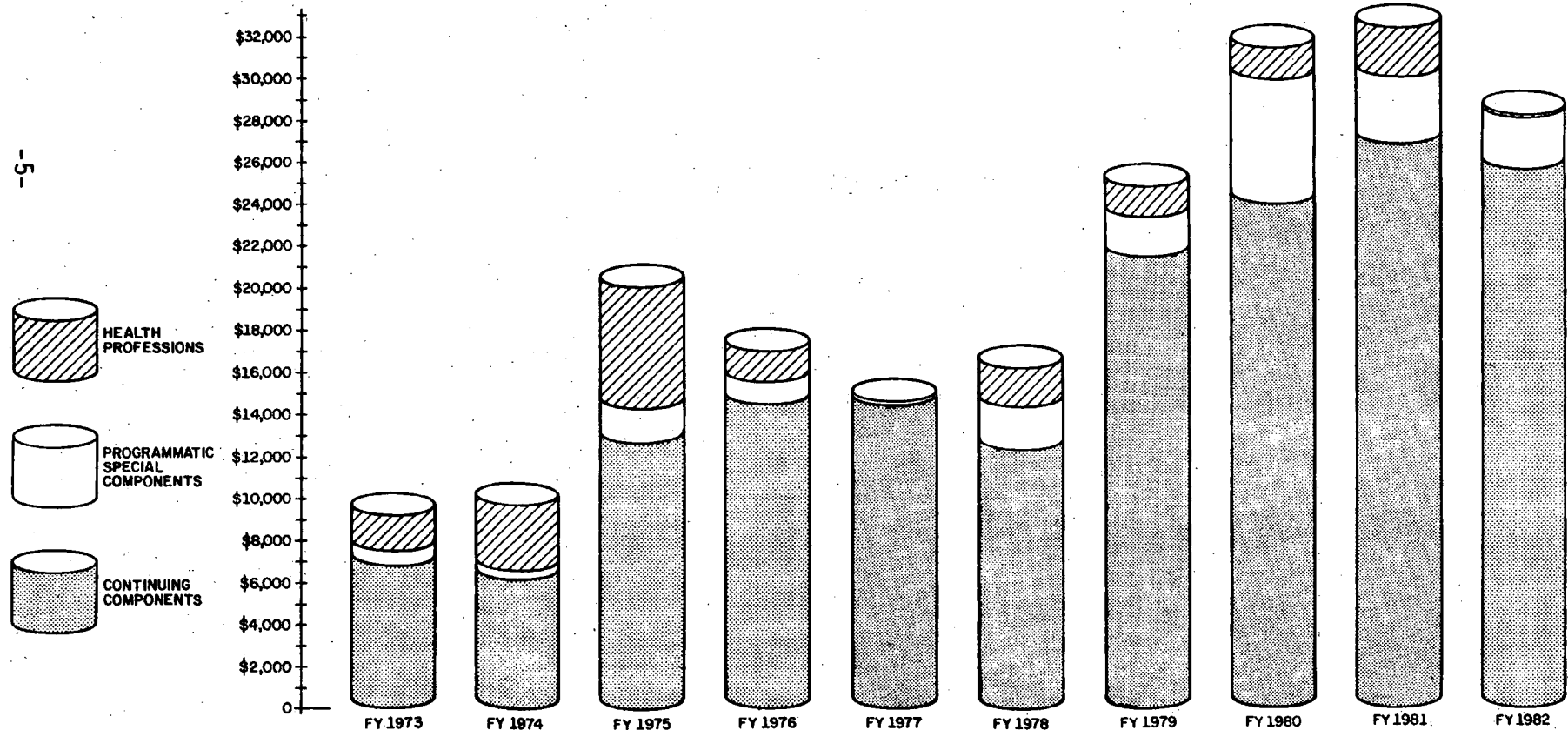
\*Excluding Retirement and IBA Rentals. Amount for University of Illinois includes \$170.0 appropriated from the Real Estate Research Fund under provisions of HB 774.

FIGURE 1

## FY 1973-82 STATE INCREMENTAL FUNDS RECEIVED BY THE UNIVERSITY OF ILLINOIS

(GENERAL REVENUE, INCOME AND SPECIAL FUNDS  
EXCLUDING RETIREMENT, IBA AND CAPITAL GRF)  
(DOLLARS IN THOUSANDS)

COMPONENT	FY 1973	FY 1974	FY 1975	FY 1976	FY 1977	FY 1978	FY 1979	FY 1980	FY 1981	FY 1982
PREVIOUS YEAR'S BASE	\$179,061.1	\$188,698.0	\$198,381.5	\$218,424.5	\$235,375.1	\$250,019.4	\$265,925.8	\$290,681.4	\$321,158.3	\$353,550.3
NET INCREMENT	9,233.8	9,683.0	20,043.1	16,950.7	14,644.3	16,140.0	24,755.6	31,279.3	32,391.9	28,334.6
NET INCREMENT AS A PERCENT OF PREVIOUS YEAR'S BASE	5.2%	5.1%	10.1%	7.8%	6.2%	6.5%	9.3%	10.8%	10.1%	8.0%
CONTINUING COMPONENTS	6,859.8	6,191.3	12,680.0	14,230.7	14,488.0	12,347.1	21,422.9	23,803.4	26,840.1	25,461.0
PERCENT OF TOTAL INCREMENT	74.3%	63.9%	63.3%	84.0%	98.9%	76.5%	86.5%	76.1%	82.9%	90.4%
PROG. & SPEC. COMPONENTS	649.1	352.5	1,586.1	1,220.0	156.3	2001.4	1,859.7	6,008.4	3,242.0	2,733.2
PERCENT OF TOTAL INCREMENT	7.0%	3.6%	7.9%	7.2%	1.1%	12.4%	7.5%	19.2%	10.0%	9.6%
HEALTH PROFESSIONS	1,724.9	3,139.2	5,777.0	1,500.0		1,791.5	1,473.0	1,467.5	2,309.8	140.4
PERCENT OF TOTAL INCREMENT	18.7%	32.4%	28.8%	8.8%		11.1%	6.0%	4.7%	7.1%	0.5%



In addition to the progress which appears likely in compensation improvement, the establishment of a differential tuition plan for FY 1982 has meant that approximately \$1.8 million was available to the University for making improvements in academic programs. Although this amount is modest in terms of what was originally sought and needed, it represents the only program improvement funds available within all of higher education for FY 1982. Other new program funds totalling \$170,000 were appropriated from the recently established Real Estate Research Fund. This fund has been created to provide for research on problems related to real estate in Illinois and to communicate the results of that research throughout the State.

Unfortunately one area of support for continuing operations was especially hard hit by budget reductions during the legislative process. Funds to provide for cost increases for goods and services, including equipment and library acquisitions, were limited to a 4 percent increase--an amount which is simply inadequate, when faced with a general rate of inflation more than double the price increase amount, and rates of inflation for some types of equipment and for library acquisitions significantly above the general rate of inflation. These areas must be addressed in our FY 1983 request, and some recovery is essential if our current level of operations is to be protected.

Finally, two aspects of the final outcome of the FY 1982 budget process will have a major impact upon FY 1983, even before any specific program within the 1983 request can be addressed. As noted, one technique used to grant an overall 10% salary rate increase for FY 1982 was to delay 2% of the total increase until mid-year. While this saves cash necessary to implement an overall 10% increase in FY 1982, it also means that additional funds will be required in FY 1983 to sustain the salary levels which will be in effect when FY 1982 ends. The University will carry a \$6.2 million "annualization" need into FY 1983, which means that the first \$6.2 million of available compensation increase funds will be required to meet the salary level now in place.

Approximately \$2.5 million of this amount is attributable to the the mid-year increase.

In addition, the Income Fund appropriation for FY 1982 includes approximately \$3.0 million in balances which had accumulated in the Fund over the past two years as enrollments exceeded the levels projected at the time appropriations were determined. These balances, obviously, are available for appropriation on a one-time basis only, and since they will not recur, they will have to be replaced from new revenues for FY 1983 just to maintain the current level of operations.

In summary, in the context of the budget increases received by nearly all of the State agencies and departments in Illinois, one can look back at the FY 1982 budget process with a certain sense of satisfaction, for the University was able to accomplish some of its highest priority objectives with respect to faculty and staff compensation and increased program support. The new program of differential tuition increases was widely accepted. Nevertheless, operations will be impaired by a loss of purchasing power in the funds available for goods and services, and especially for library acquisitions and for high technology equipment, and these deficiencies must be addressed in FY 1983. Equally troublesome, the University enters the FY 1983 budget cycle with a nearly \$10 million gap which must be filled merely to remain even with the level of operations established for FY 1982. And finally, the FY 1982 reduction in Retirement funding, which took the appropriation below the net payout level, must be addressed in the near future, further constraining the already limited additional revenues likely to be available.

Although there have been some relatively lean years in the past decade in which the budget process ended with an appropriation inadequate to meet the full range of University needs, seldom has there been as much cause for concern as there is at the beginning of the FY 1983 budget cycle about the potential availability of sufficient resources to meet even the barest of necessities. In spite of the strength of

the support the University received during the FY 1982 process, that support cannot be taken for granted in FY 1983. The University must renew its efforts to insure that the case for improved fiscal resources is as firm and as broadly understood as possible, and that it is understood that the request for new funds recognizes both the extremely limited nature of those funds for FY 1983, and the continuing need to manage what we already have with care and concern.

#### FY 1983 Budget Request

The major issues which will affect the overall level of funding for FY 1983 have already been discussed, and can be summarized as follows:

- an overall economic climate for the State of Illinois which, at best, appears to be similar to the one faced in FY 1982. New tax relief measures at the State level, some of which were deferred in FY 1982, combined with Federal tax reductions could produce an even more constrained economic climate than now projected.

- the lack of availability of further one-time reduction strategies in meeting other State needs, such as the cut suffered by Retirement systems, will place further stress on the possibility of reducing, rather than increasing, current levels of General Reveue support. As soon as possible, efforts must be made to restore Retirement funding at least to a net payout level as soon as possible.

- FY 1982 cash-savings strategies such as the mid-year salary increase, plus the appropriation of nonrecurring Income Fund balances must have first claim on any new funds for the University of Illinois in FY 1983. Some \$10.0 million must go to continue the level of operation which will be in effect at the end of FY 1982.

- Improving compensation for faculty and staff will be the primary goal for the FY 1983 budget, as it has been in the recent past. It cannot be the sole priority, however, since serious deficiencies in library acquisitions and scientific and highly technological equipment.

adequate utilities and general price increase funds, sufficient funds to operate newly constructed buildings, and some minimal amount of program improvement funds must also be secured.

Given the restrictive set of factors constraining the general economic climate in Illinois, and given the severe reduction which many elements of State government faced in FY 1982 and from which they will be attempting to recover in FY 1983, the University will face unusually competitive circumstances in the allocation of very limited new State resources. In the face of these circumstances, the FY 1983 operating budget has been prepared with by far the greatest attention--nearly 85% of the total request--devoted to Continuing Components; that is, funds required to maintain the current level of operations without further losses to inflation. Program improvement levels have been severely limited, with expanded or improved program efforts held to less than 9 percent of the total request, and slightly more than 5 percent targeted to the replacement of high technology and scientific equipment. The composition of the request is displayed in Figure 2.

The specific components of the request include the following:

- a second consecutive year of compensation increases totalling 10 percent, comprised of an initial 8 percent increase followed by an additional 2 percent at mid-year. Given the labor intensive nature of higher education--nearly 80 percent of our total operating budget goes to salaries and wages--the compensation improvement request accounts for nearly 60 percent of the total request.

- general price increase funds at the 8.5 percent level, to match projected inflation rates.

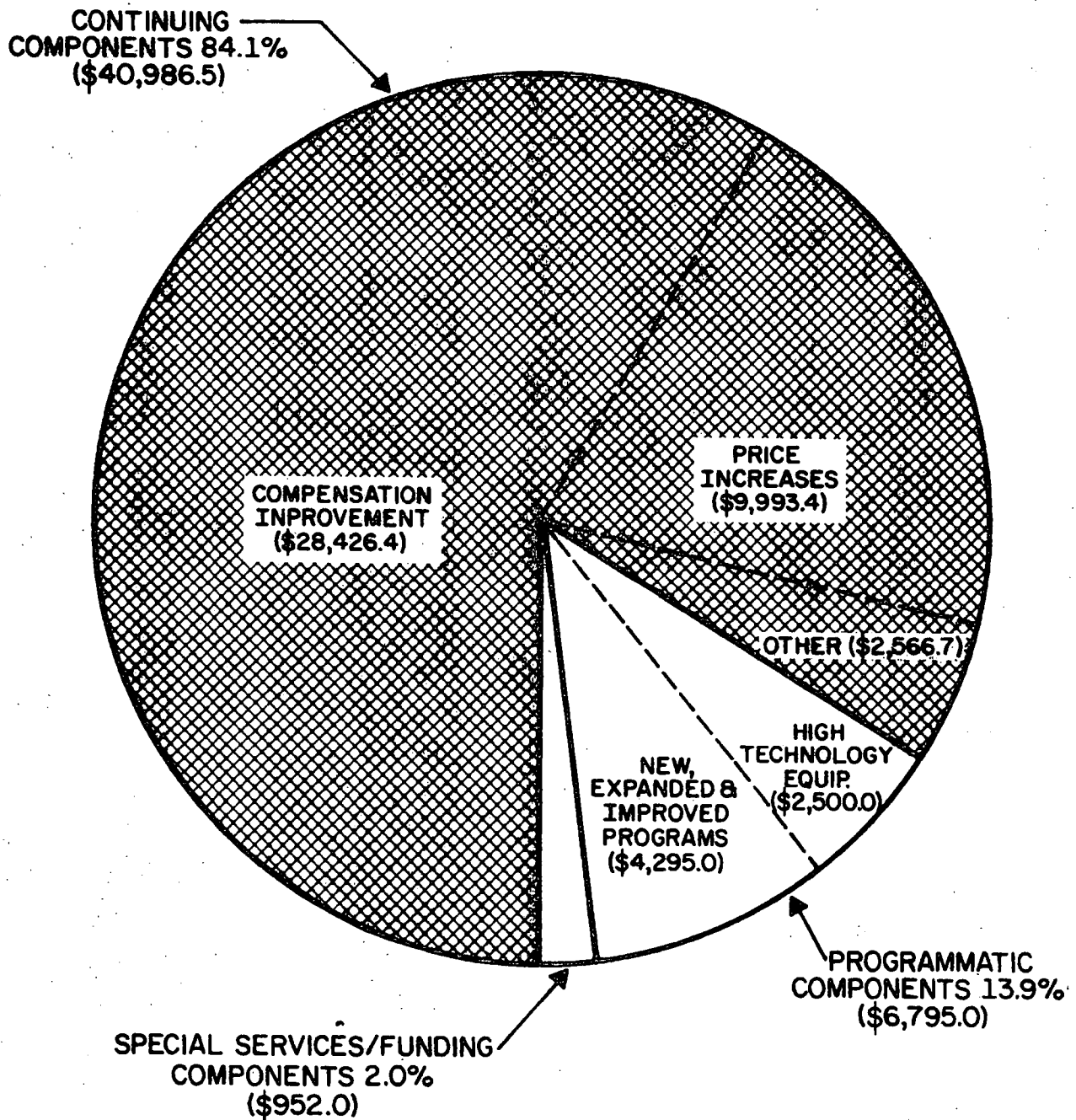
- utilities price increase funds of 18 percent to meet the current "best guess" estimates of fuel cost increases.

- a 20 percent increase in funds for library acquisitions, to cover anticipated costs and to overcome some of the recent losses to inflation.

FIGURE 2

# COMPONENTS OF THE FY 1983 OPERATING BUDGET REQUEST (DOLLARS IN THOUSANDS)

TOTAL REQUEST \$48,733.5



-- \$2.5 million in funds to provide for the operation and maintenance of new facilities, especially two major buildings in the Food for Century Three Program--the Veterinary Medicine Basic Sciences Building and the Agricultural Engineering Sciences Building.

-- \$4.3 million in new, expanded and improved program support. This level represents two percent of the University's State-funded Instruction base, and has been reduced substantially from the level sought in past years, in view of the more crucial needs for resources in other components of the budget in FY 1983.

-- \$2.5 million in high technology equipment to replace obsolete and outmoded scientific instructional and research equipment at each campus.

-- \$1.0 million in special services/funding requirements for activities such as the Cooperative Extension Service, County Board Matching, the Fire Services Institute, and so on which are supported from sources other than the General Revenue Fund.

The full request is outlined in Table 3, with a list of individual programs shown in Table 4. The full request totals \$48.7 million, or a 12.8 percent increase over the FY 1982 operating base. Faced with the revenue restrictions which have been identified, the FY 1983 percentage increase of 12.8 has been reduced from the 13.6 percent figure of one year ago.

#### The Enrollment Picture

Table 5 outlines actual headcount enrollment data for fiscal years 1979, 1980, and 1981, with projections for the period 1982-1986. Several aspects of these data should be noted.

For the Chicago Circle campus, data reported in last year's budget document indicated that headcount enrollment was expected to stabilize at 20,000 per year. As with many other campuses in Illinois and elsewhere, FY 1981 produced enrollment levels above those earlier projected for Chicago Circle--some 1,000 "additional" students. While this larger level is not likely to be sustained at its FY 1981 peak, it does



Table 3  
FY 1983 Incremental Operating Budget Request  
(Dollars in Thousands)

I. Continuing Components		
A. Compensation Increases		\$28,426.4
1. Annualization	\$ 6,177.3	
2. Regular Increase - 8%	19,347.0	
3. Catch-Up - 2%*	2,902.1	
B. General Price Increase - 8.5%		3,894.4
C. Utilities Price Increase - 18%		5,024.3
D. Library Price Increase - 20%		1,074.7
E. O & M New Areas		2,484.9
F. Worker's Compensation		<u>81.8</u>
Subtotal, Continuing Components		\$40,986.5
% of FY 1982 Base**		10.73%
II. Programmatic Components		
A. Expanded/Improved Programs		\$ 3,930.0
B. Library Computer System		365.0
C. High Technology Equipment		<u>2,500.0</u>
Subtotal, Programmatic Components		\$ 6,795.0
% of FY 1982 Base		1.78%
III. Special Services/Funding		
A. County Board Matching		\$ 427.0
B. Cooperative Extension Service		391.0
C. Fire Service Institute		105.0
D. Office of Real Estate Research		<u>29.0</u>
Subtotal, Special Services/Funding		\$ 952.0
% of FY 1982 Base		.25%
IV. Total Budget Request		\$48,733.5
% of FY 1982 Base		12.76%

\*2% catch-up funding effective mid-year, FY 1983.

\*\*FY 1982 Base = 381,884.8 excluding Retirement and IBA Rentals.

TABLE 4  
FY 1983 EXPANDED AND IMPROVED PROGRAMS  
(Dollars in Thousands)

<u>Campus/Program</u>	<u>Enhancement of Academic Programs</u>	<u>Revitalization of Science and Technology</u>
<b>CHICAGO CIRCLE</b>		
Extended Day	\$ 140.0	-
High Demand/Day & Evening Programs	195.0	\$ 225.0
Graduate Student Support	40.0	-
Urban Transportation Center	-	100.0
Undergraduate Instructional Labs	-	100.0
Chicago Circle Total:	\$ 375.0	\$ 425.0
\$800.0		
<b>MEDICAL CENTER</b>		
Regional Development Program for Nursing Education	\$ 325.0	-
Interdisciplinary Studies in the Basic Medical Sciences	-	\$ 375.0
Clinical Education in the Colleges of Nursing & Pharmacy	200.0	-
Medical Center Total:	\$ 525.0	\$ 375.0
\$900.0		
<b>URBANA-CHAMPAIGN</b>		
Response to Changing Student Demand	\$ 195.0	\$ 645.0
Graduate Student Support	250.0	-
Interdisciplinary Research & Extension Program to Improve Surface Water Quality in Rural Areas	-	100.0
A Program of Fundamental Engineering Research Directed to Illinois Industry	-	150.0
Graduate Research Board	-	280.0
College of Law	130.0	-
College of Veterinary Medicine	250.0	-
Urbana-Champaign Total:	\$ 825.0	\$1,175.0
\$2,000.0		
<b>GENERAL UNIVERSITY</b>		
State/University Liaison Program	-	\$ 45.0
Public Service Programming in Region 2	\$ 135.0	-
Gerontology Center	-	50.0
General University Total:	\$ 135.0	\$ 95.0
\$230.0		
<b>EXPANDED AND IMPROVED PROGRAM</b>		
REQUEST TOTAL . . . . .	<u>\$3,930.0</u>	<u>\$2,070.0</u>
<b>HIGH TECHNOLOGY EQUIPMENT REQUEST</b>	<u>\$2,500.0</u>	<u>\$2,500.0</u>
<b>LIBRARY COMPUTER SYSTEM . . . . .</b>	<u>\$ 365.0</u>	<u>          </u>
<b>GRAND TOTAL . . . . .</b>	<b>\$6,795.0</b>	<b>\$4,570.0</b>

CAMPUS AND LEVEL	Actual			Projected				
	FY 1979	FY 1980	FY 1981	FY 1982	FY 1983	FY 1984	FY 1985	FY 1986
<b>Chicago Circle</b>								
Lower Division	9,644	9,375	9,564	8,843	8,850	8,785	8,720	8,605
Upper Division	7,682	7,661	7,975	7,777	7,710	7,600	7,490	7,380
Total Undergraduate	17,326	17,036	17,539	16,620	16,560	16,385	16,210	15,985
GI	2,242	2,434	2,593	2,750	3,000	3,225	3,450	3,620
GII	773	815	869	940	950	1,000	1,050	1,105
Total Graduate	3,015	3,249	3,462	3,690	3,950	4,225	4,500	4,725
<b>Total - Chicago Circle</b>	<b>20,341</b>	<b>20,285</b>	<b>21,001</b>	<b>20,310</b>	<b>20,510</b>	<b>20,610</b>	<b>20,710</b>	<b>20,710</b>
<b>Medical Center</b>								
Lower Division	353	293	296	240	325	375	425	425
Upper Division	1,382	1,375	1,315	1,260	1,175	1,195	1,295	1,375
Total Undergraduate	1,735	1,668	1,611	1,500	1,500	1,570	1,720	1,800
Medicine	1,389	1,385	1,388	1,393	1,366	1,331	1,300	1,300
Dentistry	575	579	615	621	592	561	528	528
Dental Post Graduates	50	49	48	48	38	38	38	38
Pharm. D.	--	--	10	10	12	12	12	12
Total Professional	2,014	2,013	2,061	2,072	2,008	1,942	1,878	1,878
GI	481	556	520	532	559	589	589	594
GII	248	230	236	231	239	245	240	240
Total Graduate	729	786	756	763	798	834	829	834
Residents/Interns	452	456	483	483	483	483	483	483
Total (Excludes Resi- dents and Interns)	4,478	4,467	4,428	4,335	4,306	4,346	4,427	4,512
<b>Total - Medical Center</b>	<b>4,930</b>	<b>4,923</b>	<b>4,911</b>	<b>4,818</b>	<b>4,789</b>	<b>4,829</b>	<b>4,910</b>	<b>4,995</b>
<b>Urbana-Champaign</b>								
Lower Division	13,001	13,434	13,182	12,980	12,700	12,600	12,500	12,400
Upper Division	12,412	12,693	13,296	13,400	13,200	12,800	12,700	12,600
Total Undergraduate	25,413	26,127	26,478	26,380	25,900	25,400	25,200	25,000
Law	627	613	615	621	621	621	621	621
Veterinary Medicine	339	340	356	353	342	331	344	368
Total Professional	966	953	971	974	963	952	965	989
GI	3,417	3,373	3,497	3,500	3,500	3,500	3,500	3,500
GII	3,888	3,923	3,846	3,850	3,850	3,850	3,850	3,850
Total Graduate	7,305	7,296	7,343	7,350	7,350	7,350	7,350	7,350
<b>TOTAL</b>	<b>33,684</b>	<b>34,376</b>	<b>34,792</b>	<b>34,704</b>	<b>34,213</b>	<b>33,702</b>	<b>33,515</b>	<b>33,339</b>
<b>GRAND TOTAL</b>	<b>58,503</b>	<b>59,128</b>	<b>60,221</b>	<b>59,349</b>	<b>59,029</b>	<b>58,658</b>	<b>58,652</b>	<b>58,561</b>
University of Illinois (Excludes residents and Interns)								
<b>GRAND TOTAL</b>	<b>58,955</b>	<b>59,584</b>	<b>60,704</b>	<b>59,832</b>	<b>59,512</b>	<b>59,141</b>	<b>59,135</b>	<b>59,044</b>
University of Illinois								

appear that enrollments will continue to exceed 20,000. Current projections indicate that the mix of students at Circle will continue to change as they have in the past, as undergraduates decline and graduate enrollments grow. The Extended Day Program efforts continue to draw new students, and, at least for the next five years, Chicago Circle total enrollments are likely to remain virtually stable at a level above 20,000.

Medical Center enrollment data reported in Table 5 reflect a considerable difference from similar data reported last year. The Medical Center campus was by far the most severely hit by budget reductions in FY 1982, at both the State and national levels. The complete loss of Federal capitation and Area Health Education System (AHES) funds was coupled with an inability of the State to provide replacement funds which had been provided in the past, and the unavailability of funds to cover the fourth year of an expansion in dentistry enrollments. Since these funds were used for the direct support of instructional activities, there was no alternative but to reduce enrollments in a variety of programs. Although final plans have not been completed for the regional location of all students, overall enrollment levels can be projected.

Total enrollments for the Medical Center, excluding residents and interns, are now projected to be roughly 300 below the levels projected one year ago. Enrollments in medicine will drop by nearly 100 over the next four years, and those in dentistry will also decline by almost 100 over the next three years. A variety of other changes will take place at both the undergraduate and graduate levels, with a net reduction of approximately 75-100 students over the next five years.

Enrollment pressure continues to be very strong at the Urbana-Champaign campus, with a total headcount in FY 1981 some 650 higher than projected a year ago. For some time the campus has planned to reduce enrollments gradually to a level of 25,000 undergraduates and 7,350 graduate students. These plans continue, and it is expected that

graduate enrollments will reach the "steady state" level in FY 1982, while the undergraduate level will not reach 25,000 until FY 1986. Overall enrollment levels are projected to drop by about 1,300 students over the next five years.

It remains extremely clear that there is a high demand for enrollment at Urbana-Champaign, and that demand is expected to remain strong for the foreseeable future. Given so uncertain an economic climate and the likelihood of limited funding, it appears that the campus will be forced to reduce enrollments, even in the face of such a high demand. Enrollments in specific colleges or curricula, such as Veterinary Medicine and Engineering, will very likely have to be reduced below current levels, despite some of the very heaviest pressures for increases. Increases in these areas must be accompanied by funding increases if the quality of the academic programs they provide is to be maintained.

CAPITAL BUDGET REQUEST  
FY 1983

The FY 1983 Capital Budget Request is comprised of several components: Regular Capital Improvements, Energy Conservation/Fuel Conversion, Special Facilities, and Food for Century III. The Regular Capital Improvements component consists of those projects necessary to support the University's ongoing programmatic activities. The Energy Conservation/Fuel Conversion component is a group of projects designed to control growing utilities expenditures. Special Facilities projects are discussed in a separate segment due to the unusual circumstances regarding their use and financing methods. Projects included in Food for Century III component comprise the initial year of a two year program designed to complete the "critical mass" of facilities needed to enhance the University's food production research capabilities. The Food for Century III program is discussed in detail in a separate budget document.

Regular Capital Request

The University's Regular Capital Budget Request for FY 1983 is \$20,836,000. This request contains projects designed to: (1) remodel and renovate facilities to accommodate changing academic programs, (2) maintain the structural integrity of existing facilities, (3) upgrade building systems, and (4) provide special purpose facilities which cannot be obtained through building renovation. A summary of the FY 1983 capital projects in priority order is presented in Table 6.

Major remodeling and planning for major remodeling projects are a primary focus for FY 1983. The remodeling projects have been designed to address changing programmatic needs or to improve the capabilities of building systems to provide a suitable environment for modern instruction. Two projects essential to implementing major remodeling improvements at the Chicago Circle Library are the top priorities in the FY 1983 Capital Budget Request.

TABLE 6  
UNIVERSITY OF ILLINOIS  
FY 1983 CAPITAL BUDGET REQUEST PRIORITY LIST

Priority Number	Campus	Project	Budget Category	Project Cost	Cumulative Total	Chicago Circle	Medical Center	Urbana- Champaign
1	CC	Library Improvements	PLAN	\$ 320,000	\$ 320,000	\$ 320,000		
2	CC	Relocate Office of Admissions & Records	REMD	1,150,700	1,470,700	1,470,700		
3	UC	English Building Renovation	REMD	2,720,000	4,190,700			\$2,720,000
4	MC	Pharmacy Building Remodeling	PLAN	347,000	4,537,700		\$ 347,000	
5	MC	Acquisition - Easter Seal Building	LAND	350,000	4,887,700		697,000	
6	MC	Hospital Addition Remodeling	REMD	2,796,000	7,683,700		3,493,000	
7	GU	Electrical Upgrade - Roosevelt Bldg.	REMD	533,100	8,216,800	2,003,800		
8	UC	Auditorium Remodeling	PLAN	100,000	8,316,800			2,820,000
9	CC	SR <sup>3</sup> - 1	REMD	714,300	9,031,100	2,718,100		
10	CC	SR <sup>3</sup> - 1 Equipment	EQUIP	224,800	9,255,900	2,942,900		
11	MC	SR <sup>3</sup> - 1	REMD	1,325,000	10,580,900		4,818,000	
12	UC	SR <sup>3</sup> - 1	REMD	2,774,700	13,355,600			5,594,700
13	UC	SR <sup>3</sup> - 1 Equipment	EQUIP	221,500	13,577,100			5,816,200
14	UC	Chemical Waste Storage Facility	BLDG	231,200	13,808,300			6,047,400
15	UC	Pilot Training Facility	BLDG	1,482,900	15,291,200			7,530,300
16	UC	Television Building Addition	PLAN	470,000	15,761,200			8,000,300
17	CC	SR <sup>3</sup> - II	REMD	960,000	16,721,200	3,902,900		
18	MC	SR <sup>3</sup> - II	REMD	1,391,000	18,112,200		6,209,000	
19	UC	SR <sup>3</sup> - II	REMD	2,570,800	20,683,000			10,571,100
20	UC	SR <sup>3</sup> - II Equipment	EQUIP	153,000	20,836,000			10,724,100

The University's highest priority capital project will permit development of the architectural and engineering specifications for renovating the Chicago Circle Library. Remodeling will occur on each floor with the first floor becoming the central location for basic public services - the circulation desk, reserve books, and current periodicals.

In order for the Library remodeling to begin in FY 1984, it will be necessary to move the Office of Admissions and Records from the Library in FY 1983. The Office will be relocated in Jefferson and Henry Halls following the completion of remodeling work, including the construction of an atrium connecting the two halls.

Examples of other high priority major remodeling projects include planning the air conditioning of the Pharmacy Building and remodeling the Hospital Addition at the Medical Center campus, continued remodeling of the English Building, planning the remodeling of the Auditorium at the Urbana-Champaign campus, and upgrading the electrical system of the Roosevelt Road Building at the Chicago Circle campus.

As in past years, the University is requesting Space Realignment, Renewal, and Replacement (SR<sup>3</sup>) projects for FY 1983. An important tenet of the SR<sup>3</sup> concept is that for a campus as a whole, minor remodeling work will be required on an annual basis to preserve the functional and structural integrity of campus buildings. Specific projects vary from year to year, but some remodeling and renovation must be accomplished each year. Although State funds were appropriated for a portion of the FY 1982 SR<sup>3</sup> requirements, the need for minor remodeling at each campus continues.

Although the University has emphasized remodeling projects for FY 1983, there are cases when it is not possible to meet physical facilities needs through remodeling. In two instances, the Pilot Training Facility and the Television Building Addition, the University is requesting to initiate replacement of facilities which have deteriorated beyond repair. Construction of a new Chemical Waste Storage Facility was selected over the option of remodeling an existing facility because hazardous waste activities require specific safety construction methods and an isolated site.



Acquisition of the Easter Seal Building to house the personnel services offices of both Chicago campuses proved an economic alternative for consolidating the offices in a single location. This acquisition is to be funded in part by the Medical Center Commission as well as funds requested by the University.

#### Energy Conservation and Fuel Conversion

The University's Energy Conservation/Fuel Conversion program received initial support from the State in FY 1981. Funds have been appropriated for the conversion of Abbott Power Plant to burn Illinois coal and for a number of smaller conservation projects. Once completed, these projects will benefit the University and the State by helping to control the rising cost of energy.

The FY 1983 request for Energy Conservation/Fuel Conversion projects contains essentially those projects identified in the FY 1982 request for which funding was deferred. The FY 1983 request consists of thirty energy conservation projects (\$9,148,500) and two fuel conversion projects (\$14,676,000). All energy conservation and fuel conversion projects have a payback period conservatively estimated at less than 10 years. Table 7 presents a summary of the FY 1983 energy conservation projects in priority order and Table 8 summarizes the FY 1983 Fuel Conversion request.

#### Special Facilities

Two projects compose the FY 1983 Special Facilities request. State law charges the Illinois Fire Services Institute to train fire services personnel throughout the State. The law also provides funds which may be

TABLE 7  
FY1983 ENERGY CONSERVATION  
PROJECT PRIORITY LIST

Priority	Campus	Project	Payback* (Years)	Project Cost	Cumulative Total	BTU's Saved/Yr (in millions)
1	MC	Modify Fan System - Dentistry Building	2.47	187,900	187,900	6,800.0
2	MC	Upgrade Fan System - Library	2.54	173,000	360,900	7,800.0
3	MC	Install Heat Recovery System - Biological Resources Lab	2.83	169,500	530,400	8,400.0
4	UC	Air Conditioning System Review	3.88	257,200	787,600	6,660.0
5	MC	Modify Fume Hood Exhaust System - Pharmacy Building	4.01	391,600	1,179,200	12,310.0
6	MC	Install Heat Recovery System - Ear & Eye Infirmary	4.22	306,700	1,485,900	10,200.0
7	UC	Domestic Hot Water Control - Two Buildings	4.23	14,800	1,500,700	752.8
8	CC	Install Air Volume System - Two Buildings	4.27	645,200	2,145,900	13,280.0
9	UC	Temperature Control Remodeling & Replacement - 12 Buildings	4.57	1,140,500	3,286,400	54,200.0
10	UC	Conversion to Central Fan System - Armory	4.85	81,400	3,367,800	3,652.0
11	UC	Reheat Systems Zone Control - 14 Buildings	5.01	414,200	3,782,000	17,949.4
12	UC	Install Air Curtains Above Entryways - Three Buildings	5.35	46,000	3,828,000	1,866.0
13	UC	Summer-Winter Ventilation Rate - Three Buildings	5.50	40,700	3,868,700	1,600.0
14	MC	Install Heat Recovery System - Dentistry Building	5.71	81,400	3,950,100	2,000.0
15	UC	Conversion to Zoned Ventilation - Arts/Design Building	6.07	194,700	4,144,800	6,986.0
16	UC	Radiation Zone Control - Seven Buildings	6.48	104,400	4,249,200	3,510.6
17	UC	Pipe Insulation - Electrical Engineering Building	6.59	33,600	4,282,800	1,111.0
18	UC	Reheat System Zone Control - 11 Buildings	6.66	282,000	4,564,800	9,206.0
19	UC	HVAC Retrofit - Two Buildings	6.67	453,100	5,017,900	14,770.0
20	MC	Modify Fan System - Nursing Building	6.74	374,400	5,392,300	7,500.0
21	UC	Domestic Hot Water Control - Four Buildings	7.12	24,200	5,416,500	740.2
22	UC	Steam Absorption Machine Control - Four Buildings	7.20	153,400	5,569,900	4,624.0
23	UC	Domestic Hot Water Control - Seven Buildings	7.35	62,500	5,632,400	1,857.9
24	UC	Radiation Zone Control - 28 Buildings	7.40	524,500	6,156,900	15,405.8
25	UC	Reheat Systems Zone Control - Four Buildings	8.59	145,100	6,302,000	3,672.9
26	UC	Animal Room Ventilation - Three Buildings	8.90	379,400	6,681,400	9,290.0
27	UC	Animal Room Ventilation Improvements - Three Buildings	9.19	890,500	7,571,900	21,066.7
28	UC	Radiation Zone Control - 28 Buildings	9.55	589,400	8,161,300	13,403.0
29	MC	Convert to Hot Water - Pharmacy Building	9.73	603,400	8,764,700	8,700.0
30	MC	Rehabilitate Radiator System - 1919 West Taylor Street	9.97	383,800	9,148,500	5,400.0

\*Payback calculated per IBHE Instructions.

TABLE 8  
FY 1983 FUEL CONVERSION PROJECTS  
PRIORITY LIST

<u>Priority</u>	<u>Campus</u>	<u>Project</u>	<u>Project Cost</u>
1	MC	Convert Boilers to Coal Burning	\$9,643,200
2	CC	Interconnect Two Chicago Power Plants	\$5,032,800

used for construction of an adequate teaching and training facility. Capital projects related to fire services instruction have been detailed in a master plan and are proposed for funding in FY 1983.

The second special facilities project addresses the need of the Urbana-Champaign Campus Police to be housed in facilities better suited to public safety activities. The purchase of an appropriate facility will be included in the FY 1983 Capital Budget Request as a noninstructional capital improvement.

PART II

FISCAL YEAR 1983 OPERATING BUDGET REQUEST

## INTRODUCTION

Table 9 presents an historical summary of the Board of Trustees Operating Budget Requests from FY 1975 through FY 1982. As discussed in detail in Part I of this document, new resources were severely limited in FY 1982. While the 8.0 percent increase in funding is lower than increases received in the past three years, it remains significantly above the increases received by nearly all State agencies and departments, and it represents continued strong support of the University of Illinois by the General Assembly and the Governor. The three years prior to FY 1982 showed strong increases in overall funding support for the University, and the favorable treatment the University received relative to other agencies and departments requiring State support indicates that both the General Assembly and the Governor have been willing to give high priority to the support of higher education. Clearly, the task for FY 1983 is to make certain that the basis for that support continues to be as firm as possible, in the face of even more severely constrained resource availability.

The FY 1983 Operating Budget Request is presented in three major sections: Continuing Components; Programmatic Components; and Special Services/Funding Components. Table 10 displays the full FY 1983 Incremental Operating Budget Request, outlined by major category. Table 11 identifies the individual programmatic and special/services funding request for each campus.

In addition to the three major sections for the operating budget request, three appendices are included. Appendix I presents a brief discussion of the possible use of funds which in the past have been required to meet debt retirement for the Illinois Building Authority (IBA), but which will become available for other uses as the IBA debt is retired. Appendix II presents the FY 1983 request for Retirement funding. Appendix III includes the budget bases and calculations for the continuing components.

TABLE 9  
University of Illinois  
History of the Operating Budget Action FY 1975 - 1982  
(Dollars in Thousands)

	(1) Previous Year's Base <sup>1</sup>	(2) University Request	(3) IBHE Rec.	(4) Allocation of Gov. Budget	(5) Legislative Action	(6) Governor's Action	(7) Final	(7 ÷ 1) % Final of Previous Base	(7 ÷ 2) % Final Of System Request
FY 1975	\$198,381.5	\$22,800.2	\$16,743.0	--	\$27,523.0	\$20,043.0	\$20,043.1	10.1%	87.9%
FY 1976	218,424.5	32,343.5	23,899.4	--	29,375.8	16,950.7	16,950.7	7.8	52.4
FY 1977	235,375.5	26,780.3	21,233.3	\$10,064.5	15,950.7	10,172.5	14,644.3	6.2	54.7
FY 1978	250,019.4	31,036.0	23,305.4	16,551.6	17,423.0	15,906.3	15,906.3	6.4	51.3
FY 1979	265,925.8	34,106.6	26,415.5	24,568.1	24,799.6	24,755.6	24,755.6	9.3	72.6
FY 1980	290,681.4	37,473.3	28,320.4	27,550.8	31,279.3	31,279.3	32,188.6 <sup>2</sup>	11.1 <sup>2</sup>	85.9
FY 1981	321,158.3 <sup>3</sup>	41,086.4 <sup>4</sup>	33,830.6	32,391.9	34,688.3	32,391.9	32,391.9	10.1	78.8
FY 1982	353,550.3	47,995.7	41,307.8	28,164.6 <sup>5</sup>	28,164.6	28,164.6	28,334.6 <sup>6</sup>	8.0	59.0

<sup>1</sup>Excludes Retirement and IBA

<sup>2</sup>Includes non-recurring funds of \$401.00 for flood damages and \$508.3 for Division of Services for Crippled Children override; percentage without these funds is 10.8

<sup>3</sup>Excludes non-recurring funds of \$401.0 flood damage, \$508.3 DSCC override. FY 1981 funding no longer includes an appropriation of \$802.4 for Refunds

<sup>4</sup>BOT printed request of \$40,445.4 plus DSCC price and salary increaes of \$641.0

<sup>5</sup>Represents amount in Governor's Revised Budget. Governor's original recommendation was \$28,563.3

<sup>6</sup> Includes an additional \$170.0 appropriated to the University from Real Estate Research and Education Fund in HB 774

Table 10  
FY 1983 Operating Budget Request  
(Dollars in Thousands)

I. Continuing Components		
A. Compensation Increases		\$28,426.4
1. Annualization	\$ 6,177.3	
2. Regular Increase - 8%	19,347.0	
3. Catch-Up - 2%*	2,902.1	
B. General Price Increase - 8.5%		3,894.4
C. Utilities Price Increase - 18%		5,024.3
D. Library Price Increase - 20%		1,074.7
E. O & M New Areas		2,484.9
F. Worker's Compensation		<u>81.8</u>
Subtotal, Continuing Components		\$40,986.5
% of FY 1982 Base**		10.73%
II. Programmatic Components		
A. Expanded/Improved Programs		\$ 3,930.0
B. Library Computer System		365.0
C. High Technology Equipment		<u>2,500.0</u>
Subtotal, Programmatic Components		\$ 6,795.0
% of FY 1982 Base		1.78%
III. Special Services/Funding		
A. County Board Matching		\$ 427.0
B. Cooperative Extension Service		391.0
C. Fire Service Institute		105.0
D. Office of Real Estate Research		<u>29.0</u>
Subtotal, Special Services/Funding		\$ 952.0
% of FY 1982 Base		.25%
IV. Total Budget Request		\$48,733.5
% of FY 1982 Base		12.76%

\*2% catch-up funding effective mid-year, FY 1983.

\*\*FY 1982 Base = 381,884.8 excluding Retirement and IBA Rentals.



TABLE 11  
FY 1983 EXPANDED AND IMPROVED PROGRAMS  
(Dollars in Thousands)

<u>Campus/Program</u>	<u>Enhancement of Academic Programs</u>	<u>Revitalization of Science and Technology</u>
<b>CHICAGO CIRCLE</b>		
Extended Day	\$ 140.0	-
High Demand/Day & Evening Programs	195.0	\$ 225.0
Graduate Student Support	40.0	-
Urban Transportation Center	-	100.0
Undergraduate Instructional Labs	-	100.0
Chicago Circle Total:	\$ 375.0	\$ 425.0
\$800.0		
<b>MEDICAL CENTER</b>		
Regional Development Program for Nursing Education	\$ 325.0	-
Interdisciplinary Studies in the Basic Medical Sciences	-	\$ 375.0
Clinical Education in the Colleges of Nursing & Pharmacy	200.0	-
Medical Center Total:	\$ 525.0	\$ 375.0
\$900.0		
<b>URBANA-CHAMPAIGN</b>		
Response to Changing Student Demand	\$ 195.0	\$ 645.0
Graduate Student Support	250.0	-
Interdisciplinary Research & Extension Program to Improve Surface Water Quality in Rural Areas	-	100.0
A Program of Fundamental Engineering Research Directed to Illinois Industry	-	150.0
Graduate Research Board	-	280.0
College of Law	130.0	-
College of Veterinary Medicine	250.0	-
Urbana-Champaign Total:	\$ 825.0	\$1,175.0
\$2,000.0		
<b>GENERAL UNIVERSITY</b>		
State/University Liaison Program	-	\$ 45.0
Public Service Programming in Region 2	\$ 135.0	-
Gerontology Center	-	50.0
General University Total:	\$ 135.0	\$ 95.0
\$230.0		
<b>EXPANDED AND IMPROVED PROGRAM</b>		
REQUEST TOTAL . . . . .	<u>\$3,930.0</u>	<u>\$2,070.0</u>
<b>HIGH TECHNOLOGY EQUIPMENT REQUEST</b>	<u>\$2,500.0</u>	<u>\$2,500.0</u>
<b>LIBRARY COMPUTER SYSTEM . . . . .</b>	<u>\$ 365.0</u>	
<b>GRAND TOTAL . . . . .</b>	<u>\$6,795.0</u>	<u>\$4,570.0</u>

## CONTINUING COMPONENTS

The incremental items requested in this category are those which are essential to the ongoing operation of current academic and support programs. Funds sought for the Continuing Components would not allow for the expansion of programs. The following individual requests are included within the Continuing Components: 1) compensation improvement for continuing faculty and staff; 2) price increases for goods and services; 3) operation and maintenance support for new areas; and 4) worker's compensation.

COMPENSATION IMPROVEMENT  
(\$28,426,400)

Faculty Compensation

Each year the University completes a variety of salary and compensation comparisons to assess its competitive standing among appropriate peer groups. These studies provide useful information for determining the University's ability to attract and retain qualified faculty and staff. For academic staff members, salary and compensation are ranked within the Big Ten; for nonacademic staff, comparisons are made with equivalent employee groups outside the University.

Since 1978, the University has attempted to achieve the dual goals of reaching at least a third place ranking for faculty compensation within the Big Ten and attaining competitive salary levels for nonacademic employees relative to external employment markets. While these goals have yet to be attained, the General Assembly and Governor have recognized the importance of maintaining a competitive position and have provided annual funding increases serving to improve overall compensation levels. Lower paid Civil Service employees obtained special salary increments in addition to regular increases in FY 1978 and FY 1979. During FY 1979, the University's overall salary increases topped the Big Ten. For FY 1980 the University obtained sufficient funding to grant salary increases approximately equal to the average salary increases of the Big Ten institutions. For FY 1981, a reallocation of funds was necessary to enable the University to approximate the Big Ten average and to prevent a loss of ground in the salary rankings.

More recently, the 10 percent increase granted for FY 1982 exceeds the estimated 8.2 percent average salary increments provided by other Big Ten institutions (Table 12). This 8 percent salary increase plus 2 percent compensation catch up package will improve the University's relative position in average cash salaries. In FY 1978, the University of Illinois ranked fifth among the Big Ten in average cash salary. The results of the FY 1981 Cash Salary Analysis (Table 13) indicate that the University has improved its ranking to fourth place and preliminary data obtained for FY 1982 indicate that the University may in fact move to third place in cash salaries this year.

TABLE 12  
ESTIMATED FY 1982 SALARY INCREASES  
AT BIG TEN INSTITUTIONS

<u>Institution</u>	<u>Estimated Salary Increase</u>
Illinois	10.0%
S	7.5%
Y	10.0%
O	7.0%
P	8.5%
C	9.0%
I	8.0%
D	6.0%
B	8.0%
X	10.0%
Average	8.4%
Average Excluding Illinois	8.2%

TABLE 13  
RANKINGS OF AVERAGE CASH SALARY  
UNIVERSITY OF ILLINOIS COMPARED TO ALL BIG TEN INSTITUTIONS  
ALL RANKS COMBINED AND WEIGHTED TO THE  
UNIVERSITY OF ILLINOIS DISTRIBUTION

<u>Institution</u>	<u>FY 80 Weighted Average Cash Salary</u>	<u>Rank</u>	<u>FY 81 Weighted Average Cash Salary</u>	<u>Rank</u>	<u>Percent Change</u>	<u>Rank</u>
L (Illinois)	25,181	4	27,592	4	9.57	7
S	22,880	10	25,466	10	11.30	3
Y	24,972	5	27,210	5	8.96	8
O	26,694	1	29,314	2	9.81	6
P	23,660	9	26,198	8	10.73	4
C	24,681	6	26,491	7	7.33	10
I	25,479	3	28,012	3	9.94	5
D	23,989	8	27,095	6	12.95	2
B	24,114	7	26,156	9	8.47	9
X	25,895	2	29,432	1	13.66	1
Mean Less Illinois	24,707		27,264		10.35	
Mean Big Ten	24,754		27,297		10.27	

Each year's data includes total institution's full-time faculty, excluding clinical departments, whose primary responsibilities are teaching, research or public service. All salaries are reported on a nine month basis, using 0.8182 to convert Fiscal Year appointments. Each institution's salaries have been weighted to the University of Illinois distribution of faculty between 9 and 11 month appointments and by rank.

"Compensation" includes average cash salary plus employer contributions to fringe benefit plans. In FY 1978, the University ranked in ninth place in overall compensation among the Big Ten. The results of the FY 1981 compensation comparison indicate that the University moved into eighth place in the Big Ten (Table 14). It appears that the University will continue to improve its ranking in FY 1982, possibly achieving seventh place. It also appears that the gap between the University of Illinois and the third ranking institution--which stood at \$1,660 or 5.2 percent of the University of Illinois average compensation in FY 1981--is likely to be substantially reduced in FY 1982 by perhaps as much as one-half. Final compensation data for FY 1982 will not be available for several months.

#### FY 1982 Increases for the University of Illinois

The University's FY 1982 compensation request of 10.8 percent, approved by the Board of Trustees, included a 9 percent salary increase component and a 1.8 percent compensation improvement component. The compensation improvement component represented the first installment of the total annual amount required to close the 5 percent gap between the University of Illinois and the third place Big Ten institution over a three-year period. The Board of Higher Education recommended an overall 10.5 percent increment, comprised of a 9 percent salary increase plus 1.5 percent for compensation improvements.

The final appropriation, as approved by the General Assembly and signed by the Governor, contained a 7.1 percent increase in the University's personal services base. In appropriating the 7.1 percent increment to fund a 10 percent salary increase, the Governor and legislature stipulated that this represented an 8 percent increase for the full fiscal year, plus a 2 percent "compensation catch up" component added during the last six months. Further, it was assumed that the University would contribute a portion of the additional funds required by improving "productivity" by an amount equal to 1 percent of the total personal services base. As noted earlier, significant reallocation measures were necessary in FY 1981 to maintain compensation levels which were competitive in the Big Ten. Therefore, due to the University's strong commitment

TABLE 14  
RANKINGS OF AVERAGE COMPENSATION  
UNIVERSITY OF ILLINOIS COMPARED TO ALL BIG TEN INSTITUTIONS  
ALL RANKS COMBINED AND WEIGHTED TO THE  
UNIVERSITY OF ILLINOIS DISTRIBUTION

<u>Institution</u>	<u>FY 80 Weighted Average Compensation</u>	<u>Rank</u>	<u>FY 81 Weighted Average Compensation</u>	<u>Rank</u>	<u>Percent Change</u>	<u>Rank</u>
L (Illinois)	29,111	8	31,871	8	9.48	8
S	28,035	10	31,399	10	12.00	3
Y	29,591	5	32,473	6	9.74	7
O	32,265	1	35,643	1	10.47	5
P	28,580	9	31,789	9	11.23	4
C	30,404	3	32,894	4	8.19	10
I	29,825	4	32,881	5	10.25	6
D	29,539	6	33,531	3	13.51	2
B	29,330	7	31,931	7	8.87	9
X	30,826	2	35,390	2	14.81	1
Mean Less Illinois	29,822		33,103		11.00	
Mean Big Ten	29,751		32,980		10.85	

Each year's data includes total institution's full-time faculty, excluding clinical departments, whose primary responsibilities are teaching, research or public service. All salaries are reported on a nine month basis, using 0.8182 to convert Fiscal Year appointments. Each institution's salaries have been weighted to the University of Illinois distribution of faculty between 9 and 11 month appointments and by rank.

to further improve compensation, staff reductions presented the only realistic alternative for achieving the productivity improvement required to reach a 10 percent increase level. For FY 1982, the University has implemented a plan to reduce its work force by approximately 1 percent overall.

#### Other Measures of Compensation

"Compensation" as used in prior analyses includes cash salaries plus employer (University/State) contributions to fringe benefit plans (retirement, health-life-survivor's insurance, and disability benefits). These benefit plans not only encompass such State and institutional programs as SURS and TIAA/CREF, but also include the Federal Social Security system, where applicable. In fact, all Big Ten universities with the exception of the University of Illinois and Ohio State University participate in Social Security as well as other (primarily TIAA/CREF) retirement programs.

Table 15 summarizes employer contributions and mandatory employee contributions to fringe benefits in fiscal 1981. The table demonstrates that the University's employer contributions are somewhat below (5.5 percent) those of other Big Ten institutions and that its employee contributions also lag, but by a lesser amount (1 percent). The major cause of these differences relates to the fact that, as noted, most of the other institutions have dual (Social Security and institutional) retirement programs. If one assumes that the Social Security system (and other State/private retirement systems) will remain financially viable in the long run, then those institutions that have larger employer/employee contributions to fringe benefits, as noted in Table 15, will also have larger benefits. The issues concerning the relative viability of Federal, State, local, and private pension systems have been well reported and need not be repeated herein.

The issues raised with respect to the validity of comparing compensation (salary plus employer contribution to fringe benefits) are significant enough that they suggest the use of another comparative measure.



TABLE 15  
FY 1981 BIG TEN EMPLOYER AND EMPLOYEE CONTRIBUTIONS  
TO FRINGE BENEFITS

<u>Institution</u>	<u>Total Average Employer Contribution To Fringe Benefits</u>	<u>Total Average Employee Contribution To Fringe Benefits</u>	<u>Employee Contribution To Social Security</u>	<u>Employee Contribution To Retirement</u>	<u>Employee Contribution To Health Insurance</u>
L (Illinois)	\$4,279 (15.5%)	\$2,207 (8.0%)	-0-	8.0%	-0-
S	\$5,933 (23.3%)	\$1,836 (7.2%)	6.65%*	-0-	\$250 annual
Y	\$5,263 (19.3%)	\$2,972 (10.9%)	6.65%	3.33% 1st \$2,400 5.00% all above	-0-
O	\$6,329 (21.6%)	\$3,160 (10.8%)	6.65%	5.0%	-0-
P	\$5,591 (21.3%)	\$2,944 (11.2%)	6.65%	5.0%	-0-
C	\$6,403 (24.2%)	\$2,293 (8.7%)	6.65%	2.50% 1st \$5,000 2.50% all above	-0-
I	\$4,869 (12.8%)	\$2,381 (8.5%)	-0-	8.5%	-0-
D	\$6,436 (23.8%)	\$1,637 (6.0%)	6.65%	-0-	-0-
B	\$5,775 (22.1%)	\$1,940 (7.4%)	6.65%	1.0%	\$55 annual
X	\$5,958 (20.2%)	\$3,386 (11.5%)	6.65%	5.0%	\$180 annual
Mean Less Illinois	\$5,840 (21.0%)	\$2,505 (9.0%)			
Mean Big Ten	\$5,684 (20.4%)	\$2,476 (8.9%)			

\*Wage base for all Social Security contributions shown at 6.65% is limited to \$29,700.

Source: Social Security Administration; Survey of Big Ten Institutions

One such measure has been labeled "equated cash salary," which is cash salary minus mandatory employee contribution to fringe benefits. This measure might also be called take-home pay before taxes.

A summary of the University's absolute and relative standing in the Big Ten in FY 1981 on the three measures - equated cash salary, cash salary and compensation - is shown in Table 16. The University continues to fall below third place in the Big Ten in compensation by about 5 percent; again, a significant reason for this result is the increased percentage and maximum dollar contributions implemented in Social Security during the last few years while SURS has remained essentially constant.

However, the dollar gap to third place in equated cash and cash salaries is substantially less, ranging from 1 percent to 1.5 percent. If one focuses on equated cash salaries (Figure 3), it is clear that the University is among the top institutions and somewhat above the second group, and would be even more highly ranked if one adjusted for the anticipated tax sheltering of the 8 percent employee contribution to the retirement annuity (SURS).

A comparison of average faculty salaries is an important indicator of the relative ability of the University to compete in the faculty marketplace. However, faculty are attracted or lost for many other reasons: their academic colleagues, both other faculty and students; the quality of library, equipment and other resources; social, cultural and other aspects of the academic and local environment; and so on. Salary comparisons are further complicated by individual assessments of the value of long-run fringe benefits (compensation) versus immediate take-home pay (equated cash salary). Furthermore, a comparison of average salaries, compensation or other indicators with those of other universities ignores the fact that the relevant market comparisons for many disciplines may be with commerce and industry, and not solely with other universities.

In summary, preliminary data indicates that the University will make some progress in FY 1982 towards achieving its goal of attaining at least third place standing in faculty compensation among the Big Ten universities. Similarly, its position in terms of cash and equated cash salaries, which may be of equal importance during this period of high inflation, is also expected to improve.

TABLE 16  
RANKINGS OF AVERAGE EQUATED CASH SALARY,  
AVERAGE CASH SALARY AND AVERAGE COMPENSATION  
FY 1981  
UNIVERSITY OF ILLINOIS COMPARED TO ALL BIG TEN INSTITUTIONS\*

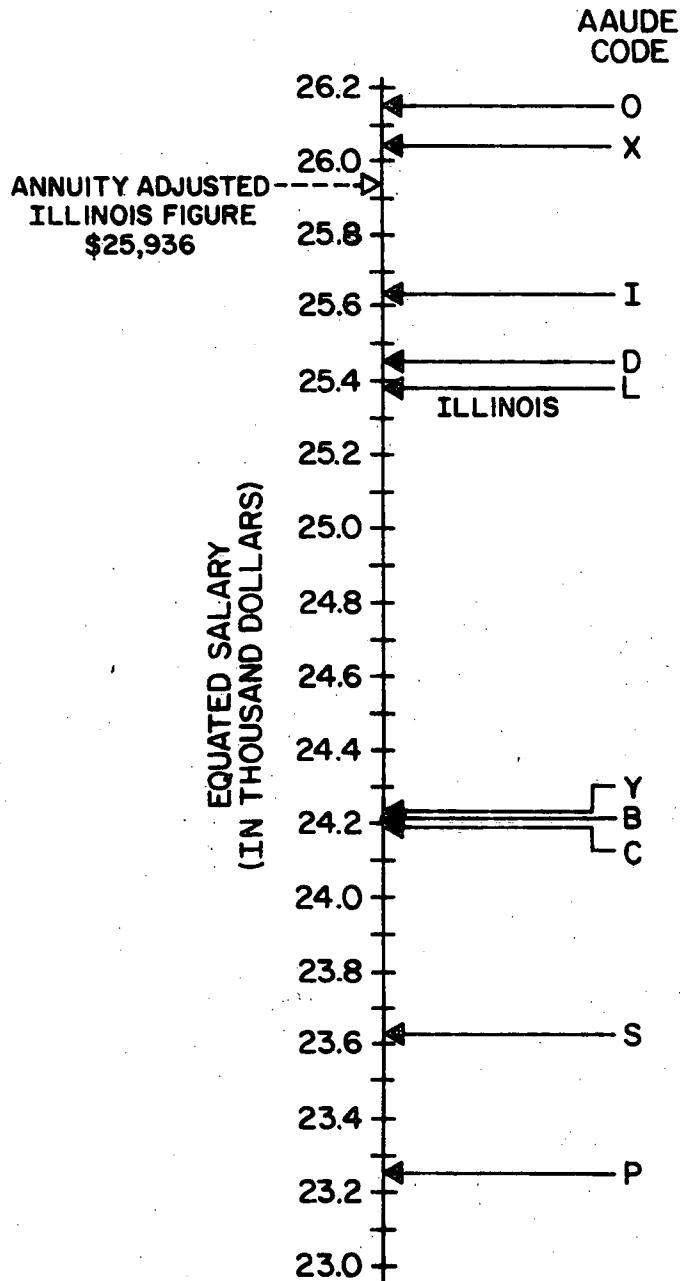
<u>Institution</u>	<u>FY 1981 Average Equated Cash Salary</u>	<u>Rank</u>	<u>FY 1981 Average Cash Salary</u>	<u>Rank</u>	<u>FY 1981 Average Compensation</u>	<u>Rank</u>
L (Illinois)	\$25,385	5	\$27,592	4	\$31,871	8
S	23,630	9	25,466	10	31,399	10
Y	24,238	6	27,210	5	32,473	6
O	26,154	1	29,314	2	35,643	1
P	23,254	10	26,198	8	31,789	9
C	24,198	8	26,491	7	32,894	4
I	25,631	3	28,012	3	32,881	5
D	25,458	4	27,095	6	33,531	3
B	24,216	7	26,156	9	31,931	7
X	26,046	2	29,432	1	35,390	2
Mean Less Illinois	\$24,758		\$27,264		\$33,103	
Mean Big Ten	\$24,821		\$27,297		\$32,980	
<u>Dollar Gap to Third Place</u>	<u>\$246 (1%)</u>		<u>\$420 (1.5%)</u>		<u>\$1,660 (5.2%)</u>	

\*Each year's data includes total institution's full-time faculty, excluding clinical departments, whose primary responsibilities are teaching, research or public service. All salaries are reported on a nine-month basis, using 0.8182 to convert Fiscal Year appointments. Each institution's salaries have been weighted to the University of Illinois distribution of faculty between 9 and 11 month appointments and by rank.

Source: FY 1981 Minnesota Salary Survey

FIGURE 3

# RANKINGS OF AVERAGE EQUATED CASH SALARY BIG TEN INSTITUTIONS FY 1981



The University's commitment to the goal of achieving at least third place among Big Ten institutions in compensation remains strong. It is clear that if continued progress toward that goal is to be made in FY 1983, an increase of 8 percent will be necessary to match increases at other Big Ten institutions. A 2 percent catch up component would likely match the progress achieved in FY 1982 toward reducing the compensation gap of 5.2 percent. To minimize the impact of funding an overall increase of this magnitude, it is proposed to make the 2 percent catch up increment effective in January as was done for FY 1982.

#### Nonacademic Salary Comparisons

For nonacademic employees, annual salary comparisons are normally made with employers outside the University who are most directly competitive for the services of the nonacademic staff. In some cases, comparisons are made with local employers; in other cases, broader comparisons are made if the market for particular employee skills is statewide or greater. The composite survey of the market, which compares the salary range midpoints for University of Illinois Step Plan grades and market midpoints for comparable employment levels, is currently in the process of being restructured. However, the results of previous surveys indicate the average percent change of the market over the past year approximates 9 percent.

The data in the table below compares selected University of Illinois grade midpoints with estimated market midpoints:

<u>Grade/ Location</u>	<u>UI FY 1981 Midpoint*</u>	<u>Projected Market As Of 9/1/81</u>	<u>UI FY 1982 Dec. Midpoint*</u>	<u>% Behind Market</u>
5 Chicago	\$ 9,006	\$10,025	\$ 9,590	4.5%
5 Urbana	8,321	9,600	8,861	8.3%
14 (both)	13,375	15,375	14,243	8.7%
19 (both)	17,296	20,175	18,418	9.5%
33 (both)	35,774	42,400	38,063	11.4%

\*The University of Illinois data do not represent actual average salaries of employees within pay grades. Actual salaries are substantially lower.

FY 1982 Increases for the University of Illinois

The FY 1982 range midpoints for the University of Illinois have been adjusted upward by 6.5 percent. This adjustment reflects the 4.4 percent "market movement" adjustment effective August 30, 1981, as well as the additional 2 percent "market movement" adjustment that is to be effective December 6, 1981.

In addition to the market movement increases received by all employees approximately 85 percent of the Step Plan employees will receive an additional 4 percent step increase on their anniversary dates of employment. This combination will result in an actual average salary increase for continuing step plan employees of approximately 10 percent. As in the case of faculty salary increases, incremental funds available are insufficient to fully fund the 10 percent rate increase. To fund the cash difference, campus resources, including a reduction in the number of positions filled, will be utilized.

State of Illinois Code Department Comparisons

In addition to market comparisons among competing employers, salary comparisons between nonacademic employees and State of Illinois Code Departments are reviewed annually to gain a general impression of relative equity among University of Illinois employees and their counterparts in State government. Based upon data compiled by the Illinois Board of Regents, the following comparison can be made:

Salary Deficiencies Between University of Illinois  
Nonacademic Employees and State of Illinois  
Code Department Employees, FY 1977-1981

	<u>Fall 1976</u>	<u>Fall 1977</u>	<u>Fall 1978</u>	<u>Fall 1979</u>	<u>Fall 1980</u>
Chicago Circle	-10.57%	- 4.28%	- 4.47%	- 4.93%	- 5.09%
Medical Center	- 7.14%	- 1.29%	- 2.94%	- 4.63%	- 2.69%
Urbana-Champaign	-24.42%	-17.40%	-15.71%	-18.76%	-20.41%

These comparisons make no attempt to adjust salaries for regional differences in cost of living, nor for regional differences in market competition. Thus, they are most useful to gauge changes over time, rather than absolute differences in any one year. Significant improvements can be seen from the fall of 1976 to the fall of 1977 when special funds were made available for lower paid employees. A slight erosion of that improvement is also obvious in later years, emphasizing the need for additional progress in FY 1983.

The University's total compensation request of 8 percent plus 2 percent requires an increment of \$28,426,400. Of this amount, \$6,177,300 is needed to annualize increases granted in FY 1982, \$19,347,000 is required to fund the 8 percent increase, and \$2,902,100 would be necessary to fund the 2 percent catch up amount beginning in January. Each of these components is calculated upon the University's FY 1982 personal services base. The calculations also use the customary 95 percent of base adjustment for employee turnover, rather than the 90 percent used in FY 1982, and are outlined in detail in Appendix III.

PRICE INCREASES

(\$9,993,400)

The University annually requests price increases for goods and services required for the basic operation of on-going academic and support programs. Price increase requests are based upon inflation projections, and, because of special circumstances producing unusual inflation experiences, differential price increase rates are sought for specific areas. The Illinois Board of Higher Education (IBHE) has, to some extent, supported the concept of providing differential increases where specialized needs have been demonstrated, such as utilities and library acquisitions.

For FY 1983, the University is following the practice of requesting differential price increases for two critical areas, utilities and library acquisitions, with a "general" price increase for all other goods and services. The experience of dramatic price increases in fossil fuels is universal, and the IBHE has supported a differential utilities increase since FY 1975. The need for such increases is no longer debatable; the primary concern has become one of projecting future increases with sufficient accuracy to avoid shortfalls. While capital-related energy conservation and fuel conversion projects will provide some relief from the severe impact of future utility increases, that relief will be minimal in FY 1983, since few projects will be online by that time.

The IBHE has varied in its support of differential price increases for library acquisitions, approving such increases in FY 1979 and 1980, but not in FY 1981 or 1982. As noted below, the University of Illinois libraries are sufficiently different from other libraries in Illinois to warrant special recognition of the severe price increase pressure on acquisitions. Such recognition is absolutely critical if the University is to maintain the current quality of its libraries, and their service not only to the University, but to other libraries throughout the State.



Estimates of inflation trends, plus reviews of past experiences have been used to determine minimum FY 1983 price increase requirements. Specific requests are as follow.

General Price Increases - \$3,894,400

For goods and services for which unusual price fluctuations are not anticipated, several cost-related indices have been examined. Most persons are familiar with the often cited Consumer Price Index (CPI) and the fact that its annual increase has been in double digits for the past several years. One major component of the CPI is fossil fuel sources, for which the University has received special increases. To determine how the University has fared in areas other than utilities, this component was removed from the CPI for the period FY 1976-1981, as displayed in Table 17 and pictured in Figure 4.

As can be seen, even when utilities are removed, price increase funds available to the University have lagged inflation by more than one-third (59.0 percent for inflation less utilities vs 38.9 percent for University Price increases). For FY 1982, the situation will be even more serious. Current projections from Chase Econometrics show an FY 1982 CPI estimate ranging from 9.2 to 9.6 percent while the University will have available only a 4.0 percent increase in funding. Obviously this will exacerbate an already substantial deficiency.

For FY 1983, Chase projections for the CPI currently range from 8.0 to 8.5 percent. Based upon these projections, and the growing impact of the deficiency in price increase funding over the past six years, a price increase rate of 8.5 percent has been established as the minimum request for FY 1983. An increase of this magnitude will barely match the projected FY 1983 increase.

Library Price Increases (\$1,074,700)

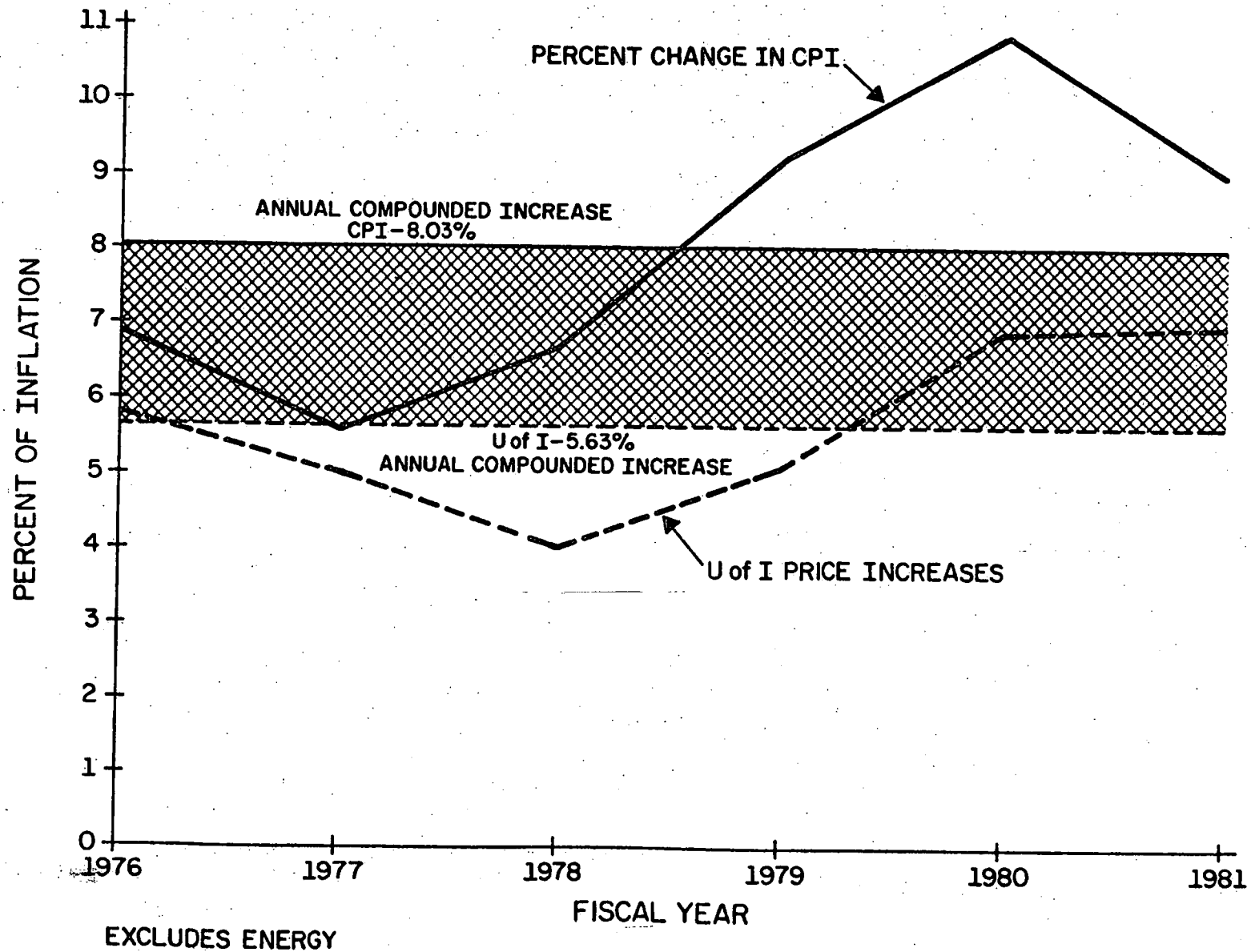
The University libraries provide absolutely essential support to the academic programs and research activities which take place on the campuses. For a major research institution such as the University of Illinois, library collections must contain a wide variety of materials and cover as many subject areas as required by the programs offered.

TABLE 17  
IMPACT OF INFLATION  
GENERAL EXPENSE ITEMS

<u>Fiscal Year</u>	<u>% Change in CPI Less Energy</u>	<u>vs</u>	<u>U of I Price Increases (Includes General Items and Library)</u>
FY 1976	6.9%		5.8%
FY 1977	5.6%		5.0%
FY 1978	6.7%		4.0%
FY 1979	9.2%		5.1%
FY 1980	10.9%		6.9%
FY 1981	9.0%		7.0%
Compounded FY 1976 - FY 1981	59.0%		38.9%

FIGURE 4

## IMPACT OF INFLATION



In addition, the Urbana-Champaign library is one of four Research and Reference Centers for the State, which places an even greater need on maintaining diverse and current collection of materials. Appropriate funding for acquisitions is essential if the University libraries are to maintain the quality of the collections which have been built-up over the past decades.

The decline in the value of the dollar spent on library acquisitions has been even more severe than that indicated by the general inflation rate, due in part to the unique composition of academic library collections. For example, the cost of imported materials, which represent approximately 40 percent of the total acquisitions budget at Urbana, increased by 15.7 percent in 1979. The problem is even more acute in serial purchases, which constitute the major portion of the acquisitions budget, and the cost of binding periodicals was estimated to increase by 24 percent in 1980.

If the University is to maintain a sufficient rate of library acquisitions to preserve its status as a major resource center for the State, a price increase of at least 20 percent is needed for FY 1983. This amount will permit the University to keep pace with projected increases in acquisition costs for FY 1983 and to recover at least some of the purchasing power lost in FY 1981 and 1982, when price increase funds were well below increases in acquisition costs.

#### Utilities Price Increases (\$5,024,300)

The direct utilities component of the University's annual operating budget request has increased dramatically over the past several years. Since FY 1974, the University's utilities needs have escalated 385 percent from \$6,358,000 to the FY 1981 amount of \$24,444,900. Likewise the proportion of the total State-funded budget being used for utilities has grown from 3.2 percent in FY 1971 to 7 percent in FY 1981. While dramatic, this is not surprising, however, in light of spiraling costs of fossil fuels which comprise the primary sources of heat, light, and power used by the campuses.

Utilities cost increases over the past two years have been particularly high. For example, the Chicago Circle campus experienced an 81 percent increase in the price of fuel oil, a 64 percent increase in the unit price of natural gas, and a 70 percent increase in the unit price of electricity from FY 1979 - FY 1981. Similar price trends also were experienced at the Medical Center campus. The Urbana-Champaign campus experienced a 71 percent increase in average fuel oil prices and a 56 percent increase in average prices of both natural gas and electricity over the same period.

In November of 1980, the University initiated measures to control utilities costs, with the fuel conversion project at the Abbott Power Plant. By converting Abbott's boilers from oil to natural gas firing, a serious potential budget shortfall was averted. The natural gas burned at Urbana-Champaign during FY 1980 was approximately one-half of the price per equivalent BTU of the fuel oil it displaced. Although both fuels have increased in price since the boiler conversion, the favorable price of natural gas continued for all of FY 1981. As a result, the Urbana-Champaign campus altered its boiler fuel mix from approximately 100 percent oil in FY 1979 to 90 percent gas and 10 percent oil in FY 1981. The campus plans to maintain the latter distribution of fuels for FY 1982 and FY 1983.

The Chicago campuses also altered their mix of boiler fuels in FY 1981 to increase their utilization of lower-priced fuels. For example, the Chicago Circle campus modified its FY 1979 usage of 96 percent oil and 4 percent natural gas to 46 percent oil and 54 percent natural gas in FY 1981. A similar action was taken at the Medical Center Steam Plant.

Although increased utilization of less costly fuels has helped control rapidly escalating utilities costs, it can only be viewed as a temporary solution. Natural gas, which currently is being substituted for higher priced fuels such as No. 2 and No. 6 fuel oil, is expected to increase significantly in price. In fact, when all Federal price controls have been eliminated, the price of natural gas will likely approach that of fuel oil.

The extreme volatility of fuel prices is expected to continue through 1983 due to 1) changes in Federal regulation, 2) the specific mix of fuel sources required by the University, and 3) local market conditions. No single economic index adequately reflects the University's utilities situation. The best current estimate of utilities requirements for FY 1983 indicates that increases of approximately 18 percent will be needed. It should be noted that the Abbott Power Plant conversion to coal and the possible conversion of the Medical Center Steam Plant to coal, along with the interconnection of the two Chicago power plants, will not take place in sufficient time to affect the FY 1983 operating budgets for utilities.

OPERATION AND MAINTENANCE FOR NEW AREAS  
(\$2,484,900)

This category includes incremental funds for operation and maintenance (O & M) costs associated with new space to be maintained by campus Operation and Maintenance Divisions. These costs vary, depending upon the type of space added and the nature of the activities conducted therein.

For FY 1983 a total of \$2,484,900 is requested as shown in Table 18 and described below. All projects are located at the Urbana-Champaign campus, with the exception of funds requested for the Easter Seal Building at the Medical Center campus.

Agricultural Engineering Sciences Building - \$156,500 is needed for three months of operations and maintenance support for the Agricultural Engineering Sciences Building. This building was funded as part of the Food for Century Three Program and will house the Department of Agricultural Engineering, the Wood Science Program in the Forestry Department, and the Food Engineering Program in the Department of Food Science. The facility contains 97,252 gross square feet and is estimated to require \$6.43 per gross square foot for operation and maintenance.

Costs for this facility have been estimated using current operation and maintenance costs experienced in similar existing campus facilities as guidelines. Due to the extensive research activities to be conducted in this building, utility costs per gross square foot exceed the campus average for all buildings. The building design dictated by programmatic requirements results in higher than average utility costs, also. Bay areas approximately 15 feet in height and several double garage doors large enough to allow access and egress of agricultural implements serve to increase utility usage over average campus levels.

Veterinary Medicine Basic Sciences Building - \$2,138,000 is requested for the operation and maintenance costs of this building. Occupancy of this building will complete the relocation of the College of

TABLE 18  
FY 1983 REQUESTS FOR OPERATION AND MAINTENANCE SUPPORT FOR NEW AREAS

<u>Building/Campus</u>	<u>Gross Square Feet</u>	<u>Total Unit Cost (\$/GSF)</u>	<u>Date of Occupancy</u>	<u>No. of Months Funding</u>	<u>Annual Cost</u>	<u>FY 1983 Amount</u>
Agricultural Engineering Sciences Building (UC)	97,252	\$6.43	April 1, 1983	3	\$ 625,800	\$ 156,500
Veterinary Medicine Basic Sciences Building (UC)	267,921	7.98	July 1, 1982	12	2,138,000	2,138,000
Diary Consolidation (UC)						
Feed Loading	1,344	2.57	July 1, 1982	12	3,450	3,450
Hay Storage	3,072	1.84	July 1, 1982	12	5,680	5,680
Large Heifer Rearing	4,608	2.34	July 1, 1982	12	10,770	10,770
Small Heifer Rearing	3,840	2.35	July 1, 1982	12	9,030	9,030
Shop and Storage	4,896	2.34	July 1, 1982	12	11,470	11,470
Police Services Facility (UC)	8,000	3.20	July 1, 1982	12	25,800	25,800
Veterinary Medicine Research Buildings 4, 5, and 6 (UC)	10,650	3.30	October 1, 1981	3	35,200	8,800
Swine Research Center (UC)	34,000	3.30	October 1, 1981	3	112,000	28,000
Swanlund Office Building (UC)	20,100	4.73	May 1, 1983	2	95,100	15,900
Easter Seal Building (MC)	18,000	3.97	July 1, 1982	12	71,500	71,500
TOTAL					\$3,143,800	\$2,484,900



Veterinary Medicine to the new south campus area and will allow the College of Agriculture to use space vacated by the College of Veterinary Medicine. In addition to housing two departments plus the college administration, the Veterinary Medicine Basic Sciences Building will also include the Veterinary Medicine Diagnostic Laboratory. The total gross square feet contained in this facility is 267,921 and the estimated cost per square foot for operation and maintenance is \$7.98.

Costs estimated for this facility exceed the average cost per gross square foot of other campus buildings for several reasons. First, the Veterinary Medicine Basic Sciences Building is a clinical facility, and as such must maintain a hospital standard of sanitation. This standard requires a five day per week, non-rotating cleaning schedule based on wet mopping methods using disinfecting agents and special equipment.

The facility will also support laboratory research involving pathological (bacterial and viral) agents, recombinant DNA, and toxic chemicals. Criteria set by the National Institute of Health and the National Cancer Institute demand a high level of sanitation. For the safety of personnel working in the facility, laboratories with potentially contaminated air have been equipped with a sophisticated filtration and ventilation system which needs a significant level of maintenance for efficient, safe operation.

The Veterinary Medicine Basic Sciences Building is required to operate under a system of rapid air exchange. Utility costs for heating or cooling are significantly higher than other campus buildings due to the replacement of heated or cooled air with outside air at an exchange rate twice that of average campus buildings. In order to estimate utility usage at this building, the usage standards of the Large and Small Animal Clinics were used to determine utility expenses. It should be noted that since the occupancy of the Veterinary Medicine Basic Sciences Building represents a doubling of square footage in the veterinary medicine complex, approximately five additional engineering personnel will be needed to operate the Veterinary Medicine Complex Boiler Plant.

Finally, as in any laboratory facility, complex, technological equipment must be well maintained to ascertain accurate experimental results. Due to the sophistication of the equipment used in the building, maintenance schedules for high technology equipment surpass the schedules used for standard laboratory equipment. The required accelerated maintenance schedule increases laboratory maintenance costs in this facility.

Dairy Consolidation - \$40,400 is needed to maintain five facilities that are included in the Food for Century Three Program. The new space added at the Lincoln Avenue Dairy, combined with the modernization of existing facilities, will consolidate all milking activities to a single location. The facilities total 17,760 gross square feet and will cost an average of \$2.27 per gross square foot to operate and maintain.

Police Services Facility - \$25,800 is necessary for the operation and maintenance of the Police Services Facility. All campus police functions will be located in this structure. The 8,000 gross square feet of the building will be maintained at a cost of \$3.20 per gross square foot.

Veterinary Medicine Research Buildings 4, 5, and 6 - \$8,800 is necessary to maintain these three new buildings, which are also a part of the Food for Century Three Program, for which construction funds were provided in FY 1980. This request is for the final three months of the first year of operation. Funding for a nine-month period was received in FY 1982. These are the final three of a total of six research structures at the Veterinary Research Farm for the study of food producing animals. One facility was in place when the Food for Century Three Program was begun. Construction funds for Buildings 2 and 3 were provided in FY 1978, and O & M funds for them were appropriated in FY 1980. This request will complete the funding for the structures. Together these three buildings total 10,650 gross square feet and require funding at \$3.30 per GSF.

Swine Research Center - \$28,000 is needed for operation and maintenance support of the Swine Research Center. Funding was received for a nine-month period in FY 1982. This request is for the three remaining months of the initial year of operation. The facility is a part of the Food for Century Three Program, for which construction funds were provided in FY 1980. The Research Center consists of several different facilities to be utilized to study nutrition, genetics, management, environmental hazards, and non-pathogenic ailments of swine. These facilities total 34,000 gross square feet and will require an O & M rate of \$3.30 per GSF.

Swanlund Campus Administrative Office Building - \$15,900 is needed for the building operations and maintenance costs over a two-month period. With the building's occupancy in May 1983, the majority of key campus administrative personnel, including the Chancellor, will be housed in one structure. The total gross square feet of the building is 20,100 and the cost per gross square foot is \$4.73.

Easter Seal Building - \$71,500 is requested for the annual operations and maintenance costs of this building. The building, located in the Medical Center District, will house the personnel services offices of both the Medical Center and Chicago Circle campuses, as well as the Office of Labor Relations and the Office of Organization Development of the Medical Center campus. Serving as the location of applicant screening and testing and the training and development center for the Chicago campuses, the facility will maintain a high degree of public visibility and use requiring considerable custodial and housekeeping services. The total gross square feet of the building is 18,000 and the operation and maintenance cost per gross square foot is \$3.97.

WORKER'S COMPENSATION  
(\$81,800)

Expenditures for Worker's Compensation costs have increased dramatically over the past six years, following a significant liberalization of benefits in 1976. Rising medical costs have also contributed to increasingly large individual Worker's Compensation claims. In addition, a growing number of cases have been referred to the Illinois Industrial Commission for settlement, delaying their final outcome for as long as two years. As a result, a backlog of cases has accumulated affecting the level of charges against subsequent appropriations.

The University of Illinois is unique among universities in Illinois and different from most State agencies in that the University receives a direct appropriation from which Worker's Compensation claims must be paid. For all other universities and other State agencies, employee claims are handled through the Illinois Department of Personnel. Thus, volatility in Worker's Compensation claims directly affects the University's budget, as shown in the following table:

(Dollars in Thousands)

	<u>Budget</u>	<u>Expenditures</u>	<u>% Change in Expenditures</u>
FY 1975	\$ 145.0	\$ 145.0	
FY 1976	180.0	214.7	48.1%
FY 1977	288.0	296.0	37.9%
FY 1978	360.0	490.0	65.5%
FY 1979	440.0	570.0	16.3%
FY 1980	590.0 (\$840.0)	840.0	47.3%
FY 1981	1,003.5	1,003.5 est.	19.5%
FY 1982	1,105.1	1,105.1 est.	10.1%

Despite significant increases in the annual budget for Worker's Compensation, expenditures out-paced the budget for five consecutive years.

With the settlement of several long-standing cases in FY 1980, a mid-year budget transfer of \$250,000 was required to meet total expenditures.

For the past two years the University has utilized the assistance of an actuarial firm in determining an appropriate funding level for Worker's Compensation. That level was reached in FY 1981, and it is now expected that the budget will be sufficient to meet annual expenditures. It is further expected that the annual increase in the Worker's Compensation budget will be the same as the increase in the total appropriated personal services base. For FY 1982, that increase was 7.4 percent. Applying that percentage increase to the Worker's Compensation base of \$1,105,100 results in an FY 1983 increase of \$81,800.

## Programmatic Components

### Introduction

It is axiomatic that social organizations must devote a portion of their resources towards learning, renewal and growth if they are to survive. In business and industry the resources so devoted and the activities they support generally are described as research and development (R & D) on processes and products. While universities conduct organized research with external funds and departmental research with institutional funds, they do not report a budget category that is comparable to industrial R & D. This does not mean that such activities do not occur; quite the contrary, the process of self examination, evaluation, and creative renewal are built into the University. Departments, colleges and campus administrations perform formal and informal program reviews and are subject to external accreditation studies. Faculty propose new degree programs, research centers and institutes as needs arise and opportunities present themselves. External parties submit requests for additional programs and services.

Many of these initiatives are implemented through the gradual reapplication of University resources, and do not surface as external budget requests. Some require temporary seed money, others permanent new funds to form a continuing budget base. Even when the University is maintaining a relatively constant size, a certain amount of incremental funding is needed to support program turnover, shifts in program emphases and a highly selected small number of new initiatives. It is not possible to place a precise dollar figure on these activities; however, the Academic Vice Chancellors and others on the University Planning Council have concluded that a desirable minimum amount is between two and three percent of the instructional budget. The program changes and additions selected for FY 1983 have costs which total about two percent - \$3.93 million, plus \$2.5 million for High Technology Equipment.

These programs are identified by campus in Table 19 and have been grouped into two major categories:

1. Revitalization of Science and Technology,
2. Enhancement of Academic Programs.

The individual programs which constitute these categories are discussed below.

Revitalization of Science and Technology. The nation's lagging productivity and increased international competition in highly technical areas have been reported widely. Industry's demand for engineers and other scientists has caused major undergraduate enrollment increases during the last several years. However, these increases have not led to corresponding increases in graduate enrollments, particularly at the doctoral level. The relative scarcity of technical Ph.D. graduates and the attractive salaries paid by business and industry make it difficult for the University to retain experienced faculty members or to add desperately needed young Assistant Professors. These professional market realities and the explosive growth in undergraduate enrollments has led all major universities to the same unattractive choice between capping or even reducing enrollments in the sciences and engineering or reducing the quality of these programs. The position of our Engineering and Science departments is that program quality must take precedence over enrollment maintenance. Hence, most of the funds that are requested to revitalize the sciences and technology (including those ear-marked for High Technology Equipment) are directed at the assurance of the quality of existing programs and the creation of new endeavors of high value to the University and the people.

The internal revitalization of the colleges and departments that relate to the sciences and technology will have important external implications as it assures high quality graduates and the conduct of important research. Some of the program requests -- Urban Transportation Center, Surface Water Quality, Fundamental Engineering Research for Illinois Industry, and State Government Liaison Program -- have a direct

TABLE 19  
FY 1983 EXPANDED AND IMPROVED PROGRAMS  
(Dollars in Thousands)

<u>Campus/Program</u>	<u>Enhancement of Academic Programs</u>	<u>Revitalization of Science and Technology</u>
CHICAGO CIRCLE		
Extended Day	\$ 140.0	-
High Demand/Day & Evening Programs	195.0	\$ 225.0
Graduate Student Support	40.0	-
Urban Transportation Center	-	100.0
Undergraduate Instructional Labs	-	100.0
Chicago Circle Total:	\$ 375.0	\$ 425.0
\$800.0		
MEDICAL CENTER		
Regional Development Program for Nursing Education	\$ 325.0	-
Interdisciplinary Studies in the Basic Medical Sciences	-	\$ 375.0
Clinical Education in the Colleges of Nursing & Pharmacy	200.0	-
Medical Center Total:	\$ 525.0	\$ 375.0
\$900.0		
URBANA-CHAMPAIGN		
Response to Changing Student Demand	\$ 195.0	\$ 645.0
Graduate Student Support	250.0	-
Interdisciplinary Research & Extension Program to Improve Surface Water Quality in Rural Areas	-	100.0
A Program of Fundamental Engineering Research Directed to Illinois Industry	-	150.0
Graduate Research Board	-	280.0
College of Law	130.0	-
College of Veterinary Medicine	250.0	-
Urbana-Champaign Total:	\$ 825.0	\$1,175.0
\$2,000.0		
GENERAL UNIVERSITY		
State/University Liaison Program	-	\$ 45.0
Public Service Programming in Region 2	\$ 135.0	-
Gerontology Center	-	50.0
General University Total:	\$ 135.0	\$ 95.0
\$230.0		
EXPANDED AND IMPROVED PROGRAM REQUEST TOTAL. . . . .	<u>\$3,930.0</u>	<u>\$2,070.0</u>
HIGH TECHNOLOGY EQUIPMENT REQUEST	<u>\$2,500.0</u>	<u>\$2,500.0</u>
LIBRARY COMPUTER SYSTEM . . . . .	<u>\$ 365.0</u>	
GRAND TOTAL. . . . .	<u>\$6,795.0</u>	<u>\$4,570.0</u>



impact on the revitalization of Illinois government and industry through application of the expertise and knowledge-base of the University to specific problem areas in the State.

Enhancement of Academic Programs. As important as the revitalization of science and technology is to the University, the State and the Nation, and even though new resources directed to that end relieve pressures on other programs, it is not the sole programmatic priority for Fiscal 1983. The Chicago Circle and Urbana-Champaign campuses need additional funds to respond to shifting student enrollment patterns (High Demand Instructional Programs), especially in Commerce and Business Administration. Continued growth of the Extended Day program will depend, in part, on more support for operations and maintenance, and especially for utilities, as the number of buildings and hours of operation increase. The Medical Center is continuing its program of regionalization in the College of Nursing and adding to the clinical components of the Nursing and Pharmacy curricula. Funds are needed to achieve better student-faculty ratios and to upgrade other aspects of the instruction in the Colleges of Law and Veterinary Medicine at Urbana-Champaign. The improvement in the funding of graduate fellowships made in fiscal 1982 should be continued so that the University can compete for the best of tomorrow's scholars and researchers. Finally, funds are requested to expand the University's outreach capability in Public Service Region 2. While these appear to be and are a relatively diverse set of programs, they have a common theme: enhancement of quality so that the students and the State may be better served.

CHICAGO CIRCLE

EXTENDED DAY  
(\$140,000)

The University of Illinois at Chicago Circle plans to continue to develop and expand Program P.M. in order to serve the large number of "non-traditional" students in the Chicago metropolitan area. One of the most challenging trends of the last few years for the public urban university has been to meet the needs of the non-traditional student by providing access to quality academic programs. The Extended Day program responds directly to students who desire undergraduate and graduate degree programs during the evening hours. The demand for evening programs is expected to continue to increase through the 1980's.

Since 1977 UICC has responded to the demands of the non-traditional student with the very successful Extended Day program. Information developed during the UICC planning process predicts stabilized enrollments over the next several years. However, greater numbers of students are anticipated in the graduate and evening programs. In order to continue to meet the needs of evening students, the campus proposes to expand Extended Day at the undergraduate and graduate level. This request for \$140,000 allows the University to meet the escalating demand for academic programs after 5:00 p.m.

The success of the Extended Day Program is evident in both the numbers and the types of students which it serves. In just four years, enrollment has grown to 3,245 Program P.M. students, with an additional 1,858 "shift" students who split their coursework between day and evening. Since Fall, 1978, the number of course registrations after 5:00 p.m. has increased by almost 20%.

The importance of Extended Day for older students, for women and for minority students is highlighted in Table 1, a comparison of the demographic characteristics for day and evening students in Fall, 1980. Women comprise almost 48% of the Program P.M. population compared with 44% of the day students. Almost half of all the graduate Hispanic students are enrolled in Extended Day, and this proportion increases to 65% for Black graduate students. More than 75% of the undergraduate students in Extended Day are 23 years old or older.

Although enrollment has increased very rapidly during the first four years, budgetary constraints and the need to maintain programmatic quality and balance for the day students have limited development of the Extended Day Program in several areas. Initially, emphasis was placed on the development of master's level programs, and, as shown in Table 1, more than half of the students are enrolled in graduate programs. Both Business Administration and Engineering, the two colleges faced with strong demand at undergraduate and graduate levels, have made substantial commitments to meet the demand for graduate work during evening hours, but neither college has been able to stretch scarce resources to support undergraduate degree programs after 5:00 p.m. Continued redeployment of campus resources from day to evening becomes increasingly difficult as the campus moves to expand the undergraduate programs in the evening. Not only are the high demand areas the same for the two time segments, but most evening students attend part-time and tend to progress at widely varying rates through their program. This results in smaller class sizes during the evening and the need for greater course duplication.

The proposed expansion of Extended Day is designed to increase enrollment in two ways: through the efficient use of additional resources for undergraduate programs, particularly in Business and Engineering, and through the development and expansion of graduate programs in high demand areas. The \$140,000 request covers the cost of opening additional classrooms to serve the projected growth in evening students in FY 1983 (See Table 2). More than half of the \$140,000 request is needed to cover utility costs for opening more classrooms. The additional funds are needed for maintenance of buildings, for snow removal in the evening during winter months, and for more security during the evening hours.

TABLE 1  
A COMPARISON OF DAY  
AND EVENING STUDENTS  
FALL 1980

	DAY						EVENING					
	UG		GRAD		TOTAL		UG		GRAD		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
<u>Number of Students</u>	15943	89.8	1813	10.2	17756	100.	1596	49.2	1649	50.8	3245	100.
<u>Sex</u>												
Male	9005	56.5	955	52.7	9960	56.1	907	56.8	796	48.3	1703	52.5
Female	6938	43.5	858	47.3	7796	43.9	689	43.2	853	51.7	1542	47.5
<u>Race/Ethnic</u>												
Asian	1336	8.4	240	13.2	1576	8.9	72	4.5	111	6.7	183	5.6
Black	2863	18.0	125	6.9	2988	16.8	361	22.6	237	14.4	598	18.4
Caucasian	9981	62.6	1325	73.1	11306	63.7	962	60.3	1206	73.1	2168	66.8
Hispanic	1427	9.0	55	3.0	1482	8.3	154	9.6	48	2.9	202	6.2
Native American	71	.4	7	.4	78	.4	9	.6	6	.4	15	.5
Unknown	265	1.7	61	3.4	326	1.8	38	2.4	41	2.5	79	2.4
<u>Age</u>												
Under 23	10906	68.4	100	5.5	11006	62.0	356	22.3	47	2.9	403	12.4
23 - 27	3403	21.3	710	39.2	4113	23.2	675	42.3	567	34.4	1242	38.3
28 - 32	1034	6.5	521	28.7	1555	8.8	342	21.4	527	32.0	869	26.8
Over 32	600	3.8	482	26.6	1082	6.1	223	14.0	508	30.8	731	22.5
Average Age	22.2		29.9		23.0		27.0		30.9		29.0	
<u>Residence</u>												
City of Chicago	11161	70.0	1076	59.4	12237	68.9	1157	72.5	962	58.3	2119	65.3
Non-Chicago	4782	30.0	737	40.6	5519	31.1	439	27.5	687	41.6	1126	34.7

TABLE 2  
HEADCOUNT ENROLLMENT IN EXTENDED DAY PROGRAMS  
(FALL QUARTER)

	<u>1977</u> (Actual)	<u>1979</u> (Actual)	<u>1981</u> (Anticipated)	<u>1982</u> (Projected)	<u>1984</u> (Projected)
Extended Day Students*	1803	3148	3700	4000	4600
Shift Students**	1008	1686	1800	2000	2400
Total EDS Participation	2811	4834	5500	6000	7000

\*Extended Day Students are defined as those students who take 50% or more of their coursework after 5:00 p.m.

\*\*Shift Students are those who enroll in both day and evening courses, with less than half their coursework after 5:00 p.m.

HIGH DEMAND - DAY AND EVENING PROGRAMS  
(\$420,000)

Several instructional programs at UICC are experiencing increasing budgetary problems which are directly related to enrollment growth at both the undergraduate and graduate levels. Student demand for programs in architecture, business and engineering has been increasing sharply for more than five years and may be expected to continue at very high levels throughout the 1980's. The record enrollment of 21,001 for Fall, 1980 also brought the highest undergraduate enrollments to date for both Business and Engineering. Art, Architecture and Urban Sciences has been forced to limit undergraduate enrollment to 1200 for the past six years due to budgetary constraints. Specifically, the School of Architecture has restricted enrollment to about 600 undergraduate students since 1976. The number of graduate students increased for all three Colleges between Fall 1979 and Fall, 1980, as indicated in Table 1. Engineering experienced the largest increase with a 30% jump in the number of graduate students. The major objective of this request is to provide additional resources for architecture, business, and engineering, which are attempting to respond to particularly strong trends in undergraduate and graduate demand during the day, while continuing to develop evening programs with equally strong demand.

College of Engineering - (\$150,000)

The College of Engineering has experienced extremely rapid enrollment growth since 1976. The number of undergraduate majors increased by 51.9%, and graduate enrollments by 113%. In addition, the student/faculty ratio is 82% higher than it was in 1976. There are now 19.3 students per FTE faculty.

No significant additions were made to the base budget of the College to support the growth from 1976 to 1979, primarily because the downturn in enrollments during the early 1970's had left the College with some excess capacity. In fall, 1979, however, undergraduate enrollment exceeded projections by almost 200 students, and funding support per FTE student dropped more than 11% below the level for 1976. In Fall, 1980 when the total number of majors (graduate and undergraduate) increased another 14.5%, the funding per FTE student fell 14.1% below the level for 1976, as displayed in Table 2.

The decline in FTE faculty since 1976, shown in Table 2, has been offset with increases in the number of graduate assistants. The College has been forced to rely on graduate assistants to an excessive degree, since they are faced with rapidly escalating salary levels for qualified faculty. The competition for qualified personnel with the private sector which is experiencing a shortage of engineers makes it very difficult to hire faculty. A significant reallocation was made for FY 1981 and the campus expects to continue the reallocation in FY 1982. Due to the high cost of engineering education, however, it does not appear possible to reallocate sufficient amounts from other areas to meet the resource requirements unless enrollments are severely restricted for several years.

This request for \$150,000 for FY 1982 would allow Engineering to meet the current demand for day and evening undergraduate programs, while continuing to expand its graduate programs. These funds, together with continued reallocation of campus resources, would provide 4.0 FTE faculty for the College. In addition, the funds would help provide much needed support staff and services. The College of Engineering has experienced a decline in the level of these funds since 1976 as well.

The long-term outlook for the College projects continued enrollment growth for the next five years. With these additional resources, the College can continue to meet the demand for quality graduate and undergraduate programs in the Chicago area.

#### School of Architecture - (\$75,000)

The School of Architecture is experiencing high demand for both graduate and undergraduate programs. Since 1976, the School has had to limit its undergraduate enrollment to approximately 600 students. During the same time period, the graduate program has grown from 1 to 100 students. The rapid development of the graduate program resulted in a 10.6% decline in the funds per FTE student which were available. In addition, the student/faculty ratio increased by 45%. The number of FTE faculty has remained about constant since 1976, as reflected in Table 2.

Although the Master's program was initiated in 1976, space and budget constraints have deferred implementation of all three options in this program.



Realignment of the space and internal reallocation of funds enabled Architecture to offer all the program options in 1981. Some highly qualified applicants for graduate study will probably be denied admission, however, due to limitations in faculty and support resources. This request for \$75,000 for the College of Architecture would provide an additional 3.0 FTE faculty and would increase enrollment in the graduate program by 20 to 25 students.

College of Business Administration - (\$195,000)

The enrollment demand in the College of Business has been increasing steadily since Fall, 1972, when there were 2,563 undergraduate majors, no graduate programs, and 1,641 FTE students. Between Fall, 1976 and Fall, 1980, undergraduate enrollments increased by 15.3%, while graduate enrollment more than tripled. Thus, the effects of changing demand are not fully reflected in the data in Table 1. The summary cost data in Table 2 reflects the changes in costs that were necessary to support the rapidly expanding graduate business program. Since 1976 the College has given highest priority to the development of the MBA program (primarily evening students).

The campus continues to respond to this changing demand through internal reallocation. In fall, 1980 the College of Business experienced a 12% increase in the number of undergraduates and an 11% increase in graduate enrollments from the previous fall. Although internal reallocation helped to absorb some of the costs of these increases, the College cannot be expected to continue to grow without additional resources.

The College of Business is proposing an effective response to meet the demand for business programs during day and evening hours. This request for \$195,000 allows Business to expand and enhance its academic programs at both the graduate and undergraduate level. The additional resources would provide 6.0 FTE faculty and a small increase in support services for the College. The funds would allow the College, for the first time, to effectively respond to the demand for undergraduate programs in the evening. In addition, Business can expand its accounting program at both the graduate and undergraduate level, in order to meet the increasing professional demands in this field.

National trends indicate that demand for business programs will continue to grow through the 1980's. This budget request would enable the College of Business to meet some of the demand for degree programs during the day and evening hours. With these additional resources, Business could serve approximately 200 new students and could provide them with high quality degree programs in an efficient and economical manner.

TABLE 1  
FALL TERM ENROLLMENT TRENDS\*

	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
College of Business					
Majors					
Undergraduate	2,719	3,065	2,744	2,789	3,136
Graduate	88	161	250	334	372
Total Majors	2,807	3,226	2,994	3,123	3,508
FTE Student Load	2,045	2,260	2,295	2,240	2,203
College of Engineering					
Majors					
Undergraduate	2,143	2,309	2,545	2,889	3,255
Graduate	228	283	396	377	485
Total Majors	2,371	2,592	2,941	3,266	3,740
FTE Student Load	913	1,043	1,219	1,268	1,461
School of Architecture					
Majors					
Undergraduate	551	557	625	572	590
Graduate	1	39	53	74	100
Total Majors	552	596	678	646	690
FTE Student Load	316	359	412	416	450

\*Figures taken from Resource/Performance Profile FY 1977-FY 1981.

TABLE 2  
SUMMARY COST DATA\*

	<u>1976-77</u>	<u>1980-81</u>	<u>% Change</u>
<u>College of Business</u>			
State Funds per FTE Student	\$ 936	\$1,421	+51.8%
FTE Faculty	77.4	90.5	+16.9%
Student/Faculty Ratio	26.4	24.3	- 8.0%
<u>College of Engineering</u>			
State Funds per FTE Student	\$2,765	\$2,376	-14.1%
FTE Faculty	86.15	75.74	-12.1%
Student/Faculty Ratio	10.6	19.3	+82.1%
<u>School of Architecture</u>			
State Funds per FTE Student	\$2,205	\$1,971	-10.6%
FTE Faculty	30.34	30.75	+ 1.4%
Student/Faculty Ratio	10.42	15.12	+45.1%

\*Based on Fall Quarter Enrollment.

GRADUATE STUDENT SUPPORT  
(\$40,000)

Graduate Fellowships - (\$40,000)

University of Illinois fellowship programs are designed to attract exceptional students and to provide them with the opportunity to concentrate their academic efforts on education. The quality of a graduate institution is in large measure determined by the quality of its students. With a strong fellowship program, the University can attract and retain the best graduate students thereby helping to create a stimulating intellectual environment benefiting the faculty and student body.

The Illinois State Scholarship Commission is a primary source of financial aid to undergraduate students throughout the state. However, this form of direct aid is not available to graduate students. The University therefore provides a variety of forms of financial support. It employs many of its graduate students as teaching and research assistants; it offers tuition and fee waivers to others. This campus offers instruction in many areas in the late afternoon and evening hours in order to allow students to combine study with full-time and part-time outside employment. Through the recent development of Program P.M., the University is now open to many who could not afford regular daytime study for financial or personal reasons.

All these forms of financial aid, however, have severe limitations. Teaching and research assistantships are available only in limited numbers and only in certain fields of study. While tuition and fee waivers may reduce the financial burden to an acceptable level for some, this kind of aid is not sufficient for many others. Evening programs and part-time study are certainly an answer for many students, but it often places such students at a greater disadvantage when compared with those who can afford full-time study. Part-time study, in many areas, particularly at the doctoral level, is only a poor substitute for a full immersion into the learning and research process. It is unfortunate that because of insufficient support, far too many of our brightest students have been forced to forego the benefits of a full-time, concentrated learning and research experience.

Additional funds granted in 1981-82 allowed the Graduate College to maintain the current 33 fellowships at an average of \$4,000. This request for \$40,000 for FY 1983 would increase the number of Graduate Fellowships from 33 to 43. When graduate programs first started in 1967, thirteen university fellowships were awarded at UICC. At that time, the ratio of graduate students to fellowships was 37.47 to 1. While the number of university fellowships has increased from 13 to 33, the graduate enrollment has increased from 434 to 3,462 in Fall, 1980. Thus, the ratio between graduate student and fellowships is now 105 to 1. If graduate enrollments increase to about 4,000 students by FY 1983, the ten additional fellowships would reduce the ratio to approximately 93 to 1.

URBAN TRANSPORTATION CENTER  
(\$100,000)

The Urban Transportation Center coordinates the research and direct service functions provided by the University of Illinois at Chicago Circle in urban transportation. The Center serves as a repository for transportation and transportation-related materials, including technical literature and documents. In addition, several types of extension programs have been developed to serve transportation agency staff in this region. The work of the Center's associated faculty over the past year has enhanced the reputation of this campus and the Center. The Center can and does compete effectively for outside funds in the areas of urban transportation planning, system evaluation, and transportation policy development.

The Center acts as a focal point for research conducted at three levels: 1) applied research on regional problems; 2) intermediate-range policy studies done under regional agency direction; and 3) theoretical research. The Center works closely with City and regional agencies (e.g., Chicago Transit Authority, Regional Transportation Authority, Northeastern Illinois Planning Commission, Chicago Area Transportation Study, Illinois Department of Transportation) to identify transportation problems which can be addressed through joint efforts. Because of its experience in assessment and evaluation, and its unique relationship with regional agencies, the Center has received a number of grants to review the design and development of new transportation systems in the Chicago area.

It is clear that the future in sponsored support for urban transportation research is excellent. Since half the nation's petroleum usage is in transportation, the requirements for energy conservation alone assure major Federal, State and local investment in transportation research. Further, the problems faced by the Chicago and regional public transportation authorities guarantee the need for the services and expertise of the staff of the Urban Transportation Center.

With additional basic support for the Center, UICC can become a notable urban transportation research institution in the field. The \$100,000 request for additional State funds allows the Center to hire a minimum number of new faculty and to provide the necessary resources to broaden the available technical skills and expand the Center's capacity to attract more non-State support. It also would provide for increased involvement of both faculty and students in transportation research. The education and training programs can be expanded to include more agencies and staff from the Chicago area. Finally, the additional resources allow the Center to continue to take the lead in urban transportation planning, system evaluation, and transportation policy development.



UNDERGRADUATE INSTRUCTIONAL LABORATORIES  
(\$100,000)

This request for increased support of undergraduate instructional laboratories is necessary because general price increments received by the campus for expenses and equipment have not kept pace with the costs of operating these facilities. UICC proposes to undertake a four-year program designed to significantly increase funds available for maintenance, repair, and operation; and to upgrade laboratory equipment and consumable items used by the students in the Biological Sciences, Chemistry, Engineering, and Physics. This program will provide, in addition to general price increases, new recurring resources amounting to \$400,000 over a four year period, beginning in FY 1983.

Most of the UICC undergraduate instructional laboratories were constructed and equipped in the years 1965-1970. Consequently, age of equipment items such as microscopes, oscilloscopes, balances, etc., is becoming a serious problem for maintenance and repair budgets. Further, obsolescence reduces the value of the training to the student who will be expected to have experience with newer equipment commonly found in industrial and research environments upon graduation. Heavy use of the laboratories and inexperienced hands accelerate wear and breakage. Higher enrollments (particularly in Engineering), increases registration in most undergraduate science courses and multiplies the wear.

The most damaging factor, however, in causing the accelerating deterioration of the laboratories is price escalation for supplies, maintenance, and repair. Inflation is approaching 30% annually in the price lists for most supplies, chemicals, glassware, etc., required for undergraduate instruction. Even with efforts by the campus to redirect base funds and price increase allocations to the laboratories, deterioration continues and a vigorous program of repair, replacement and upgrading is needed in order to provide the students with a quality education.

The campus operates a total of 53 undergraduate instructional laboratories with 1,762 student stations. Data below display the distribution of these laboratories in Fall, 1980.

	<u>No. Labs</u>	<u>No. Stations</u>	<u>Fall, 1980 Students</u>
Biological Sciences	15	382	2,644
Chemistry	12	579	1,589
Physics	10	270	1,557
Engineering	<u>16</u>	<u>531</u>	<u>2,545</u>
Totals	53	1,762	8,335

Science and Engineering laboratories are particularly expensive to equip and maintain. The College of Engineering, for example, expends \$97,000 annually to keep its 16 instructional labs in service. Repair and consumable costs to date for Materials Engineering alone amounted to \$18,147.

A comparison of budgeted amounts versus actual expenditures during the past three years highlights the problems confronting Science and Engineering.

	<u>FY 79</u>	<u>FY 80</u>	<u>FY 81</u>
Amounts available	\$610,649	\$632,149	\$665,916
Actual Expenditures*	777,698	807,101	N/A

Clearly, in order to respond to the rapidly deteriorating conditions in the undergraduate laboratory facilities internal reallocations have been essential at the campus level. However, given a continued high inflation rate, and competing needs for internal dollars, additional funding is critical to maintain the current level of undergraduate laboratory instruction.

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\*Amounts include undergraduate instructional laboratories, graduate and research laboratories, and administrative expenditures in Biological Sciences, Chemistry, Physics, and Engineering.

MEDICAL CENTER

REGIONAL PROGRAM DEVELOPMENT FOR NURSING EDUCATION  
(\$325,000)

Regional Development has become a major planning issue at the Medical Center campus for FY 1983 and the immediate future. Though first developed by health professionals and education planners in Illinois in the late 1960's, regionalization was adopted, and, importantly, funded by Federal sources throughout the 1970's. Initially, it was a strategy for improving the geographic distribution of physicians, but later the University of Illinois became a nationally recognized leader in expanding the model to many of the other health professions. An important secondary benefit of the strategy was the improvement of quality of care in the targeted regions.

In response to the Statewide Nursing plan initiated by the Board of Higher Education, the College of Nursing is prepared to make substantial changes in every geographic and program area mentioned in the Statewide plan in FY 1983. However, with declining federal support, additional State funding is required to implement these changes.

New funds will be required to support the BSN program that was begun with reallocated campus funds in the Quad Cities; to initiate graduate study at the Urbana site; and to increase enrollments in the baccalaureate program through affiliations with Evanston Hospital.

1) Quad Cities (BSN Completion) - \$150,000

Funds requested will be used to support 3.0 FTE faculty and 1.5 FTE in nonacademic support. A portion of the amount requested would be used to provide financial support for local hospitals providing a place for conducting clinical training.

2) Evanston (BSN Completion) - \$50,000

Funds requested would be used to employ additional faculty.

3) Urbana (MSN) - \$125,000

Funds requested would be used to establish a Master of Science program of the College of Nursing at the Urbana campus. To initiate this program it is necessary to recruit 2.5 FTE faculty and 1.5 FTE nonacademic support personnel. The program will offer clinical specialization in Adult Health Nursing. In addition, the opportunity will be offered for development of a functional role minor in either teaching or administration/supervision.

In the past, regional programs have been substantially supported by reallocated funds. The campus cannot maintain these programs indefinitely without additional State funding.

INTERDISCIPLINARY STUDIES IN THE BASIC MEDICAL SCIENCES  
(\$375,000)

As a major academic health science center, the Medical Center has maintained a high standing with regard to research, teaching, and clinical care. To continue to maintain this excellence, the campus must build on its expertise and use its resources to promote understanding of the fundamental mechanisms of disease processes which affect the quality of our lives.

The thrust of the Campus effort in FY 1983 will be to build on a number of specific areas in which there is expertise and to augment that expertise where necessary. The effort will involve scientists and clinicians in a number of areas, such as dermatology, immunology and rheumatology, cell biology and oncology. While scientists and clinicians already on campus and working in these fields will be involved, the effort also will require strengthening of areas such as pathology.

It is clear that major advances in molecular biology can be expected to yield a significant cost/benefit ratio in terms of understanding the fundamental mechanisms of disease processes, rather than simply their symptomology. These advances will affect both the pattern of health professions practice and health professions education in the next decades. In order for this University to continue to maintain (and indeed enhance) its standing in the forefront of research, teaching and clinical care, it must develop focused interdisciplinary groups which can themselves become identified nationally and internationally as centers of excellence.

To achieve these ends, two programmatic areas, based on the commonality of pathological processes, will serve as examples of the required research base.

Molecular Events in Cell Activity

Among questions to be examined are the following: Why do cells that are growing at a normal rate suddenly grow out of control? (the underlying problem of diseases such as psoriasis and cancer); How can one cell, during development, give rise to other cells as diverse as liver cells, kidney cells, brain cells or skin cells? (the basic mechanism of genetic disease and birth defects); and Why do cells and tissues age and decay? (the problem underlying

the diseases of aging, such as degenerative bone loss and osteoarthritis). These areas of research collectively promise to advance and may wholly change our approach to the treatment of a wide range of diseases.

At the present time within the College of Medicine the Center for Genetics, and several departments in the Schools of Basic Medical Sciences and clinical schools, are directly involved in research on these questions as an interdisciplinary effort. To build expertise and critical mass, however, it is essential that we recruit additional faculty members, with specific expertise, such as an experimental pathologist and molecular biologists.

#### Host-microbial Interactions

Microbial diseases (e.g., influenza, pneumonia, legionnaires' disease, periodontal disease, and a number of neuro-degenerative diseases) result from the way a microbe associates with its host. This field is a rapidly growing area of scientific inquiry. Knowledge of the factors by which invading organisms colonize their host and the way the host responds to the organism will enable scientists to design corrective therapies directed at control mechanisms specific to the disease being studied. For example, diabetes, until recently thought to be simply a failure of insulin production, is now known to be associated with certain viruses. As another example, schistosomiasis, a parasitic disease affecting hundreds of millions of people in the world today, is well suited to such study. Discovery of a control for this scourge of the underdeveloped world would be analogous to the control of smallpox by vaccination, or the control of bubonic plague. A small group of basic scientists and clinicians at the Medical Center are beginning to attack these problems. Support is critical to the development of this pioneering effort.

The educational and research components of this program will be coordinated by the Graduate College. The Graduate College extends across all units and disciplines and so is able to stimulate and foster interdisciplinary discussion groups, as well the initiation of teaching programs. Also a major function of the Graduate College is to support and assist faculty in obtaining external research funding. The program in molecular biology is a high priority and will attract substantial external funds to support its research component; this function of the Graduate College will be particularly important in the next decade.

Revitalization of Science and Technology at the Medical Center will, in FY 1983, focus on molecular biology. Watson and Crick's elucidation of the structure of DNA in 1953 made clear DNA's biologically central role and triggered the acceleration of scientific activity in the field of molecular biology. We now know that disturbances in bioregulatory mechanisms are basic to all pathological (disease) processes whether at the subcellular, cellular, organ or systemic level, including the progressive and debilitating ones such as diabetes; the crippling, such as arthritis; and the life-threatening, such as cancer. These problems, irrespective of whether their origins are genetic, bacterial, or malignant, affect the young, the middle-aged, and the elderly. All affect the quality of our lives. As a major academic health science center, the Medical Center must initiate a major effort to develop and augment interdisciplinary studies in this field, if the Medical Center is to maintain a leading role in the evolution of science and science education. As a consequence of doing what we must in order to stay current in biomedical research, we fully expect that funds invested in these studies will enable us to garner still more funds from national and international agencies vitally interested in solving these problems in molecular biology.



CLINICAL EDUCATION IN THE COLLEGES OF PHARMACY AND NURSING  
(\$200,000)

Study in all of the health professions includes extensive clinical observation and practice. The amount of clinical study and training required by the various health education curricula at the Medical Center varies, but nearly all of the health professions are expanding or enhancing the clinical components of their curricula. These developments result from mandates by accrediting agencies or they are planned so that leadership positions in the delivery of quality health educational programs can be maintained.

During the next five years, several of the Colleges at the Medical Center plan to expand and/or enhance the clinical components of their existing curriculum. The goal of these changes is to expand access for students to a large and diverse number of clinical training opportunities. To accomplish these changes, the Colleges of Nursing and Pharmacy will require new resources for FY 1983.

College of Nursing - (\$50,000)

In response to the Statewide nursing plan adopted by the Illinois Board of Higher Education, the College of Nursing has developed a plan to expand enrollment in its undergraduate and graduate nursing programs. A key component of this plan involves increasing the number of clinical affiliates. Expansion and enhancement of the clinical components of the College's curricula is particularly important in the development of advanced graduate study. Through the diverse clinical affiliations the College will be able to offer graduate students ready access to various practice environments for testing new methods of nurse supervision and administration, for teaching and evaluating various methods of clinical training and instruction, and for testing and evaluating new modes of health care delivery.

To accomplish the goal of increasing and enhancing clinical training, the College requires new resources in FY 1983. Arranging clinical affiliations requires substantial staff time. Once potential affiliates are identified, the clinical training programs must be developed. The College must also develop the necessary instructional evaluation procedures to be used in directing and supervising the clinical component of the instructional program. In FY 1983

new resources of \$50,000 are required to initiate these activities. These funds will enable the College to employ 2 additional clinical faculty. Unless the College establishes a firm network of clinical education affiliates, the College will be unable to accomplish its goal of expanding undergraduate and graduate enrollment.

College of Pharmacy - (\$150,000)

The College of Pharmacy is required by accreditation standards to improve the clinical components of its undergraduate and graduate curriculum. As the only College of Pharmacy in the State, it has established clinical training sites throughout the State. In this way the College is able to offer students a diverse range of clinical experiences in community and hospital pharmacy environments. At the same time, the affiliated pharmacists who provide daily direction and supervision for students in the clinical clerkships must improve themselves professionally so that they can provide relevant and up-to-date clinical experiences. The College has plans to improve the indirect support it provides for the affiliated clinical faculty. These faculty receive no pay, but they regularly accommodate at least one clinical student per year. If they are to keep current in their fields, they need to have opportunities for professional growth and development. The College plans to arrange more special training experiences for the clinical faculty. These are required if quality of the clinical educational programs is to be maintained by keeping the clinical faculty up-to-date with technological advances in the practice of pharmacy. A total of \$50,000 is required to initiate these activities in FY 1983. These funds would be used to arrange clinical development seminars and continuing education courses for clinical faculty.

The American Council on Pharmaceutical Education, in its accreditation visit April 1981, recommended that the College comply with the Council's standards that all undergraduates participate in a clerkship prior to graduation. Currently, about 65 percent of the undergraduates of the College receive clerkships. Further, the Council recommends that the College enhance the clerkships to include multisite rotations. Currently, clerkships are done for the full ten weeks at a single site.

To comply with accreditation standards the College has a 5-year plan to improve clinical clerkships. These plans include offering both community and

hospital pharmacy clinical experiences to all undergraduates. The practice of pharmacy has been changing rapidly. Demand for hospital pharmacists is growing and community pharmacy practice is changing very rapidly. It is essential that all undergraduates be exposed to several types of practice environments prior to selecting their career route.

To accomplish these goals the College requires new resources of \$36,000 in Fiscal Year 1983. These funds are required to employ 3 nonacademic personnel. The new positions are needed to handle increased scheduling, student evaluation and counseling, and support for affiliated clinical faculty. With more than 100 separate locations, evaluating student performance during the clerkship is difficult. The College plans to devise evaluation instruments to assure that each clerkship meets the minimum educational standards of the College.

In FY 1980, the College initiated a Doctorate in Pharmacy (Pharm. D.) program. During the past decade, pharmacists have accepted more responsibility for monitoring drug use. This expanded role includes taking medical histories, maintenance of drug use profiles, and the education of the patient on proper drug utilization.

The Pharm. D. program was initiated to provide a limited number of pharmacists the didactic and clinical educational background in drug therapy and disease states to fulfill this expanded role in the delivery of health care. However, at the present funding level, the program cannot achieve adequate enrollments to serve the number of pharmacists who could benefit by this training. The estimated new resources of \$64,000 required in FY 1983 will be used to employ two additional faculty, which will permit expanded enrollment and improve program effectiveness.

URBANA-CHAMPAIGN

RESPONSE TO CHANGING STUDENT DEMAND  
(\$840,000)

Since FY 1971 there have been rather significant shifts in student enrollment demand towards engineering, accounting, business administration, finance, economics, computer science, and agriculture and away from elementary, secondary and physical education, the humanities, and social sciences. These shifts have placed severe pressures on the Colleges of Agriculture, Engineering, and Commerce and Business Administration, and on the Department of Mathematics, which provides service courses for the others areas mentioned. Instructional units (semester credit hours) generated in these units have increased markedly:

	Instructional Units		
	Fall, 1970	Fall, 1980	Percentage Increase
College of Agriculture	18,295	24,416	33.5%
College of Commerce & Business Administration	35,853	60,686	69.3%
College of Engineering	61,169	87,564	43.2%
Department of Mathematics	41,384	45,504	10.0%

This changing load pattern has taxed the UIUC to meet current student and societal needs with the quality programs which have been its hallmark. Student admissions have had to be severely restricted in these disciplines because of a lack of resources. Since students are admitted on the basis of "best-qualified-first" the entrance standards for these units have risen steadily as the demand has grown. The mean high school rank of entering freshmen in most of these areas is now well above the 90th percentile, and the mean ACT scores for the group range from 26 upward, depending on the discipline involved.

The pressures have grown so great in some curricula in these units that the numbers of on-campus transfers have had to be reduced drastically, and the numbers of off-campus transfer students have been cut back sharply. This has strained long-standing commitments and agreements with community colleges and other 4-year institutions of higher education in the State. However, it seems totally unreasonable to raise entrance requirements even higher for entering freshmen in order to accept transfer students who may have lower qualifications.

At present, no further enrollment expansion in the high-demand curricula cited is being considered; and, in some areas, enrollments will be reduced unless and until support is increased. However, even if there is no further growth in the high demand areas, the University must still provide sufficient funds to meet the needs created by the students currently enrolled. To the extent possible, the Urbana-Champaign campus has reallocated internal funds to the units mentioned here; however, those reallocations have been insufficient since they have been severely restricted as the University's budget growth has lagged the rate of inflation.

Another factor that limits internal reallocation is the process through which growth occurs in an academic unit. For example, in the 1950's and 1960's when the College of Liberal Arts and Sciences was experiencing a large surge in enrollment, support to that college was increased commensurately. Those new funds were not allocated simply to increase the capacity of the College; they also were used to broaden and enrich its offerings. New programs were established, reflecting newly developing interests and needs of society. As overall enrollments in Liberal Arts and Sciences have decreased during the last several years, they have not been matched in magnitude by normal resignations and retirements of faculty members. Any plan which selectively identifies programs for reduction or curtailment would involve the termination of tenured faculty positions. Thus, neither reallocation nor retrenchment can be expected to solve all of the problems associated with shifting student demands.

The goal that UIUC has been working to achieve for these high-demand units is to provide enough faculty and accompanying support to reduce the high teaching loads in these areas to a level approximating their average teaching loads in the past decade. In order to accomplish this goal, UIUC proposes that the State provide annual incremental allocations of \$840,000 each year for a period of five years--an amount that the Urbana-Champaign campus would match through funds acquired from internal reallocation.

GRADUATE STUDENT SUPPORT  
(\$250,000)

The quality of a graduate institution is strongly influenced by the quality of its students. The presence of these top-quality students is essential to the maintenance of a top-quality faculty. Great professors attract the best students and vice versa. It is not possible for departments to build and maintain faculties of the first quality if they cannot compete financially for the very best graduate students through a strong program of fellowships. In addition, fellowship funds have been instrumental in the Graduate College's successful efforts to promote diversity in the graduate student body and to provide opportunities for graduate education to underrepresented racial and ethnic minority groups. Both the size and the number of the fellowship stipends, however, have limited the Graduate College's achievements in this area.

The competitive position of the University of Illinois fellowship programs has declined seriously in the past ten to fifteen years. Since the development of the post-Sputnik Federal fellowship programs (most of which have since disappeared), UIUC fellowships have been financed in part by state funds and in part by Federal cost-of-education allowances. While State funds have increased from \$400,000 in the mid-sixties to \$735,000 at present, cost-of-education allowances in the same period have decreased from over \$1,400,000 to \$150,000. As a result, UIUC programs have become less and less competitive as peer institutions have increased their levels of support to meet inflationary increases in the cost of living and general research expenses.

In order to recover the Graduate College's competitive position and to stabilize the base for graduate fellowships catch-up funding was requested consisting of \$170,000 for FY 1982, \$432,500 for FY 1983 and \$310,000 for FY 1984. The first increment of \$170,000 was provided in FY 1982 as one of the programs funded by the differential tuition increase. Of that amount, \$129,000 was used to fund 43 new fellowships at \$3,000 each. The balance, \$41,000, was used to increase each of the existing fellowships to \$3,000. For FY 1983, UIUC has modified its original request and is asking for \$250,000 to increase all 243 of its fellowships from \$3,000 to approximately \$4,000 each. It is anticipated that the balance of UIUC's initial program will be requested in FY 1984 and FY 1985 and that annual increments to the State base will be required in FY 1986 and beyond to keep pace with inflation.

INTERDISCIPLINARY RESEARCH AND EXTENSION PROGRAM  
TO IMPROVE SURFACE WATER QUALITY IN RURAL AREAS  
(\$100,000)

This program, proposed by the College of Agriculture, will initiate additional education and research activities in the areas of water quality and soil erosion control. In 1979, a statewide committee recommended to Governor James Thompson that an Illinois Water Quality Management Plan involving UIUC and State and Federal governmental agencies be initiated. The Plan was approved by the Governor and in FY 1981 the General Assembly assigned statewide responsibility for the Plan and provided \$500,000 of new funds to begin the program.

The Illinois Water Quality Management Plan designates the University of Illinois at Urbana-Champaign as the agency responsible for conducting the education and research programs needed to implement the Plan in concert with the code departments of State government. A total of \$100,000 is requested for FY 1983 to implement the first phase of the University's program of education and research.

The importance of the program is illustrated by the Illinois Environmental Protection Agency estimates that an average of 181.4 million tons of soil is eroded by water each year in the State. Of this amount, 158 million tons are lost from agricultural land because of sheet or rill erosion--an equivalent of 8,000 acre-feet of lost reservoir storage capacity each year. Soil erosion exceeds the soil loss tolerance of an estimated 42% of Illinois cropland (10 million acres), and it has an extremely deleterious effect on the quality of the water in the State.

Soil conservation technology has not kept pace with the enormous changes that have occurred in agricultural production. More intensive cropping practices, greater dependence upon chemical fertilizers and pesticides, and the use of large capacity machines create new conservation problems. There is an urgent need for both applied and basic research to gain new knowledge and for transfer of the knowledge derived to students, agricultural producers, governmental and regulatory agencies, and the citizens who ultimately determine the desirable level of regulations and bear the financial burdens associated either with regulation or with failure to make the best use of the State's natural resources.



The College of Agriculture's Experiment Station will substantially expand its research program addressing the problems of erosion, pest management (weeds, insects, and plant diseases), and water quality if sufficient additional funds are made available. Sophisticated research methods involving personnel from numerous UIUC departments and the Illinois State Natural History Survey will be employed to insure favorable economic, environmental, and sociological consequences. The research program has the following specific objectives:

1. determining cultural management practices for optimum sustained crop production/crop protection systems for land where excessive erosion now occurs;
2. determining the economic impact of higher costs of fertilizers and pest control chemicals on alternative production systems;
3. evaluating the effectiveness of applying alternative soil conservation practices on water quality; and
4. evaluating long-term effects of reduced tillage systems on diseases, insects, weeds and soil losses and the need for pesticides.

County Cooperative Extension Service advisers will continue to be the primary delivery agents for the expanded educational program. Extension specialists at UIUC will develop needed educational materials, provide continual in-service training for county and area Extension personnel; and arrange meetings and organize conferences and seminars to facilitate effective interaction among agencies and organizations involved in maintaining a continual flow of information to the people of Illinois via the mass media. The Cooperative Extension Service will conduct educational programs on the following subjects related to improving the water quality of the State:

1. estimating soil erosion and evaluating the impact of soil erosion and production practices on land and water quality.
2. determining the cost and benefits of specific soil conservation and production practices.
3. selecting the best combination of agricultural production practices for particular farm situations, and
4. making the best use of the technical and financial resources and assistance available to develop and to implement food production systems.

To implement this expanded program in FY 1983, a total of \$100,000 is being requested to fund one State Specialist in Water Resources, two soil erosion researchers, clerical staff and expenses. An additional increment of \$888,700 in FY 1984, \$754,600 in FY 1985, and \$219,900 in FY 1986 will be required, bringing the total after four years to \$1,963,200, the amount specified in the State Water Quality Management Plan.

A PROGRAM OF FUNDAMENTAL ENGINEERING RESEARCH  
DIRECTED TO ILLINOIS INDUSTRY  
(\$150,000)

The industrial component represents by far the largest segment of the Illinois gross state product (GSP) at 44% or nearly \$6 billion. The overall economy of the State is governed mainly by the strength and economic health of the industrial sector. In the face of competition with other U.S. and foreign industries supplying similar goods and services, Illinois industry requires new products, progressive development of existing products, and substantial increases in productivity to sustain and to expand its crucial role in the State's economy.

Research service to Illinois industry was the original function of the Engineering Experiment Station (EES) when it was chartered by the State in FY 1904. For three quarters of a century, EES has provided support to Illinois industry through the information generated in its research program and the students educated through that research. Since World War II, a higher fraction of research support has been provided through grants and contracts sponsored by the Federal government. Therefore, although a strong fundamental program of continuing research has been established which provides support for the further development of Illinois industry, the fraction of effort targeted to the specific needs of large and small companies operating in Illinois has diminished appreciably. The objective of this proposal is to bring balance to the situation once more by providing a strong program of fundamental research focused on the needs of Illinois industry.

"Fundamental" research directed toward a need is that mode of research that lies toward the center of the spectrum defined at one extreme by basic scientific research and at the other by applied industrial research and development. A research program based on the needs of Illinois industry would be consistent with Federal priorities, and it is expected that significant Federal supplements can be obtained to support such research.

An Industrial Advisory Board, composed of leaders of Illinois industry and representing both large and small firms, would advise on

basic policy, suggest appropriate major areas for research activities, serve as a high-level liaison between the EES and Illinois industry, and assist in the continuing evaluation of the program. Once the major areas of research have been broadly sketched by the Industrial Advisory Board, a series of Advisory Panels, including experts from inside and outside the University, would be appointed to provide a more precise focus within the areas outlined by the Advisory Board.

Based on the areas identified by the Advisory Panels, the faculty of the College would then select topics from these areas for fundamental research, submit proposals, and make recommendations for funding to the Dean of the College and to the Director of the Engineering Experiment Station.

A total of \$2.4 million is requested over a three-year period to establish the program. Projects to be supported would average \$50,000 a year for part-time support of faculty members, graduate students, support personnel, equipment and other necessary expenses and services.

The program would initiate three projects in the first year for an average duration of three years. In the second year, nineteen more would be initiated, and twenty-six in the third year. The indicated incremental state-funded support is \$150,000 for the first year, \$950,000 for the second, and \$1,300,000 for the third.

By the third year, the impact of industrial and Federal funds would become evident. In the fourth year, this support would constitute a significant portion of the incremental funding. It is expected that industrial and Federal support would ultimately exceed the state support for this program by a large margin, because of the number of programs currently being developed to enhance the type of joint industry-university research being contemplated. This is not an unreasonable expectation, when it is noted that for five of the last six years the separately-budgeted research program of the EES has been the second highest of all U.S. institutions, accounting for nearly 5% of all engineering college research nationally. In FY 1980, the College attracted more than \$20 million in Federal support for research (including indirect costs).

GRADUATE RESEARCH BOARD  
(\$280,000)

The Urbana-Champaign campus of the University of Illinois is a major research enterprise. Its research capacity is a driving force in its undergraduate and graduate teaching programs and provides a strong base for its public service role. A responsibly managed research enterprise must provide for adequate support of new research ventures and for maintenance of research capacity. Such support is a critically important investment for an enterprise which depends heavily on external sources for research support.

Since 1932 the campus Research Board has operated as a committee decision-making structure to control and distribute a competitive research fund. This fund supports faculty research in response to applications submitted by individual faculty or groups of faculty. The Board helps new faculty initiate research on this campus, provides seed money for research programs for which external support is available, supports pilot projects, provides modest resources for important research for which external sources are not available, assists in provision of matching funds sometimes required by external sponsors, and responds to emergency research requests as well as requests to take advantage of unusual research opportunities. The Research Board is not a substitute for external granting agencies but is particularly important for support of preliminary studies and in disciplines where Federal funding is minimal.

The return on investment in seed projects at a strong research institution is substantial. For example, in FY 1979 the Research Board provided approximately \$400,000 in seed money support. By Spring, 1980, external funds of more than \$1.4 million had already resulted from this investment, even though for most of the projects a year's time is too soon to expect a substantive return.

The Research Board plays an essential part in supporting new research ventures and in maintaining research capacity for the UIUC. However, in recent years its ability to meet this responsibility has been seriously curtailed. Severe budget reductions and inflation have eroded its

purchasing power to less than one-third of what it was in FY 1969. At the same time, the number of research requests submitted to the Research Board has increased markedly as other campus and departmental resources have become strained. The percentage of applications to the Research Board which receive any support at all has declined noticeably, and many awards offer only partial support. Unfunded and underfunded requests total \$1.5 million each year. Several types of support are no longer offered at all. These developments discourage potential applicants and stifle exploration of new research ideas. Important research needs at UIUC are, therefore, not being met.

It is essential that a major adjustment be made in the budget base for the Research Board. Funds would be used for the purposes described previously, but emphasis would be placed on research investments which would support the campus strategy to maintain and to enhance its quality. For example, the Research Board would help provide substantial research initiation support to assist in attracting exceptionally able young researchers in fields of special promise and in retaining strong faculty who are much sought after by other institutions. The Board would be able to assure that the present UIUC faculty's promise is not wasted by serious research equipment inadequacies. It would be able to assure that the ablest scholars have access to important research resources elsewhere and have opportunities for presentation of the results of their work. The Board would also be able to stimulate and to encourage high quality research which has technological implications.

An incremental adjustment of \$280,000 for each of the next four years in the Research Board's base budget would enhance its capacity to meet the critical needs described. It is important to note that the Research Board is a very effective mechanism for distribution of scarce resources for furtherance of research. Both faculty and administrators recognize it as a legitimate, effective, and autonomous body, capable of identifying and fostering excellence in research in all fields.

COLLEGE OF LAW  
(\$130,000)

The three major goals of the College of Law remain unchanged:

1. to achieve student/faculty ratios more comparable with those presently in existence at peer law colleges in the nation;
2. to be responsive to the rapid developments in the law through the introduction of additional courses in areas of national concern;
3. to introduce additional interdisciplinary work into the law curriculum as well as to be able to respond to the needs of other academic units on campus that want law components in their instructional and research programs.

Enrollment pressures remain high for the College of Law. Hundreds of excellent students have been denied admission to the College during the last decade as enrollments have been reduced and held to between 600 and 650 per year. However, these efforts to bring enrollments more in line with available resources in the College have not been totally successful. When the College has all of its 29.0 FTE faculty positions filled, the student/faculty ratio is 21.4/1, well above the range of student/faculty ratios (16.2/1 to 20.3/1) found at other law schools of comparable size and quality. The College presently has four faculty vacancies and does not expect to be able to fill them all in FY 1982, boosting the student/faculty ratio to approximately 24.8/1. Salary levels have contributed to the exodus experienced in the College of Law, but heavy teaching loads and the inability to include more courses in the curriculum and to adopt new approaches in law instruction probably have been even more important factors.

In recent years, it has become apparent that some aspects of legal education (especially beyond the first year of instruction) require smaller classes. This is particularly true in problem-oriented courses such as estate planning, business planning, trial advocacy and clinical education, legal ethics, and labor negotiations. Because the College has not had enough faculty members, it has not been able to be responsive to these needs.

An excellent law school must be able to offer specialized instruction in new areas as they occur. Such areas as legal management of resources and energy, deferred compensation, corporate finance and securities law, labor law and negotiation, and real estate financing are current examples of such areas. The College must also be able to respond to requests from fellow faculty members across the campus who need its assistance in establishing joint degrees such as the J.D./M.B.A., J.D./M.S. in Urban and Regional Planning, the J.D./M.S. in Education, the J.D./A.M. in Labor and Industrial Relations, the J.D./M.A.S. (Master of Accounting Science), the J.D./M.A. in Public Administration, and the J.D./M.D.. The College should also be able to release faculty time for teaching of law-related courses in other academic units. New interdisciplinary courses also are needed within the College: Law and Economics, Law and Medicine, Law and Drugs, Law and Psychiatry, and Legal History--to name a few. The present staffing of the College does not permit it to address any of these needs adequately, because the faculty members must devote nearly all of their time to maintaining the basic curriculum.

Additional secretarial and technical services will be required to support the new directions described. The new needs of the program will require increased in-house production of teaching materials and video-taping of student performances in trial advocacy and negotiation-type courses. Expense funds will be required to support the requirements of the new personnel that will be hired.

The College of Law derives its national standing, in large measure, from the research contributions its faculty members have made in virtually all the important areas of law. Faculty members are also heavily involved in public service activities such as the Commission on Uniform State Laws and Illinois Pattern Jury Instructions. To maintain the research and public service components of the College program, time, as well as additional staff and financial support, is required.

If the goals of the College of Law are to be met, an incremental amount of \$263,000 will be required during the next two years. Roughly half of that amount, \$130,000, is being requested for FY 1983.



COLLEGE OF VETERINARY MEDICINE  
(\$250,000)

The College of Veterinary Medicine has been expanding and improving its programs by acquiring new facilities, staff, and other operational support. Major goals to expand and enhance the programs of the College were established in 1977 and have been re-emphasized each year. Progress toward achieving these goals has been made, especially in regard to the acquisition of new and improved facilities. Over \$21 million has been appropriated for construction of a new Veterinary Medicine Basic Sciences Building that is expected to be ready for occupancy in June of 1982.

In addition to the Basic Sciences Building, two swine confinement research buildings, a swine gestation building, a rabbit and dog kennel, and a support building have been constructed at a cost of approximately \$1.2 million. Construction funds amounting to \$1.7 million were appropriated in FY 1980 for a new Swine Research Center, and these facilities are expected to be operational in the Fall of 1981. These facilities have strengthened the swine research program markedly.

Through financial assistance from the State and the University, the College has improved its level of operational support; however, additional support is needed to maintain high quality programs and to compete for outstanding faculty and students. With the College's capital needs partially met, improved operating support for program expansion and improvement becomes the highest priority need.

The College of Veterinary Medicine has reexamined and modified its original goals for FY 1983 to reflect the achievements already made and to adjust for some significant changes in Federal program support. The revised goals, which assume adequate levels of financial support, are as follows:

1. To reach a level of research activity that will be comparable with that of other programs on campus and that will be well matched to a high quality educational program. Comparisons with peer institutions indicate that this level of program quality corresponds to a level of State support of \$21,560 per student equivalent (FY 1983 dollars).
2. To enroll 104 students in the first-year class by FY 1985.

3. To achieve teaching associate and technical staff per faculty ratios more compatible with those presently in existence in peer veterinary colleges in the nation.
4. To complete the construction program outlined in Food for Century III through the capital budgeting process.
5. To improve and to expand the teaching, research, and public service programs of the College to utilize maximally the new facilities that are being realized.

The College established a projected goal in FY 1977 of \$15,000 per student in state-appropriated funds that would provide additional faculty and staff to allow planned changes in a new curriculum and provide personnel for a major expansion in the College's teaching, research, and service programs. This goal was determined following a comparative study of state-appropriated support levels at other veterinary colleges with recognized strong programs. The projection of \$21,560 per student equivalent in FY 1983 dollars reflects inflationary increases from the original support level calculated during the FY 1977 study, and is projected to be achieved gradually over the next 3-4 years.

The College is implementing improvements in its professional curriculum that will provide students with a broader course selection and expanded opportunities for clinical training during the last two years of the students' education. Particular attention is being given to the food animal curriculum in line with the objectives stated in the Food for Century III program. Even though staffing improvements have been made during the past several years with major emphasis placed on clinical programs, the clinical faculty still spend more than 70% of their time in assigned teaching and patient care duties. Several new food animal teaching programs cannot be implemented without additional faculty.

Loss of Federal capitation support, limited increases in state-appropriated resources, implementation of a new curriculum, and inflationary effects on existing operational funds have all played a role in the necessary reduction in enrollment that will occur in the fall of 1981. The entering class size will decrease from 91 to 80 students in order to maintain existing program quality. Current projections indicate that the entering class size can be increased to 104 in FY 1985 if significant improvement in operational funding can be achieved during the next three years. The funds will be

utilized to add faculty in selected areas and to provide teaching associate, teaching assistant, and nonacademic positions needed to improve and to expand both the professional and graduate teaching programs of the College. The additional personnel will provide teaching support which will also allow existing and new faculty to devote more time to research projects and programs.

Extramural funding of research projects has continued to expand with additional funding being realized from USDA, NIH, and other Federal, state, and industrial sources. Several external reviews have indicated excellence in a number of the College's research programs, especially those dealing with infectious and noninfectious disease problems of food animals and those involving aspects of comparative medical research where knowledge gained is applicable to both man and domestic animals.

The recognized development of a world food crisis and increased energy costs are playing major roles in the demand for expanded agricultural productivity in Illinois and the nation. Almost all national food animal commodity groups have organized under a coalition named the Animal Forum. Individually and collectively these groups have identified the need for research on food animal diseases as their top funding priority. The efforts of the Animal Forum and many other organizations are being recognized at the Federal level by increases in almost all areas of agricultural research funding under the USDA. This, along with defense spending, is one of the few areas in the Federal budget that will realize any growth this year.

Illinois has also recognized the importance of agricultural research as a major mechanism to increase productivity through the provision of research facilities under the Food for Century III program. The College of Veterinary Medicine is the principle organization in the State with the potential capacity to address many of the food animal disease problems that presently concern the State's animal industries. In order to address these concerns, research efforts directed toward specific animal health and disease entities will be required as well as collaborative efforts with animal scientists, agricultural engineers, and others to solve many of the problems that hinder improved productivity in modern intensive food animal production systems.

Although the College of Veterinary Medicine has made excellent progress with the new funds and facilities provided during the past three to four years, it has now reached a critical point in its development. Industry and new veterinary schools are facing unprecedented competition on maintaining existing faculty and hiring new faculty. Existing graduate programs are not providing enough specialty-trained veterinarians to meet existing demand. This pressure will not be relieved for the next 10 to 15 years in many specialty disciplines because of nationwide limitations for graduate program support in veterinary colleges.

The FY 1983 program improvement request of \$250,000 is the first step in a six year plan that will provide faculty and staff to utilize effectively the new physical facilities, to allow expansion of both professional and graduate teaching programs, and to allow expansion and improvement of the College's research and animal disease service capacities. It will ultimately help to maintain and to expand Illinois' food animal production capacity.

GENERAL UNIVERSITY

STATE/UNIVERSITY LIAISON PROGRAM  
INSTITUTE OF GOVERNMENT AND PUBLIC AFFAIRS  
(\$45,000)

There is growing awareness both nationally and statewide that higher education needs to develop more effective research communication channels with State government officials. Many State officials are simply unaware of potential contributions that University of Illinois faculty can make in addressing research issues of public policy facing Illinois. The need to improve cooperation has arisen from several recent trends. First, State government is increasing its use of private consultants to provide expertise on scientific and technological issues. Second, the information explosion has created difficulties in keeping abreast of current public policy research for State officials. Finally, University/State exchange has traditionally relied upon close individual working relationships. This type of informal communication, while very beneficial, is nonsystematic and difficult to access for all persons with policy interests.

The President's Assembly on State Policy Research held in October, 1978 provided the impetus to initiate a program in which faculty and State officials can work together in a systematic manner on public policy issues affecting Illinois. The primary objectives of the State/University Liaison Program are: to increase accessibility to research resources by State government policy officials; to assist in matching these research needs with faculty expertise in the University; and to encourage participation from other Illinois universities with relevant research capabilities in project activities.

The program builds upon two current projects of the Institute:

1. Coordinator for Government Service Programs - This position was designated within the Institute for FY 1980 to strengthen the interaction of University faculty and State agency research needs. The coordinator, with guidance from the State/University Relations Committee, developed and distributed to State officials a publication entitled University of Illinois Service to the State: A Directory of Faculty Research Resources.

2. Higher Education Cooperation Grant (HECA) - The Institute was awarded a HECA grant for FY 1981 to develop a computer-based faculty research data bank for State government. This project, entitled Faculty Research Assistance to the State (FRATS) will produce a user-initiated data bank of university research expertise (Statewide) that can be brought to the service of State agencies and commissions. Through existing computer terminals in their agencies, State research and policy officials will have direct access to the data bank identifying research expertise within the Illinois university community that they are seeking.

Specific proposed activities include:

- Placement of faculty or postdoctoral students in State government units, for a designated period or project, as research or policy scientists.
- Development of a series of faculty-State agency research briefings or seminars on issues of Statewide importance.
- Development of a University-State sponsored grant program to provide support for faculty research on issues of both intermediate and long-term significance to State government.

The State/University Liaison Program will benefit the State of Illinois in improved quality of information available to government policy-makers; bringing faculty research expertise to bear on issues of Statewide public policy; increased visibility of the University's research capabilities; and enhancement of inter-institutional cooperative activities among Illinois universities.

Total resource requirements include a full-time administrator (Coordinator for Government Service Programs), clerical support, project expenses, and general program expenses. A total of \$45,000 new State money is requested for FY 1983.

PUBLIC SERVICE PROGRAMMING IN REGION 2  
(\$135,000)

The primary objectives for public service programming in the University of Illinois Public Service Region 2 (Cook County and eight contiguous counties) for FY 1983 are as follows:

1. To meet the educational needs of citizens in the area by offering quality programs consistent with those provided on campus.
2. To enrich both research and teaching efforts by increasing participation of University of Illinois faculty in continuing education and public service programming.

To attain these goals, \$135,000 in new State funding is requested for FY 1983 to initiate two major components; programming in Region 2; and exploration of a University-wide data system.

Programming in Region 2

Program Development (\$48,000)

These funds will be utilized to expand and/or develop specialized programs which address community needs. An example of the type of program under consideration is noncredit coursework designed to assist small business operators. Faculty in the disciplines of Commerce, Business Administration, and Engineering would prepare relevant seminars on topics such as financing small businesses, marketing techniques, inventory control, computers, and advertising. These types of programs result in providing Region 2 with the benefit of the University of Illinois' academic expertise across a wide range of utilitarian topics with direct application to the business sector. Funding will allow presentation of 10 complete programs.

Office of Continuing Education (\$20,000)

The Office of Continuing Education in Chicago has recently experienced considerable growth in conference, seminar, and short-course activity for professionals. Consequently, very few new or innovative programs are undertaken each year. However, increased State requirements



for mandatory continuing education, and additional pressure from professional associations for periodic updates have combined to stimulate greater demand for this service. This demand for professional continuing education programs is not being adequately addressed. Funding of this request would provide partial staff support to develop new and innovative programs in a variety of disciplines.

Program Support (\$42,000)

Program support relates to opportunities for the University to improve its outreach activity via use of remote delivery technology. This phase will involve expansion of the electronic blackboard in Region 2 to offer both credit and noncredit continuing education opportunities. Remote learning equipment will be located at Oak Brook for the delivery of courses which are currently conducted only on campus.

University-Wide Data System (\$25,000)

Currently, no data system exists which records programmatic efforts in continuing education at either campus or system-wide levels. Consequently, collection and maintenance of basic information for reporting purposes is time-consuming and problematic. Funding is requested for staff support to design a computer program which will meet the overall data requirements for a University-wide system. The specific purposes of this system would include recording continuing education and public service activities for use in planning, delivering, and evaluating those services.

In summary, \$135,000 is requested in new State funding to develop and improve continuing education programming efforts in Region 2, and to implement a University-wide data system.

GERONTOLOGY CENTER  
(\$50,000)

The primary goal of the Gerontology Center is to stimulate the development and application of research related to the aged. It is also involved in teaching and public service, provides clearinghouse and coordinating functions, links the University to outside funding sources, and serves as a focal point for community concern for older persons.

Interest in the field of gerontology is growing in a number of sectors. Many State and local agencies are initiating programs for the aged. Emerging consumer groups and service organizations are actively seeking assistance in program development. With the rapidly increasing numbers of elderly, public administrators also require professional support in planning, delivering, and evaluating a wide variety of services. Given current resources, this increasing demand is beyond the capacity of the Center to adequately address.

This request is for \$50,000 in new State funds to develop three campus-based offices to augment the core program of the Center. Campus offices are necessary to respond to local campus and community interests, while initiating and coordinating multidisciplinary gerontological research. Also, campus level offices will provide greater visibility and accessibility to planning, research, and teaching efforts. Funding this proposal will facilitate work of individual faculty members and collaborative teams in making disciplinary contributions to gerontology. Finally, this all-campus office system would allow Center staff to concentrate on development of external funding sources through private foundations and governmental agencies.

In summary, campus centers will result in expanded opportunities for research, increased efforts to obtain outside funding, and improved teaching and public service efforts in gerontology.

LIBRARY COMPUTER SYSTEM  
(\$365,000)

The Library Computer System (LCS), an automated, on-line circulation and search system, has been funded by the State since FY 1978. The program promotes statewide sharing of academic library materials, a significant step toward equalizing library access among all campuses and coordinating inter-library requests with other networks within the State. The success of LCS to date in serving the 18 participating institutions has generated the need for funding to provide full support for the implementation of LCS as specified in the original plan and to permit expansion of the system to additional libraries.

Approximately 300 terminals are currently on-line and provisions have been made to connect 80 additional terminals to the University computer. The latter figure will permit extension of greater service to academic libraries which are already a part of LCS. To establish linkages between the central computer and the new terminals, the University received a \$65,000 grant under the Higher Education Cooperation Act (HECA) to lease communications equipment in FY 1982. The HECA grant allocation is non-recurring; therefore, new state funding of \$65,000 in FY 1983, and continued inclusion of this base amount in subsequent fiscal years, is needed to sustain the LCS network at its present level.

In addition, LCS proposes to expand the service network by 400 terminals, including 42 terminals requested by Southern Illinois University, one of the four Research and Reference Centers in the State. The new terminals will be installed at participating institutions during the three-year period of FY 1982 - FY 1984. Their costs are not included in this request. However, funding will be required to expand the University's system development activities, including additional computer support, programming and equipment. A pilot project is also underway to determine the capabilities of an on-line catalog program (Full Bibliographic Record).

The 400 new terminals will be brought on-line in approximately equal increments over the 3-year period. The indicated incremental state funding is \$300,000 per year for FY 1982-FY 1984, implemented on a recurring basis.

The distribution of funds by function is described below.

400-terminal expansion:

Computer mainframe (Central Processing Units)	\$150,000
Peripheral Equipment (storage, communication controllers, etc.)	90,000
Support (software, maintenance, salaries, tapes, etc.)	60,000

(Subtotal: \$300,000)

Replacement funds to support full implementation of LCS network	<u>65,000</u>
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TOTAL	\$365,000
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REPLACEMENT OF HIGH TECHNOLOGY EQUIPMENT  
(\$2,500,000)

Beginning in FY 1977 the University's operating budget request has included incremental amounts for what has been termed an equipment deficiency. These requests have been based upon a thorough study of the University's total equipment base, depreciation of that equipment using accepted depreciation schedules by type of equipment, and current replacement costs for obsolete equipment. For the period FY 1972 through FY 1981, that deficiency reached a cumulative total of nearly \$15 million. It was offset, to some extent, by the appropriation of \$220,000 in FY 1980 and \$650,000 in FY 1981 to begin the recovery process. No additional funds were made available in FY 1982.

The problem of obsolete equipment affects all programs in all fields, but nowhere is it more damaging than in those disciplines and programs heavily dependent on "state of the art" technology for both instructional activities and research. Students whose educational programs have included instruction and training on obsolete equipment are simply less well prepared than they should be, regardless of the quality of other aspects of their programs. As the inability to replace obsolete equipment grows, it has a direct affect upon the recruitment and retention of faculty members for whom up-to-date equipment is an integral part of teaching and research operations. It should be noted that this problem is not unique to the University of Illinois, but is common to major research universities, particularly as Federal funds for equipment purchases have failed to keep pace with inflation.

In view of the especially severe impact of obsolete equipment upon the sciences and other disciplines heavily dependent on rapidly changing technological advances in equipment, the University has devoted a substantial portion of the FY 1983 programmatic request to funds which will be used for replacing obsolete equipment in the sciences, engineering, and other highly technological areas. A total of \$2.5 million is sought for FY 1983.

**SPECIAL SERVICES/FUNDING COMPONENTS**

#### SPECIAL SERVICES/FUNDING COMPONENTS

Budget requests for essential services provided by the University of Illinois to residents of the State are summarized in this section. These services are outside the University's core functions of instruction, research, and public service. As such, the resource requirements of these services should not compete for educational funding.

Included in the special services section are requests for County Board Matching Funds (UC), Area Extension Advisors (UC), Resource Development in Southern Illinois (UC), Color Video Tape Capability for Cooperative Extension Service Programs on the TeleNet System (UC), the Office of Real Estate Research (UC), and the Fire Service Institute (GU).

COUNTY BOARD MATCHING FUNDS  
(\$427,300)

Under the County Cooperative Extension Law which was amended by the General Assembly in 1979, the State, through the University of Illinois, is required to provide appropriations from the Agricultural Premium Fund (APF) to match partial allocations from county sources in support of county extension work. The state money supplements county funds and the law provides for a gradual increase in the matching rate up to a 50-50 ratio by 1984.

County or multi-county Extension Councils, which were established according to guidelines approved by the University of Illinois Board of Trustees, forward proposed county or multi-county budgets to the Director of the University of Illinois Cooperative Extension Service for review and approval. The approved budgets are then submitted to the appropriate county governing board by the county or multi-county Extension Council. Local funds are then paid to the University of Illinois to be maintained in county trust funds and are used along with the APF matching funds in a manner consistent with the approved budgets. Trust funds are used to pay local costs such as rent, some salaries, program materials, local travel, etc., of the more than 100 county extension offices.

The amended County Cooperative Extension Law calls for an increase in the matching provision from 40% to 45% in FY 1983. This means that the counties will provide 5% less, and 5% more is to be provided from APF. This change is to be effective July 1, 1982.

Incremental funds for FY 1983 are requested in the amount of \$427,300 to comply with the 45% matching requirement of the amended State Law. The following table shows the recent history of the funding of the County Board Matching program with projections through FY 1984.



AGRICULTURAL PREMIUM FUND  
COUNTY MATCH

<u>Year</u>	<u>County Sources</u>	<u>APF State Match</u>	<u>Change in APF Allocations Actual &amp; Estimated</u>	<u>Total Budget</u>
1977-78 <sup>1</sup>	\$2,144,400 (75%)	\$ 704,800 (25%)	\$	\$2,819,200
1978-79 <sup>1</sup>	2,288,500 (75%)	762,800 (25%)	58,000	3,051,300
1979-80 <sup>1</sup>	2,497,400 (70%)	1,070,300 (30%)	307,500	3,567,700
1980-81 <sup>2</sup>	2,546,700 (65%)	1,371,300 (35%)	283,300	3,918,000
1981-82 <sup>2</sup>	2,550,000 (60%)	1,700,000 (40%)	328,700	4,250,000
1982-83 <sup>3</sup>	2,600,000 (55%)	2,127,300 (45%)	427,300	4,727,300
1983-84 <sup>3</sup>	2,650,000 (50%)	2,650,000 (50%)	522,700	5,300,000

<sup>1</sup>Numbers reflect actual allocations received from counties and matched with APF funds.

<sup>2</sup>Numbers reflect estimates contained in University of Illinois FY 1982 request.

<sup>3</sup>FY 1983 and beyond are forecasts based on annual increases in county sources of 2% per year.

AREA EXTENSION ADVISERS  
(\$68,000)

The delivery system of the Cooperative Extension Service, in terms of permanent professional staff, consists of 360 full-time county advisers supervised by regional directors and 142 state staff who are members of various academic departments of the Urbana-Champaign campus. The county staff members conduct direct educational programs in four program areas-- agriculture, home economics, 4-H and youth development, and community resource development. The state specialists prepare educational materials for the county staff, do some direct teaching of extension clientele, and work in collaboration with their research colleagues on major problems affecting agriculture, the home, youth, and Illinois communities.

It has been necessary to supplement this staff with equally qualified persons who serve in the role of area advisers. These staff members have expertise in selected subject-matter fields and provide a capability to CES to concentrate on specific problems in a particular geographical region. This function cannot be accomplished by state specialists who program for the entire State, or by county advisers who must serve primarily as generalists. Currently, there are 23 area adviser positions on the CES staff who generally are housed in the offices of the CES regional directors and who are responsible for working directly with extension clientele in designated multi-county areas. They also provide assistance in their area of expertise to county staff. The academic departments are responsible for the authority of the subject-matter taught. Area advisers are brought to the campus several times each year for inservice training and assistance from the academic departments.

The present staff includes four livestock advisers who serve six of ten regions in the State. The addition of one more area adviser will complete the staffing pattern for this subject-matter area and will provide coverage for the remaining areas of the State not presently serviced where area livestock educational services are needed. This last position will be headquartered in Benton, Illinois, to serve the southern part of the State.

Currently there are no area advisers in communications. There is a great need, particularly in northeastern Illinois, for an area adviser with expertise in that field. Such an individual would assist county staff, particularly with regard to the use of mass media, in distributing information to people in this heavily populated region of the State. This staff member would be stationed near Chicago to provide on-site assistance and would work closely with personnel attached to the Office of Agricultural Communications at Urbana-Champaign.

Funds amounting to \$68,000 are requested to add these two area advisers, and to provide appropriate support staff, equipment, and expenses.

RESOURCE DEVELOPMENT IN SOUTHERN ILLINOIS  
(\$275,000)

The thirty-four counties in the southern part of Illinois tend to be economically disadvantaged in comparison to the rest of the State. This is true in terms of size and productivity of farms, farm income, employment opportunities, adequate housing, educational attainment, and community services and facilities. The recent reversal of the long trend in population out-migration, the growing importance of the coal industry, and growth in recreation and tourism point to the potential of the area for future growth and development. The challenge of southern Illinois is to find ways to deal with the persistent social and economic problems related to low incomes while capitalizing on the growth opportunities that are potentially available to residents, businesses and local governments.

The College of Agriculture intends to expand and improve its services to the people in southern Illinois by dramatically increasing the number of Cooperative Extension Service area advisers who serve that portion of the State. An enlarged professional staff assigned by the University to focus full attention on the area has the potential to achieve significant and quantifiable improvements there.

The Illinois Cooperative Extension Service currently has a professional staff of 360 county advisers, 142 campus-based faculty positions, and 23 area adviser positions (not counting 32 positions dedicated to assistance with the several farm business farm management associations). The staff conducts educational programming of a problem-solving nature in four program areas--resource development, agriculture and natural resources, home economics and family development, and 4-H and youth development. The field staff assigned currently by CES to work in the 34 southern Illinois counties numbers 100 people. This number includes 36.8 full-time equivalent positions in agriculture, 31.7 in home economics and 31.5 in youth. There are no CES professional staff in southern Illinois whose time is devoted exclusively, or in the main, to resource development concerns.

The CES campus-based staff prepares educational materials for the county and area staff, does some direct teaching of clientele, and works in collaboration with researchers on major problems. The county-based

staff works with clientele groups to identify problems, develop educational approaches to the solution of problems, and deliver and evaluate educational programming. Much of the work of county staff is one-on-one though staff members also do a significant amount of group teaching. County-based staff, by definition, must be generalists. However, they are expected to be quite knowledgeable in one or more sub-areas of their disciplines.

The area adviser component of the delivery system brings a needed level of specialization to the field staff. Area advisers are housed in the region they serve, and they provide assistance in their areas of expertise both to county staff and directly to clientele. They can concentrate on problems that are specific to the various regions of the State.

The Illinois Cooperative Extension Service is prepared to begin a substantially expanded problem-solving educational program if sufficient additional funds are available. The expanded educational program will address issues in farm productivity, small business management, rural health, community services, resource development, and recreation and tourism. Area advisers specializing in rural development or resource development will be employed to work with county staff and directly with clientele to develop and to deliver educational problem-solving activities and programs designed to accomplish a new direction of development in southern Illinois. County extension advisers and extension specialists now on the staff will cooperate and assist the new staff to accomplish the intended goals.

A total of \$275,000 is requested to hire 11 area advisers to implement this expanded program in FY 1983. Costs of secretarial assistance, office rent, travel, etc., will be covered through reallocations from extant resources within the Illinois Cooperative Extension Service.

COLOR VIDEO TAPE CAPABILITY FOR  
COOPERATIVE EXTENSION SERVICE PROGRAMMING  
ON THE TELENET SYSTEM  
(\$32,000)

Because travel costs have been increasing so rapidly, the Cooperative Extension Service (CES) has been endeavoring to improve its remote instruction capability, thereby reducing the travel that is presently required of its staff members. Funds are to be provided in FY 1982 to complete the TeleNet System, extending it to all 112 CES county and regional offices throughout the State. The TeleNet system presently has a sound-only capability relying on a dedicated telephone network. Its success to date has rested on the ability of CES to supplement it with colored slides and printed materials. CES would like to replace these materials with video tapes that would be comparable in quality to the programs its users see on television daily. Half-hour videotaped presentations would be made in various areas of the State and would be followed by discussions or question-and-answer sessions directed by an Urbana-based specialist via TeleNet.

Color video tape programs would also find widespread use and greatly enrich the programs of the 1,893 homemakers organizations with 41,000 members, and the 4,600 4-H Clubs with nearly 110,000 members. Most clubs and units meet in members' homes. Through color video tapes CES subject-matter specialists would be able to teach in members' living rooms without ever leaving Urbana-Champaign. Additionally, color video tapes could be used to provide packaged inservice training for county staff members by allowing them to learn new concepts and ideas at their own pace. This would eliminate much of the need for travel to the campus for training sessions and refresher courses.

A color video tape capability would mesh well with existing production equipment that has been provided for the undergraduate teaching program that is accommodated in the Office of Agricultural Communications. That Office already has audio recording and studio facilities, and its staff provide excellent art and still photography support. Any equipment purchased for the project would also compliment the equipment of the Office of Instructional Resources, the campus-wide instructional support unit.

CES proposes that 40 counties participate in a cooperative pilot effort that would provide them with the equipment to use color video tapes and with the tapes themselves. Over a three-year period the program would be expanded to include 80 counties. Each participating county would contribute \$1,250 plus the costs related to maintaining its own tape library. The \$32,000 requested by CES in FY 1983 would represent the State's continuing commitment to this program.

FIRE SERVICE INSTITUTE  
(\$105,000)

Beginning in FY 1981 the University of Illinois received a direct appropriation from the Fire Prevention Fund for the operation of the Illinois Fire Service Institute. These funds were provided directly to the University pursuant to the provisions of Public Act 81-1147, the Illinois Fire Service Institute Act. Prior to the enactment of this legislation, the Fire Service Institute had been operated through a contract with the State Fire Marshall.

The monies received from the Fire Prevention Fund will be used for three major purposes:

1. To continue the ongoing programs of the Fire Service Institute, formerly operated through contractual arrangements with the State Fire Marshall.
2. To provide adequate teaching and training facilities for the Institute.
3. To permit program growth and improvement.

As detailed in the FY 1982 budget request, the need for adequate instructional and training facilities is acute. Current facilities are inadequate, office and classroom space is scattered across the Urbana-Champaign campus, and only one training facility, the Fire Tower, exists on the primary instruction site. Thus, after the operating needs of the current instructional programs have been met, the majority of new funds must be used to construct an adequate training facility. A modest amount of new funds will also be used for program growth and improvement, with major program development activities to follow, once sufficient facilities exist.

The capital budget portion of this document describes the capital project for a classroom/office building for the Fire Service Institute. Discussions are underway with the Capital Development Board and Illinois Board of Higher Education concerning the most effective way to use Fire Prevention Funds for the construction of this facility, and for other, much smaller construction and remodeling projects which will total an estimated \$3.5 million. The most desirable method appears to be completing the required construction and remodeling through the use of



Capital Development Bonds, with annual payments from the University's share of the Fire Prevention Fund used to retire the bonds. An annual payment of approximately \$300,000 to \$350,000 over a twenty-five year period would be adequate to pay for the \$3.5 million required, and would be feasible within the programmatic operation of the Institute.

Based upon the most recent projections from the Illinois Department of insurance, the following estimates for funds available to the University from the Fire Prevention Fund can be made:

(Dollars in Thousands)

	<u>FY 1981</u>	<u>FY 1982</u>	<u>FY 1983</u>	<u>FY 1984 &amp; Beyond</u>
Total Fund	\$3,400.0	\$5,500.0	\$6,600.0	5% growth
University Share	425.0	669.7	825.0	5% growth

Both the FY 1983 estimate and the projected growth rate of 5% are conservative estimates, and represent reasonable planning assumptions for consideration of a commitment to earmark \$300,000 to \$350,000 for debt retirement.

Based on the funds available and the need for facilities improvements and modest program growth, it now appears that the FY 1983 budget for the Fire Services Institute can be divided as follows:

<u>Purpose</u>	<u>Approximate Amounts</u>
1. Provide for continuing support of current Fire Service Institute programs, excluding retirement	\$ 387.7
2. Provide program growth for 2 FTE faculty members and .5 FTE nonacademic support person, plus additional program support funds	95.0
3. Provide for initial debt retirement payment and other facilities costs	305.4
4. Total Fire Prevention Funds excluding retirement	788.1
5. Total Incremental Funds, excluding retirement (FY 1983 - FY 1982)	140.2
6. Incremental Funds for Expanded Programs and Facilities	105.0
7. Retirement	36.9
8. Total FY 1983 Fire Prevention Fund (4 + 7)	825.0

OFFICE OF REAL ESTATE RESEARCH  
(\$29,000)

The Office of Real Estate Research (ORER) has three primary functions:

1. It undertakes and fosters research on problems related to real estate in the State of Illinois.
2. It communicates the results of applied research to the consumers and producers of real estate services through publications and professional education activities.
3. It promotes the ongoing development of real estate education at the University of Illinois at Urbana-Champaign.

The ORER was created in the spring of 1980 as a project in the Bureau of Economic and Business Research which is, in turn, within the College of Commerce and Business Administration at the University of Illinois at Urbana-Champaign. For its first fifteen months of operation, the ORER was funded by grants from the Illinois Real Estate Educational Foundation (REEF), an arm of the Illinois Association of Realtors. Beginning in FY 1982 its operations have been financed by a special fund in the State Treasury, the Real Estate Research and Education Fund. Monies in this fund come from licensing fees paid by the real estate industry and from interest from the Real Estate Recovery Fund, and not from general tax revenues. The Real Estate Research and Education Fund was established during the 1981 session of the General Assembly under legislation sponsored by the Illinois Association of Realtors.

The sum of \$170,000 has been appropriated for FY 1982; and current projections indicate that approximately \$199,000 will be available for FY 1983. The efforts of ORER during the coming year will include presenting a real estate conference, conducting research projects on and off campus, printing and distributing research results, further developing real estate courses, initiating a visiting lecturer series; purchasing office equipment and computer terminals, producing and distributing promotional materials, traveling to professional meetings and to similar organizations in other states, recruiting staff, and setting and attending regular meetings of a new, broadly-based, Advisory Committee.

In FY 1983, after the Office has been established and in operation for one year, all of the personnel have been hired, and the necessary operating procedures have been established, a major portion of the budget (\$95,000)

will be awarded on an annual basis to fund research proposals by faculty from various institutions of higher education throughout the State. The proposals will be judged by a special committee appointed by the Director of the Office. They will be funded on a merit basis, and the Advisory Committee will be informed of the funding assignments that are made.

The total budget for the ORER FY 1983 is shown below:

Academic Staff

.50 FTE Director	\$ 32,000
1.00 FTE Research Assistant	13,000
.50 FTE Professor	28,000

Nonacademic Staff

1.00 FTE Secretarial Staff	11,000
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Expenses

Research Awards	95,000
Publication Costs	10,000
Travel	6,000
Commodities	3,000
Telecommunications	<u>1,000</u>

TOTAL	\$199,000
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## APPENDIX

REALLOCATION OF IBA RENTAL APPROPRIATION  
TO THE SR<sup>3</sup> PROGRAM

The Space Realignment, Renewal and Replacement (SR<sup>3</sup>) concept provides a method for generating funds on a regular basis for the renovation of building components between periods of major structural remodeling. The University has emphasized the continuing need for these funds by giving high priority to SR<sup>3</sup> projects in annual capital budget requests over the past five years. This portion of the University's capital budget assumes added importance as facilities age and programs change, while overall enrollment levels remain stable. Although the State has supported the basic SR<sup>3</sup> formula, funds made available for SR<sup>3</sup> projects have varied each year, and the development of an alternate mechanism for funding this crucial program on a regular and recurring basis would be of major significance to the University and to the State of Illinois.

According to a special audit conducted by the Office of the Auditor General, the Illinois Building Authority (IBA) has accumulated funds in its Sinking Fund Reserve as a result of annual appropriations for IBA lease rental payments which have exceeded the amounts necessary to operate IBA and retire its indebtedness. The audit states that a number of fiscal policy alternatives, utilizing investment income derived from the Reserve balance, could permit reduction or elimination of lease payments allocated to State agencies for debt service and administrative costs of IBA projects. The adoption of such a policy implies a potential for reallocation of funds formerly required for these payments to meet related statewide facilities needs.

In response to the recommendations of the Office of the Auditor General, the State has chosen to pursue a policy termed "gross defeasance." Under this program, IBA will continue to collect lease rental payments until sufficient funds are accumulated to pay all remaining principal and interest through maturity of all bonds. Rental payments are projected to cease as of February 1983. Since the total

reserve will exceed the aggregate outstanding debt by 1984, interest earnings on the escrowed bond issue accounts will contribute to a wind-fall which could eventually be returned to the State.

Initially, the FY 1982 appropriation requests for IBA lease rental payments totaled \$37.6 million for all participating institutions. The projected rental collection for FY 1982 is only \$29.9 million under gross defeasance. The State therefore netted a surplus of approximately \$7.7 million in FY 1982. The final rental payment required in FY 1983 is estimated at \$21.5 million which would release additional funds for other uses. The entire rental amount will become available in subsequent fiscal years.

Since the IBA was created as a mechanism for financing the construction of physical facilities for the State, reallocation of former IBA rentals to finance the ongoing SR<sup>3</sup> program is a prudent means of protecting the State's investment in its physical plant. Should the State develop such a policy of realigning public assets to meet current fiscal priorities, it is hoped that the funds will remain with the institutions as recurring appropriations for the designated program area.

APPENDIX II

RETIREMENT

Beginning in FY 1979 a significant improvement in the financing of the State Universities Retirement System (SURS) was achieved when the annual amount for incremental funding was increased from the "net payout" level to the "gross payout" level. In essence this improvement meant that instead of providing funds sufficient to cover only costs of pensions for employees already retired ("net payout") the State provided funds for those costs plus an additional amount equal to the withdrawals of the retirees from their accounts ("gross payouts"). In FY 1980, a further improvement in retirement funding was achieved, when the SURS appropriation provided funds beyond the gross payout level by one-half percent of the total payroll for covered employees.

The gross payout level of funding was maintained in FY 1981. The Retirement funding approved by the General Assembly for FY 1982 was also at the gross payout level. However, a significant reduction in the Retirement appropriation was made at the time the legislation was approved by the Governor, in response to the need to reduce the total State budget by approximately \$250 million. The original SURS appropriation level for FY 1982 was \$71,763,700. This was reduced to \$44,493,500--a loss of \$27,270,200, which left the FY 1982 SURS appropriation some \$15.9 million below the Net Payout level, and reduced the ratio of assets to liabilities from approximately 54 percent in FY 1981 to approximately 50 for FY 1982.

The progress achieved in improving SURS funding during FY 1979-81 was encouraging, as reflected by the increase of the ratio of assets to liabilities from 48 percent in FY 1978 to 54 percent in FY 1981. Most of that progress was erased by the FY 1982 reduction. Clearly it will be necessary to restore SURS funding to a level which maintains the fiscal viability and integrity of SURS as soon as possible.

It is a matter of long-standing policy of the Board of Trustees of the University of Illinois that the request for incremental funds for Retirement be set at the amount needed to achieve the statutory funding level. The University's FY 1982 retirement appropriation is \$22,797,900. Based upon data from SURS, the statutory funding level for FY 1983 is \$73,851,600. Therefore, an increment of \$51,053,700 is requested.



APPENDIX III

BASES AND CALCULATIONS FOR  
CONTINUING COMPONENTS INCREASES  
(Dollars in Thousands)

I. Compensation Improvement

- A. FY 1981 Personal Services Base: \$278,676.1
- B. FY 1982 Personal Services Base: \$299,302.2
- C. Calculations for FY 1983 Incremental Amount
  - 1. Annualization of "normal" two months:  
 $\text{FY 1981 Base} \times .95 \times 10\% \times 2/12 =$   
 $\$278,676.1 \times .95 \times 10\% \times 2/12 =$  \$ 4,412.4
  - 2. Annualization of balance of 4 months of  
midyear 2% increase  
 $\text{FY 1981 Base} \times .95 \times 2\% \times 4/12$   
 $\$278,676.1 \times .95 \times 2\% \times 4/12 =$  \$ 1,764.9
  - 3. Total Annualization (1 + 2) = \$ 6,177.3
  - 4. Regular Compensation Increase = 8%  
 $(\text{FY 1982 Base} + \text{Annualization}) \times .95 \times 8\% \times 10/12$   
 $(\$299,302.2 + \$6,177.3) \times .95 \times 8\% \times 10/12 =$  \$19,347.0
  - 5. Supplemental 2% Catch-Up Increase for 1/2 year  
 $(\text{FY 1982 Base} + \text{Annualization}) \times .95 \times 2\% \times 6/12$   
 $(\$299,302.2 + \$6,177.3) \times .95 \times 2\% \times 6/12 =$  \$ 2,902.1
  - 6. Total Compensation Request (3 + 4 + 5) = \$28,426.4

II. General Price Increases

- A. FY 1982 Base \$45,816.5
- B. FY 1983 Percentage Increase = 8.5%
- C. Calculation:  $\$45,816.5 \times 8.5\% = \$3,894.4$
- D. Note: General Price Increase Base includes the following  
objects of expenditure: Contractual Services; Travel;  
Commodities, Telecommunications; Operation of Auto Equipment;  
Awards and Grants; Equipment; Artificial Appliances; Hospital  
and Medical Services; and Permanent Improvements, less the  
amounts for Utilities and Library Acquisitions.

III. Utilities Price Increase

- A. FY 1982 Base = \$27,912.5
- B. FY 1983 Percentage Increase = 18%
- C. Calculation =  $\$27,912.5 \times 18\% =$  \$ 5,024.3

IV. Library Acquisitions

- A. FY 1982 Base = \$ 5,374.3
- B. FY 1983 Percentage Increase = 20%
- C. Calculation =  $\$5,374.3 \times 20\% =$  \$ 1,074.7

PART III

FISCAL YEAR 1983 CAPITAL BUDGET REQUEST

UNIVERSITY OF ILLINOIS  
CAPITAL BUDGET REQUEST  
FY 1983

Introduction

The University's FY 1983 Capital Budget Request is comprised of three major segments: (1) Regular, (2) Energy Conservation/Fuel Conversion, and (3) Food for Century III. The Regular segment of the request includes remodeling, renovation and construction projects necessary to support the University's ongoing programmatic activities. The Energy Conservation/Fuel Conversion segment represents a special effort initiated in FY 1981 to help control spiraling energy costs through retrofit improvements to the building and mechanical systems. The third segment of the request consists of those projects considered essential to the continued progress of the Food for Century III program. The total request for the major budget segments in FY 1983 is \$52,060,500. In addition to the projects contained in the major budget segments, the University's FY 1983 request includes two projects that merit separate consideration from the standard capital requests. Due to the unusual circumstances surrounding the proposed use and funding of these projects, they will be categorized as "Special" capital projects in the budget request documents.

This section of the document presents a description of the regular segment of the FY 1983 Capital Budget Request. The Energy Conservation/ Fuel Conversion segment is presented in a separate section immediately following the regular request documentation. Special capital projects comprise the final segment in this document. A separate request document has been prepared to describe the University's FY 1983 Food for Century III Program.

Each project in the request has been reviewed by the campus and University administration and integrated into a set of University capital budget priorities for Regular Capital, Energy Conservation/Fuel Conversion, and Food for Century III. The priority lists represent an assessment of the relative need for each project as compared to other capital projects. In addition, the combined priority lists reflect a level of funding which meets the University's highest priority needs, yet is realistic and defensible in light of existing economic conditions.

Emphasis of the FY 1983 Regular Capital Budget Request

Table 1 presents a summary of the proposed projects for FY 1983 in priority order. The first priority project for the University involves a major upgrading of the Chicago Circle library. Planning funds are requested to complete architectural and engineering specifications for a major renovation of the main library building. After 15 years of operation, this facility must undergo significant physical modifications if it is to continue to serve the campus effectively. Changes in academic program mix and the initiation of evening programs have altered the patterns of library use. The need to realign the existing space configuration whereby the major service areas are on the first floor and the more specialized services are located on the upper floors makes a major renovation project the preferred solution to the Chicago Circle library problem.

Remodeling funds are requested in conjunction with the Chicago Circle library planning project to relocate the Office of Admissions and Records which currently occupies library space. Once this unit is relocated, valuable library space can be returned to its intended function.

Five of the next six projects show the University's emphasis on remodeling instructional space to better suit the programmatic needs of the units housed in the areas while maintaining essential campus facilities. Included in these projects are: the third phase of a multi-phased project to renovate completely the English Building; planning for installing air conditioning and improving the ventilation in the Pharmacy Building; the second phase of remodeling space in the Hospital Addition that was vacated upon occupancy of the Replacement Hospital; upgrading electrical service to the Roosevelt Road Building which houses the central computer system for the University; and planning the repair and rehabilitation of the Auditorium roof.

The priority list has been revised since July to include acquisition of the Easter Seal Building as priority 5. Located in the Medical Center District, the building will house the personnel services offices of both the Medical Center and Chicago Circle campuses.

Project priorities 9 through 13 and 17 through 20 compose the Space Realignment, Renewal, and Replacement request for FY 1983. These projects are necessary to preserve the structural integrity of the University's physical plant and to meet program related space realignment requirements.

Inclusion of the remaining projects exhibits the need for the construction of a facility for the handling of chemical and radioactive waste, a replacement facility for a rapidly deteriorating pilot training structure, and planning for a Television Building Addition for units currently in space at five separate locations.

Table 2 presents a breakdown of the FY 1983 capital projects by budget category and campus. The generation of SR<sup>3</sup> amounts for each campus is presented in Table 3 and a list of actual campus SR<sup>3</sup> projects appears in Table 4. The cost per square foot on new building and major remodeling projects are given in Table 5. Table 6 shows the future implications of projects requested for FY 1983.

#### Status of Ongoing Projects

Table 7 provides a summary of the actions on capital budget requests from FY 1976 to FY 1980. Excluding special projects such as the Replacement Hospital and Food for Century III, the University has not received substantial State support in any year but FY 1976, as measured by the proportion of funds appropriated compared to the total requested.

The University's capital appropriation (new projects) for FY 1981, excluding Food for Century III totalled \$9,889,800 and 100% of the appropriation has been released by the Governor. The status of these projects is shown in Table 8. Table 9 shows the status of all building and major remodeling projects. Table 10 provides a list of regular capital projects included in Senate Bill 345 for FY 1982. At the time this publication went to press, the bill was awaiting the Governor's approval.

Detailed descriptions of each campus' FY 1983 request are presented in the following section. Preceding each campus' project descriptions is a table summarizing the request by budget category. Additional sections for Energy Conservation/Fuel Conversion and Special Facilities follow the Regular Capital section.

TABLE 1  
UNIVERSITY OF ILLINOIS  
FY 1983 CAPITAL BUDGET REQUEST PRIORITY LIST

Priority Number	Campus	Project	Budget Category	Project Cost	Cumulative Total	Chicago Circle	Medical Center	Urbana-Champaign
1	CC	Library Improvements	PLAN	\$ 320,000	\$ 320,000	\$ 320,000		
2	CC	Relocate Office of Admissions & Records	REMD	1,150,700	1,470,700	1,470,700		
3	UC	English Building Renovation	REMD	2,720,000	4,190,700			\$2,720,000
4	MC	Pharmacy Building Remodeling	PLAN	347,000	4,537,700		\$ 347,000	
5	MC	Acquisition - Easter Seal Building	LAND	350,000	4,887,700		697,000	
6	MC	Hospital Addition Remodeling	REMD	2,796,000	7,683,700		3,493,000	
7	GU	Electrical Upgrade - Roosevelt Bldg.	REMD	533,100	8,216,800	2,003,800		
8	UC	Auditorium Remodeling	PLAN	100,000	8,316,800			2,820,000
9	CC	SR <sup>3</sup> - 1	REMD	714,300	9,031,100	2,718,100		
10	CC	SR <sup>3</sup> - 1 Equipment	EQUIP	224,800	9,255,900	2,942,900		
11	MC	SR <sup>3</sup> - 1	REMD	1,325,000	10,580,900		4,818,000	
12	UC	SR <sup>3</sup> - 1	REMD	2,774,700	13,355,600			5,594,700
13	UC	SR <sup>3</sup> - 1 Equipment	EQUIP	221,500	13,577,100			5,816,200
14	UC	Chemical Waste Storage Facility	BLDG	231,200	13,808,300			6,047,400
15	UC	Pilot Training Facility	BLDG	1,482,900	15,291,200			7,530,300
16	UC	Television Building Addition	PLAN	470,000	15,761,200			8,000,300
17	CC	SR <sup>3</sup> - II	REMD	960,000	16,721,200	3,902,900		
18	MC	SR <sup>3</sup> - II	REMD	1,391,000	18,112,200		6,209,000	
19	UC	SR <sup>3</sup> - II	REMD	2,570,800	20,683,000			10,571,100
20	UC	SR <sup>3</sup> - II Equipment	EQUIP	153,000	20,836,000			10,724,100

TABLE 2  
SUMMARY OF THE FY 1983 CAPITAL BUDGET REQUEST  
BY CAMPUS AND CATEGORY

<u>Category</u>	<u>Chicago Circle</u>	<u>Medical Center</u>	<u>Urbana-Champaign</u>	<u>Total</u>
1. Buildings, Additions, and/or Structures			\$ 1,714,100	\$1,714,100
2. Land		\$ 350,000		350,000
3. Equipment				
3a. SR <sup>3</sup> Equipment	\$ 224,800		374,500	599,300
4. Utilities				
5. Remodeling	1,683,800*	2,796,000	2,720,000	7,199,800
5a. Space Realignment, Renewal, and Replacement	1,674,300	2,716,000	5,345,500	9,735,800
6. Site Improvements				
7. Planning	320,000	347,000	570,000	1,237,000
TOTAL	\$3,902,900	\$6,209,000	\$10,724,100	\$20,836,000

\*Includes a General University project @ \$533,100.

TABLE 3  
GENERATION OF FY 1983 SR<sup>3</sup> REQUEST  
BY CAMPUS

	<u>Chicago Circle</u>	<u>Medical Center</u>	<u>Urbana-Champaign</u>
1. Estimated Replacement Cost of Facilities, January 1981 (Total Unadjusted Replacement Cost)	\$264,412,100	\$332,484,996	\$911,557,996
2. Estimated Replacement Cost of Facilities, January 1983 (Step 1 escalated 18% per year from January 1981 to January 1983)	\$359,600,456	\$452,179,595	\$1,239,718,875
3. Gross Area (Total GSF)	3,235,301	3,759,067	11,001,343
4. Average Cost per GSF (Step 2 ÷ Step 3 = \$/GSF)	\$111.15	\$120.29	\$112.69
5. Annual Space Rehabilitation and Remodeling Generation [\$/GSF (Step 4) x .667 (2/3 to be remodeled) x .01 (one time/100 years)]	.7414	.8023	.7516
6. Area of Campus Maintained by Physical Plant with State Funds, Fall 1983	2,943,769	3,951,042	8,810,492
7. Funds to be Generated at Campus (Step 5 x Step 6)	\$2,182,510	\$3,169,921	\$6,621,966
8. Total Funds Including Architect/Engineer Fees and Contingency (Multiply Step 7 by 1.195)	\$2,608,099 (18.2%)	\$3,788,056 (26.5%)	\$7,913,249 (55.3%)
	<div style="border-top: 1px solid black; border-left: 1px solid black; border-right: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="text-align: center; border-top: 1px solid black; border-left: 1px solid black; border-right: 1px solid black; padding-top: 5px;"> \$14,309,404 (100.0%) </div>		



TABLE 4  
FY 1983 SR<sup>3</sup> PROJECTS BY CAMPUS

CHICAGO CIRCLE		
Project	Remodeling	Amount
I	Lighting Modification - Lecture Center Science and Engineering Laboratories Remodeling - Phase II	\$ 239,900 474,400
	Handicapped Accessibility - Phase II and Partial Phase III	327,300
II	Exterior Masonry Repairs, Phase IV - Service Building and Art & Architecture Building Roof, Penthouse, Gutter and Drain Repair - Phase III	365,800 266,900 \$1,674,300
	Equipment	
	Science and Engineering Laboratories Remodeling	\$224,800 \$224,800

MEDICAL CENTER		
Project	Remodeling	Amount
I	Exterior Masonry and Tuckpointing, Part 1 Remodel Rooms 576-581, COMET, Anatomy Remodel Tenth Floor, COMET, CED	\$ 220,000 173,000 354,000
	Air Condition 1919 W. Taylor Street, Part 1 Air Condition 1919 W. Taylor Street, Part 2	578,000 255,000
II	Exterior Masonry and Tuckpointing, Part 2 Remodel Rooms 560-570A, COMET, Anatomy Remodel Room 200, Pharmacy Remodel Second and Third Floor Ortho, Nursing	178,000 208,000 408,000 342,000 \$2,716,000

URBANA-CHAMPAIGN		
Project	Remodeling	Amount
	Accessibility Improvements College of Commerce Remodeling Agricultural Engineering Research Lab Remodeling Sprinkler Systems Animal Room Improvements Roger Adams Lab Remodeling Stair Enclosures Classroom Renovation Visual Arts Laboratory Loomis Laboratory Remodeling Boneyard Overflow Protection Elevator Installations	\$ 170,600 199,800 414,000 418,700 127,000 191,700 442,600 175,000 300,500 93,100 48,200 193,500
I	Noyes Lab - Fume Hood Improvements Library Stacks Smoke Detection Ceramics Building Remodeling Astronomy Building Remodeling	251,500 312,800 374,800 278,600
II	Roof Replacements Huff Gym Basement Remodeling Elevator Replacement Davenport Hall - Geography Remodeling Natural History Building Remodeling	481,400 298,900 152,200 305,400 115,200 \$5,345,500

Equipment		
	College of Commerce Remodeling Agricultural Engineering Research Lab Remodeling Animal Room Improvements Classroom Renovation Visual Arts Laboratory Ceramics Building Remodeling Astronomy Building Remodeling Huff Gym Basement Remodeling Davenport Hall - Geography Remodeling	\$ 30,000 10,000 42,500 32,000 107,000 60,000 21,000 22,000 50,000 \$374,500

SUMMARY

Remodeling			
CC: Part I =	\$714,300	Part II =	\$960,000
MC: Part I =	\$1,325,000	Part II =	\$1,391,000
UC: Part I =	\$2,774,700	Part II =	\$2,570,800
Equipment			
CC: Part I =	\$224,800		
UC: Part I =	\$221,500	Part II =	\$153,000

TABLE 5  
COST PER SQUARE FOOT OF NEW BUILDING AND MAJOR REMODELING PROJECTS BY CAMPUS

<u>Category/Project (By Campus)</u>	<u>Project Cost</u>	<u>Gross Square Feet</u>	<u>Assignable Square Feet</u>	<u>Efficiency ASF/GSF</u>	<u>\$/GSF</u>	<u>\$/ASF</u>
<u>Chicago Circle Campus</u>						
Major Remodeling (FY 1983 Request) Relocate OAR	\$1,150,700	29,604	16,855	.57	\$38.87	\$68.27
<u>Medical Center Campus</u>						
Major Remodeling (FY 1983 Request) Hospital Addition Remodeling	\$2,796,000		85,600*			\$32.66
<u>Urbana-Champaign Campus</u>						
<u>New Buildings</u>						
Chemical Waste Storage Facility	\$231,200	2,760	2,300	.83	\$83.77	\$100.52
Pilot Training Facility	\$1,482,900	10,200	8,500	.83	\$145.38	\$174.46
Major Remodeling (FY 1983 Request)						
English Building Renovation	\$2,720,000		17,990*			\$151.20

\*Figure only reflects area of building affected by the remodeling project.

TABLE 6  
FUTURE IMPLICATIONS OF PROJECTS IN FY 1983 CAPITAL BUDGET REQUEST

Campus	Project	Budget Category <sup>1</sup>	Request FY 1983	Additional Costs	
				FY 1984	FY 1985
CC	Library Improvements	PLAN	\$ 320,000	\$4,693,300	
CC	Relocate Office of Admissions & Records	REMD	1,150,700		
UC	English Building Renovation	REMD	2,720,000		
MC	Pharmacy Building Remodeling	PLAN	347,000	3,938,000	
MC	Acquisition - Easter Seal Bldg.	LAND	350,000		
MC	Hospital Addition Remodeling	REMD	2,796,000		
GU	Electrical Upgrade - Roosevelt Bldg.	REMD	533,100		
UC	Auditorium Remodeling	PLAN	100,000	1,012,000	
CC	SR <sup>3</sup> - 1	REMD	714,300		
CC	SR <sup>3</sup> - 1 Equipment	EQU	224,800		
MC	SR <sup>3</sup> - 1	REMD	1,325,000		
UC	SR <sup>3</sup> - 1	REMD	2,774,700		
UC	SR <sup>3</sup> - 1 Equipment	EQU	221,500		
UC	Chemical Waste Storage Facility	BLDG	231,200		
UC	Pilot Training Facility	BLDG	1,482,900	121,000	
UC	Television Building Addition	PLAN	470,000	7,121,200	\$200,000
CC	SR <sup>3</sup> - II	REMD	960,000		
MC	SR <sup>3</sup> - II	REMD	1,391,000		
UC	SR <sup>3</sup> - II	REMD	2,570,800		
UC	SR <sup>3</sup> - II Equipment	EQU	153,000		
TOTAL			\$20,836,000	\$16,885,500	\$200,000

<sup>1</sup>Budget category for FY 1983 is given.

TABLE 7  
HISTORY OF RECENT CAPITAL BUDGET REQUESTS

	<u>FY 1976</u>	<u>FY 1977</u>	<u>FY 1978</u>	<u>FY 1979</u>	<u>FY 1980</u>	<u>FY 1981</u>	<u>FY 1982</u>
<u>Campus Requests</u>							
Chicago Circle	\$ 8,447,100	\$10,939,113	\$12,775,128	\$ 7,788,520	\$ 4,439,095	\$ 6,518,400	\$ 3,469,700
Medical Center	8,146,300	7,227,319	10,731,019	12,409,965	12,889,300	15,017,600	6,022,000
Urbana-Champaign	23,152,700	16,001,929	26,609,843	16,937,056	15,795,600	20,782,400	19,236,400
Total	(\$39,746,100)	(\$34,168,361)	(\$50,115,990)	(\$37,135,541)	(\$33,123,995)	(\$42,318,400)	(\$29,175,600)
<u>IBHE Recommendations</u>							
Chicago Circle	\$ 1,109,320	\$ 9,699,428	\$ 3,203,420	\$ 3,311,200	\$ 1,810,400	\$ 3,271,300	\$ 2,505,400
Medical Center	5,640,000	4,228,342	4,878,227	5,111,500	4,489,800	4,103,200	1,781,000
Urbana-Champaign	9,951,100	5,203,520	11,887,700	13,524,100	9,144,500	11,446,900	12,776,900
Total	(\$16,700,420)	(\$19,131,290)	(\$19,969,347)	(\$21,946,800)	(\$15,444,700)	(\$18,821,400)	(\$17,063,300)
<u>Appropriation*</u>							
Chicago Circle	\$ 1,504,920	\$ 177,500	\$ -0-	\$ 1,715,000	\$ 1,710,400	\$ -0-	\$ 781,800***
Medical Center	4,907,200	148,400	296,800	2,430,900	1,336,600	225,000	1,291,000***
Urbana-Champaign**	10,982,900	234,130	1,273,600	4,440,500	2,252,700	919,000	9,718,500***
Total	(\$17,395,020)	(\$ 560,030)	(\$ 1,570,400)	(\$ 8,586,400)	(\$ 5,299,700)	(\$ 1,144,000)	(\$11,791,300)***
<u>Appropriations for Special Projects</u>							
Replacement Hospital	\$51,250,000	\$ -0-	\$ 6,000,000	\$ -0-	\$ -0-	\$ -0-	\$ -0-
Food Production Research	-0-	-0-	2,450,000	28,715,700	4,329,000	4,045,000	1,000,000***
Energy Conservation						8,745,800	2,085,700***
Total	(\$51,250,000)	(\$ -0- )	(\$ 8,450,000)	(\$28,715,700)	(\$ 4,329,000)	(\$12,790,800)	(\$ 3,085,700)***
<u>Total University of Illinois</u>							
Appropriation	\$68,645,020	\$ 560,030	\$10,020,400	\$37,302,100	\$ 9,628,700	\$13,934,800	\$14,877,000***

\*Excludes Replacement Hospital, Food Production Research and Energy Conservation.

\*\*The FY 1979 figure includes \$110,000 for a Capital Project appearing in SB 1524

\*\*\*Based on projects included in SB 345.

TABLE 8  
STATUS OF FY 1981 CAPITAL APPROPRIATIONS (NEW)  
As of June 1, 1981

	Amount Appropriated	U of I Requested	Release of Funds	
			CDB Action	Governor Released
<u>Chicago Circle</u>				
-----	--	--	--	--
<u>Medical Center</u>				
Equipment: (\$225,000)				
1) Second Unit - DMP Bldg.	\$ 225,000	12-11-80	\$ 225,000/02-11-81	\$ 225,000/04-14-81
Energy Conservation: (\$534,400)				
1) Bldg. Equip. Automation - Dentistry Bldg.	157,000	11-21-80	157,000/02-11-81	157,000/03-12-81
2) Bldg. Equip. Automation - Medical Sciences Addition	147,700	11-21-80	147,700/02-11-81	147,700/03-12-81
3) Bldg. Equip. Automation - Eye & Ear Infirmary	138,400	11-21-80	138,400/02-11-81	138,400/03-12-81
4) Bldg. Equip. Automation - Ben. Goldberg Center	91,300	11-21-80	91,300/02-11-81	91,300/03-12-81
<u>Urbana-Champaign</u>				
Equipment: (\$79,000)				
1) English Bldg. - Phase II	79,000	12-15-80	79,000/02-11-81	79,000/05-05-81
Planning: (\$840,000)				
1) Library Sixth Stack Addition	840,000	9-23-80	663,700/10-09-80	663,700/12-04-80
Energy Conservation: (\$1,311,400)				
1) Seal Ventilation Ducts - Two Buildings	32,100	9-23-80	32,100/10-09-80	32,100/12-04-80
2) Digital Computer Lab - Process Cooling with Outside Air	128,400	9-23-80	128,400/10-09-80	128,400/12-04-80
3) Steam Absorption Machine Control - Nine Buildings	397,100	9-23-80	397,100/10-09-80	397,100/12-04-80
4) Steam Absorption Machine Control - Nine Buildings	497,600	9-23-80	497,600/10-09-80	497,600/12-04-80
5) Steam Absorption Machine Control - E. E. Building	64,200	9-23-80	64,200/10-09-80	64,200/12-04-80
6) Steam Absorption Machine Control - Three Buildings	192,000	9-23-80	192,000/10-09-80	192,000/12-04-80
Fuel Conversion: (\$6,900,000)				
1) Abbott Power Plant	6,900,000	8-19-80	6,900,000/09-04-80	6,900,000/10-30-80

TABLE 9  
STATUS OF BUILDING AND MAJOR REMODELING PROJECTS  
(As of July 15, 1981)

Project	Year Authorized	Estimated Cost	Estimated Completion	Status
Chicago Circle Building Equipment Automation	1979	\$ 1,010,000	1/82	75% complete
Medical Center SUDMP Remodeling	1979	1,339,500	10/81	80% complete
Urbana-Champaign Energy Management System	1979	710,000	9/81	85% complete
Library Sixth Stack	1981	840,000	10/81	Construction Documents Phase
Abbott Power Plant	1981	6,900,000	2/84	Phase I - Contract awarded. Phase II - Bids anticipated 10/81.
Food for Century III Agricultural Engineering Sciences Bldg.	1979	10,912,900*	3/83	Contracts awarded
Veterinary Medicine Basic Sciences Bldg.	1979	21,027,800*	8/82	65% complete
Veterinary Medicine Research Bldgs. (4,5,6)	1980	909,000*	12/81	65% complete
Swine Research Center	1980	1,742,400*	10/81	55% complete
Meat Science Laboratory - Phase II	1980	1,026,000	9/81	65% complete
Western Illinois Ag. Research Center	1980	503,100	11/81	Land acquisition complete. Bids anticipated 8/81.

\*Construction Funds.

TABLE 10  
FY 1982 REGULAR CAPITAL PROJECTS IN SB 345  
AS SENT TO THE GOVERNOR

<u>Projects</u>	<u>Estimated Cost</u>
1. Buildings, Additions, and/or Structures Urbana-Champaign - Library Sixth Stack Addition	\$ 9,577,000
2. Land	0
3. Equipment	0
3a. Equipment Related to Space Realignment, Renewal, and Replacement Projects	0
4. Utilities Urbana-Champaign - Library Sixth Stack Addition	141,500
5. Remodeling and Rehabilitation	0
5a. Space Realignment, Renewal, and Replacement Chicago Circle Medical Center	781,800 1,291,000
6. Site Improvements	0
7. Planning	0
 TOTAL	 \$11,791,300

CHAPTER TWO

DETAILS OF THE FY 1983 CAPITAL BUDGET REQUEST



## CHICAGO CIRCLE

The FY 1983 Capital Budget Request consists of five projects, excluding energy conservation projects and a remodeling project at the Roosevelt Road Building, for a total cost of \$3,369,800. The first priority for the campus and the University is planning for Library Improvements. Planning funds of \$320,000 will be requested for FY 1983 with the remodeling to occur in the following year. The purpose of the project is to improve the library collection and support services critical to campus academic programs.

In order for the remodeling of the Library to begin in FY 1984, it will be necessary to relocate the Office of Admissions and Records out of the Library to Jefferson and Henry Halls. Funds are required to remodel space in Jefferson and Henry Halls prior to the office relocation. The total project cost is \$1,150,700.

Two groups of Space Realignment, Renewal, and Replacement projects for a total cost of \$1,899,100 have been included in the request, also. The six projects from both groups are designed to repair and rehabilitate academic facilities and to increase the accessibility of campus buildings to the handicapped.

TABLE 1  
CHICAGO CIRCLE CAMPUS  
LIST OF FY 1983 PROJECTS BY CATEGORY

<u>Projects</u>	<u>Estimated Cost</u>
1. Buildings, Additions, and/or Structures	\$ 0
2. Land	0
3. Equipment	0
3a. Equipment Related to Space Realignment, Renewal, and Replacement Projects	224,800
4. Utilities	0
5. Remodeling and Rehabilitation	
Relocate OAR	\$1,150,700
Subtotal	(\$1,150,700)
5a. Space Realignment, Renewal, and Replacement	\$1,674,300
6. Site Improvements	0
7. Planning	
Library Improvements	\$320,000
Subtotal	(\$320,000)
 TOTAL FY 1983 CAPITAL BUDGET REQUEST - CHICAGO CIRCLE	 \$3,369,800

## EQUIPMENT

### SEL - Remodeling - College of Engineering - Phase II - (\$224,800)

Remodeling of the Science and Engineering Laboratories (SEL) is required to continue the development of doctoral and/or master programs for departments in the College of Engineering.

In FY 1976, \$200,055 was appropriated for the first phase of remodeling SEL. In FY 1983, another \$224,800 is necessary to implement phase two of the remodeling.

These equipment funds will provide for essential movable equipment to establish the graduate educational program for Energy Engineering, Information Engineering, and Materials Engineering in the remodeled space.

The following equipment is required:

1. Energy Engineering

- Chemical reaction laboratory, PH meters, x-y recorders
- Portable terminal
- Programmable digital voltmeter
- High capacity compressor and ancillaries
- Magnetic filter
- Ice maker
- Absorption refrigerator
- Particle counter and optics
- Indexing set with chuck and face plates
- Four (4) access boxes for 240V a.c. @ \$200
- ASTM engine accessories
- Shop and inclined coaxial microscopes

2. Information Engineering

- Microwave/Millimeterwave Imaging Facility (MMIF)
- One complete mm-wave set-up for imaging
- Electronically controlled rotary imaging platform

3. Materials Engineering

- 12 Channel myoelectric signal conditioning and recording unit (Grass, or equivalent)
- Lifting Device, LVDT's, Prestressing Jacks and Anchors, etc.
- Electronic Data Reduction System Time-Lapse Equipment

## REMODELING AND REHABILITATION

### Relocate Office of Admissions and Records from Library (\$1,150,700)

The Office of Admissions and Records must vacate space occupied in the Library Building, designed originally as library space, to allow the Library to expand and complete its remodeling program.

The new location for the Office of Admissions and Records will be Jefferson and Henry Halls, 929 and 935 West Harrison Street. Departments presently using the proposed space will be relocated to the newly acquired Formfit Building.

As proposed, the remodeling in Jefferson and Henry Halls includes approximately 16,000 NASF of existing floor space and approximately 1,000 square feet of floor space in the basement. Remodeling will consist of construction of an atrium connecting both halls, as well as a walkway between the third floors of each building. The existing walkway connecting the second floors of the buildings will be covered by the atrium, also. An elevator will be located in the atrium to provide accessibility to handicapped persons and serve the staff of the Office of Admissions and Records.

The Office of Admissions and Records presently occupies 15,275 square feet of space in the Library. The combination of the need to move the Office of Admissions and Records from the Library, the need to keep it centrally located, and the availability of the Jefferson and Henry Halls space make this 16,000 square foot remodeling project an excellent alternative for relocation.

## SPACE REALIGNMENT, RENEWAL AND REPLACEMENT

### Lighting Modification - Lecture Center - (\$239,900)

The purpose of this proposal is to improve interior and exterior lighting levels in the Lecture Center.

Interior lighting. Inside the Lecture Center, substituting acrylic prismatic lenses for the existing plastic diffusers, coupled with installation of additional fixtures will supplement the present interior fluorescent lighting. This will provide higher, more acceptable lighting levels in the Lecture Halls.

Exterior lighting. Underneath the elevated walkway outside the Lecture Center Halls, there are 124 fluorescent lighting fixtures which require immediate replacement. Installing new fixtures will accomplish the dual purpose of providing adequate lighting levels for the security of the area, and bringing the lighting system up to a maintainable standard.

During Phase III of the exterior lighting program high pressure sodium lighting was installed in most exterior campus areas. Relative to this standard exterior lighting level, two areas of the campus remain dark. To correct this deficiency, a forty foot fixture near the SEL Building and two 25 foot fixtures near the SES Building are included in the current request.

### SEL - Remodeling College of Engineering - Phase II - (\$474,400)

The first phase of a multiphased remodeling of the College of Engineering Laboratories in the Science and Engineering Laboratories Building (SEL) funded in FY 1976 has been completed and occupied. The second phase of this project was requested in the FY 1977, FY 1978, FY 1979, FY 1980, FY 1981, and FY 1982 Capital Budgets. The scope of this year's request is a portion of the total program documented in FY 1976, and is a logical progression in the completion of this phased redevelopment of underutilized undergraduate laboratories to meet the needs of the growing graduate programs.

The amount of space to be remodeled in this phase has been carefully chosen to meet the pressing needs of graduate level teaching and research and to minimize the disruptive effect of remodeling activities taking place in the midst of ongoing academic enterprise.

The specific areas designed for FY 1983 funding are listed as follows:

<u>Department</u>	<u>Room</u>	<u>NASF</u>
Energy Engineering	3294	2684
	3294A	60
		(2744)
Information Engineering	3263	600
	3263A	300
	3263B	300
	3267	625
	3267A	625
	(2450)	
Material Engineering	1100D	350
	1100E	175
	1100F	175
	1100G	285
		(985)
Systems Engineering	4211	1902
		(1902)
TOTAL		(8,081)

Handicapped Accessibility - Phase II - (\$327,300)

The provisions of Section 504 of the Federal Rehabilitation Act of 1973 require that the educational programs of universities receiving federal support be accessible to the handicapped. This project is the second phase of a multi-phase program to increase the accessibility of all facilities on the Chicago Circle Campus. Examples of the work to be done include modifying sidewalk grades, construction of ramp entryways to various buildings, and modifying doorways to eliminate accessibility barriers. Work will be conducted at fourteen locations on campus.

Exterior Masonry Repairs - Phase IV - (\$365,800)

This project includes the repairs to the walls of the Services Building together with repairs to the Art and Architecture Building. The project will require the grinding out of mortar joints on exterior brick work, removal of weathered caulking, removal of bricks and stone where necessary, replacing flashing, replacing weeps, installing expansion joints where necessary, modifying shelf angles, tuckpointing where indicated, and re-caulking and reinstalling the exterior masonry removed during the project.

Roof Penthouse Gutter and Drain Repair - (\$266,900)

This project will provide for the repair and/or replacement of leaking roofs covering the Behavioral Sciences Building (including the roofs and sides of the mechanical equipment penthouses), the Science & Engineering Office Building and the Science & Engineering South Building. Gutters, drains, skylights, flashings, railings, walkways and mechanical equipment shelters are all to be inspected and repaired where necessary. "Exotic" designs that are difficult to maintain shall be re-studied, and conventional, long lasting, low maintenance details will be substituted.

The existing mechanical equipment penthouses on top of the Behavioral Sciences Building are covered with an Ethylene Propylene Polymer membrane roofing (Hypalon) that is weathering poorly. This membrane has required extensive repairs costing over \$8,000, and the damage to the rooms below has exceeded \$4,000 to date. The repairs are considered temporary, and constantly escalating costs forbid the repetition of this extensive maintenance.

The existing built up roofing on all three buildings requires at least a floodcoat restoration of the exposed surface together with flashing and counterflashing repairs. Elastomeric roofing, metal roofing, glazing, vents, parapets and louvers on all of the buildings are to be restored, replaced or re-designed as needed.

## PLANNING

### Library Renovation - (\$320,000)

This project will involve developing architectural and engineering design specifications for renovating the Library. The program for remodeling the Library can, for the purpose of explanation, be separated into three parts:

1. Found space, the recovery of space by a) filling in the remaining wells on the fourth floor; b) enclosing the balconies on the second, third, and fourth floors; c) designing library space in the north and south ends of the basement in space originally designed for mechanical equipment; d) remodeling space presently occupied by the Office of Admissions and Records but designed originally as Library space.
2. First floor remodeling
3. Second floor remodeling

With the completion of this remodeling program, the campus will have recovered all available space in the UICC library building.

### Found Space

Space found by enclosing the balconies on the second, third, and fourth floors will represent a gain of approximately 3,300 square feet per floor, or a total gain of 10,000 square feet. The space found by filling in the wells on the fourth floor will represent a gain of 2,400 square feet. Space on this floor will be used for patron seating and decreasing the stack deficiency by freeing an equivalent amount of space elsewhere in the building for additional bookstacks.

The areas to be remodeled in the basement will be used for the storage of manuscript and archival materials now stored in various locations inside and outside the Library. If space permits, the Staff Lounge will be re-located on the first floor and the basement space previously used as a lounge will be converted to materials storage. Compact shelving installations will be planned for these areas. Existing shelves will be used for expansion on other floors of the building.



Approximately 13,000 square feet will be recovered from OAR space on the first floor. The use of the space is described in the first floor remodeling.

The total found and remodeled space is about 31,850 NASF.

#### First Floor-Remodeling

The first floor will become the location for the most heavily used and basic public services--reserve books, current journals and newspapers, the circulation desk, and seats for studying one's own material between classes as well as for using library books and other media. Commuting students and faculty will be able to rapidly locate and use these vital services. These areas also will be designed to remain open while the rest of the building is closed. In other peripheral, but strategically located spaces, the appropriate technical service units will be grouped around the loading dock. The administrative offices and the personnel office will be located at the Morgan Street door.

#### Second Floor-Remodeling

The second floor of the Library is as important as the heavily used first floor. The second floor entrance will be closed and the front stairs leading to the first floor removed. Round tables and informal seating will be provided so as to create an attractive area for users.

The original reference counter will be removed, thereby allowing the reorganization of the reference and bibliographic collections on second floor north with accessibility for the reference librarians on duty at the information desks, the bibliographers in the Collections Development offices, and the staff members of the Cataloging Department. Offices for the reference librarians will also be provided in three locations surrounding the card catalog, the reference and bibliographic collections, and the information desks.

## MEDICAL CENTER CAMPUS

The Medical Center's FY 1983 Capital Budget Request was developed through discussions conducted by the Campus Planning Committee. It has been agreed that the principal need of the Medical Center is to upgrade the older buildings on the Chicago campus. It has become apparent that the deferred funding for remodeling funds over many years has contributed to deteriorated and obsolete facilities. Furthermore, it is believed that inadequate facility resources are contributing directly to problems of attracting and retaining high quality personnel and programs.

To confront the enormous task of renovating older buildings, an inventory of required improvements has been developed over several years. Many of the renovations are significant cost items, or provide services throughout a building, and are, therefore, incorporated in major remodeling requests. The first and third campus priorities for FY 1983 are such projects. For FY 1983, planning funds are requested to improve the air conditioning and ventilation system of the Pharmacy Building. Construction is scheduled for FY 1984. Renovation of space in the Hospital Addition that has been vacated due to occupancy of the Replacement Hospital is the second major remodeling project. In addition to major remodeling projects, the Medical Center is requesting funds for the purchase of the Easter Seal Building. The building will house personnel services offices from both the Medical Center and Chicago Circle campuses.

Other improvements comparatively minor in scope are requested as Space Realignment, Renewal and Replacement (SR<sup>3</sup>) projects. A total of \$2,716,000 is requested in FY 1983 for these minor remodeling projects. Still other improvements related to energy conservation are presented as part of the University's energy conservation request.

TABLE 1  
MEDICAL CENTER CAMPUS  
LIST OF FY 1983 PROJECTS BY CATEGORY

<u>Projects</u>	<u>Estimated Cost</u>
1. Buildings, Additions, and/or Structures	\$ 0
2. Land	
Easter Seal Building - Purchase	\$350,000
Subtotal	(\$350,000)
3. Equipment	0
3a. Equipment Related to Space Realignment, Renewal, and Replacement Projects	0
4. Utilities	0
5. Remodeling and Rehabilitation	
Hospital Addition Remodeling	\$2,796,000
Subtotal	(\$2,796,000)
5a. Space Realignment, Renewal, and Replacement	\$2,716,000
6. Site Improvements	0
7. Planning	
Pharmacy Building Remodeling	\$347,000
Subtotal	(\$347,000)
 TOTAL FY 1983 CAPITAL BUDGET REQUEST - MEDICAL CENTER	 \$6,209,000

LAND

Acquisition of Easter Seal Building (\$350,000)

Due to the similar duties performed by the Personnel Services Offices of the Medical Center and Chicago Circle campuses, it was determined that a single location for the offices, as well as related units, would enhance the efficiency and effectiveness of both campuses' personnel operations. Acquisition of the Easter Seal Building, located at 2023 West Ogden Avenue, will provide an excellent site for personnel services units at the Chicago campuses. Units to be assigned space in the building include the Chicago Circle Personnel Services Office, the Medical Center Personnel Services Office, and two additional units from the Medical Center campus, the Office of Organizational Development and the Office of Labor Relations.

The Easter Seal Building, which is located on the triangular site created by the interstices of Ogden Avenue, Polk Street, and Damen Avenue, contains three floors with approximately 18,000 gross square feet. The basement level will be utilized by the Office of Labor Relations and the Office of Organization Development. These offices require conference and training areas as well as standard office space. The first floor is intended for use primarily as applicant reception and processing areas and testing and conference rooms. Professional office space, clerical areas, and file and storage space will be located on the second floor.

## REMODELING AND REHABILITATION

### Hospital Addition Remodeling - (\$2,796,000)

With the occupancy of the Replacement Hospital, approximately 85,000 net assignable square feet of space has been vacated in the Hospital Addition. About 40,000 square feet of this space has been reassigned to the Hospital for such uses as clinical laboratories, medical records library, and patient accounts file storage. The remainder of the space has been assigned to the Abraham Lincoln School of Medicine for use by the clinical departments primarily as faculty offices and laboratories.

Funding requested in Fiscal Year 1983 is intended to continue the rehabilitation of this building, scheduled to begin in FY 1982, by installing the vertical distribution of utility services and installing essential building services and ventilation needs. Space remodeling is initiated in this phase with the conversion of the vacated kitchen area for clinical laboratories. Specifically this request provides for:

- Electrical Power Risers
- Emergency Electrical Risers
- Electrical Grounding Risers
- Equipment Automation Riser
- Fire Alarm Riser & System Modification
- Telephone and TV Risers
- Valving for Service Piping
- Fire Sprinkler System Riser
- Fume Hood Exhaust System
- Remodel 2nd Floor, Clinical Laboratories

The selection of work identified in this request is critical to a successful and meaningful remodeling program. Failure to provide basic building services and vertical distribution of utility services will result in costly, wasteful and hazardous interim arrangements.

## SPACE REALIGNMENT, RENEWAL AND REPLACEMENT

### Exterior Masonry and Tuckpointing, Part 1 - (\$220,000)

This project represents a phase of an ongoing campus tuckpointing program. There are four campus buildings involved in this part. Due to the deterioration of mortar joints, window caulking and rusting of steel lintels, this work is an absolute necessity to preserve the integrity of the exterior masonry and stop further deterioration of interior plaster walls.

The following is a list of the buildings involved and a brief description of the work that will be performed on each.

- College of Medicine West Tower (908 Building) - General tuckpointing-north elevation only.
- College of Medicine West Tower (909 Building) - Wolcott Street Wing-general tuckpointing, east and west elevations. Polk Street Wing-general tuckpointing from the fifth floor level down to grade, north elevation only. South elevation work was completed under another phase.
- College of Medicine East Tower - General tuckpointing-north and east walls. The south and west elevations, in the inner court, were completed under a previous phase.
- College of Pharmacy - General Tuckpointing, all elevations. In addition, the marble joints at the main entrance will be recaulked.

### Remodel Rooms 576-581, COMET, Anatomy - (\$173,000)

This project consists of remodeling approximately 2,000 NSF of space vacated by the College of Dentistry into an administrative office suite for the Department of Anatomy, School of Basic Medical Sciences. In certain cases existing interior walls will be removed and a new configuration for the space will be designed. Appropriate lighting, heating, and electrical services will be provided, a suspended ceiling installed, as well as new floor covering. The suite will be connected with the new mechanical systems now available in the mechanical tower.

Remodel Tenth Floor, COMET, Center for Educational Development - (\$354,000)

This project consists of the remodeling of approximately 2,800 net square feet of space on the tenth floor of Building #910, COMET, space vacated by the College of Dentistry, into administrative offices, a learning resources center, a conference/classroom, and secure rooms for test development for the Center for Educational Development. The area has been "demolished" as part of Project II, SUDMP Remodeling; walls and ceilings were removed, as were ducting, piping, electrical circuitry, and other mechanical and electrical systems. The space under this project will be reconfigured into a new complex of rooms with appropriate lighting, heating, and electrical services. A suspended ceiling and a new floor covering will be installed; and the suite will be served by a mechanical system comparable to the system installed on the lower floors. Mechanical equipment to serve this space will be installed in mechanical rooms on the 10th floor, and will operate in conjunction with equipment to be installed on the 15th floor.

Air Condition 1919 West Taylor Street, Part 1 - (\$578,000)

This project will purchase and install the initial set of components for a central air conditioning system for this building. These components are as follows:

- 300 ton chiller
- Cooling tower
- Condensate pumps & piping
- Chilled water pumps
- Chilled water valves (partial)
- Electrical connections (partial)
- Controls (partial)

The scope of this project will prepare the building for production of the chilled water, and will be ready to receive the piping for vertical distribution of the chilled water.

Air Condition 1919 West Taylor Street, Part 2 - (\$255,000)

This project is a continuation of the program to provide the necessary components for a central air conditioning system in the 1919 W. Taylor Street unit. This portion of the program will complete the installation of the system and will provide chilled water to floors 1, 2, 3 & 4. No

lateral distribution is provided. The components included are:

- Chilled water valves
- Electrical connections & controls
- Chilled water risers

The scope of this project will provide chilled water to the first four floors with lateral distribution to follow.

Exterior Masonry and Tuckpointing, Part 2 - (\$178,000)

This project represents a phase of an ongoing campus program. There are five campus buildings involved in this part. Due to the deterioration of mortar joints, window caulking and rusting of steel lintels, this work is necessary to preserve the integrity of the exterior masonry and stop further deterioration of interior plaster walls.

The following is a list of the buildings involved and a brief description of the work to be performed on each.

- Administrative Service Building - Baker Building wing only-general tuckpointing, all elevations.
- 1919 West Taylor Street - Recaulking of the wall coping joints and tuckpointing of the roof penthouses.
- Hospital Addition - Tower Section/3rd through 15th floors-replacement of approximately 60 steel lintels and general tuckpointing and window frame caulking, all four elevations. The low-rise portion of this building (1st and 2nd floors) was completed under a previous phase.
- Biologic Resources Laboratory - West Wing (one story portion) general tuckpointing all elevations. East wing (two story portion) - recaulking of the brick panels laid into the exposed structural steel framing.
- Medical Sciences Addition - General tuckpointing and recaulking of all window frames, all elevations.

Remodel Rooms 560-570A, COMET, Anatomy - (\$208,000)

This project consists of remodeling approximately 2,400 NASF of vacated dentistry space to provide wet laboratories and faculty offices for the Department of Anatomy of the School of Basic Medical Sciences. The work will consist of painting, refurbishing, renewal of mechanical services, purchase and installation of new laboratory benches, and connection of the rooms to mechanical systems in the new mechanical tower. New flooring, lighting, and suspended ceilings will be part of the project.



Remodel Room 200, Pharmacy - (\$408,000)

Room 200 is a large laboratory located in the north bay on the second floor of the Pharmacy Building. It consists of 6,600 NASF and a capacity for 225 students. The remodeling project would reduce the size of the laboratory and create research space for approximately ten graduate students. This remodeling will substantially reduce the present overcrowding of graduate students in the Department of Pharmacy. The scope of work requires dividing partitions; relocation of existing laboratory benches; installation of new lab benches, fume hoods, and lab furniture; and rearrangement of lighting, ventilation, electrical and laboratory services.

Remodel Second and Third Floors, Orthopedic Building, Nursing - (\$342,000)

The space on the 2nd and 3rd floors west wing of the Orthopedic Building total 7,000 NASF and previously housed Orthopedic patients. These floors were assigned to the College of Nursing upon occupancy of the Replacement Hospital. The second floor was remodeled for patient care within the past 10 years and requires modest reworking to accommodate new functions. The third floor is in very poor condition and requires total remodeling.

## PLANNING

### Remodel College of Pharmacy Building - (\$347,000)

This project involves the upgrading of the air conditioning and ventilation system by the installation of additional ventilating systems, including air handling systems, air distribution systems, chilled water piping and pumps, automatic temperature controls and related electrical services. Additional chilled water capacity to support the new ventilating system is to be obtained from a chilled water generating plant external to the College of Pharmacy Building.

The problem, inadequate ventilation and the lack of air conditioning, dates back to the original construction of the facility. The building design and appropriation request were based on the development of an enclosed "T" shaped building, with the air conditioning capacity to be located in the back of the building. However, the appropriation was sufficient only to construct the front part of the building, thus creating a building with fixed windows and no air conditioning. When the three small additions were constructed, they were air conditioned. Unfortunately, these areas encompass only a small part of the facility and include very few instructional or faculty areas. To further exacerbate the problem, the existing ventilation system is inadequate. Those two factors unite to create an unhealthy, unsafe and counterproductive environment.

The American Council on Pharmaceutical Education, in its 1974 accreditation report, cited the problem in its evaluation of the College's physical facilities. "Unfortunately, the building is inadequately ventilated and sealed without provision for air conditioning which leads to discomfort and inefficiency."

The combination of lack of air conditioning and inadequate ventilation manifests itself in several ways: extreme heat (temperatures often reach 90° and higher) in both the winter and summer; extreme fluctuation in temperature; the introduction of noxious and toxic fumes exhausted from several laboratories into other areas; and the introduction of large amounts of black soot into areas. The extreme heat and toxic fumes create hazards to both students and staff. Due to these aggregate

problems, much time, money, and patience have been exhausted in trying to correct or at least make the situation tolerable.

For FY 1983 funds are requested for planning. Construction will begin in FY 1984. Construction funds required for the project are \$3,938,000. Total project cost based on FY 1983 dollars is \$4,285,000.

## URBANA-CHAMPAIGN

The FY 1983 Capital Budget Request contains nine projects for a total cost of \$10,724,100. Renovation of the English Building is the first priority project for the campus. This third phase of a four phase project is budgeted at \$2,720,000. Renovation of the west center portion of the building into classrooms and offices better suited to programs housed in the building will be accomplished in this phase. It is estimated that the total remodeling costs for the project will be 40-50% less than the construction of a new facility.

A second focus of the FY 1983 request is the construction of two small facilities. The Pilot Training Facility is a needed replacement project for the campus. Deterioration of the existing facility due to aging and weather damage has occurred to the point where the building is unsafe, costly, and not conducive to learning. Construction of a new facility was proposed only after it was determined the existing facility could not be remodeled economically. The construction of a Chemical and Radioactive Waste Storage Facility will provide a single campus location for processing, packing, and storage of waste chemicals and radioactive waste. The lack of adequate radioactive waste dump sites and increasing regulatory control over the transportation of chemical waste have resulted in the need for a storage facility on this campus.

Two planning projects (Auditorium Remodeling and Television Building Addition) play a significant role in the FY 1983 request. Auditorium Remodeling planning funds are requested to design a new roof system and related mechanical and electrical changes made necessary by the deteriorating conditions of the metal roof dome. Planning for the Television Building Addition provides the opportunity for space consolidation and program coordination activities that will result in substantial operating economies for the Division of Broadcasting.

The FY 1983 request also includes two Space Realignment, Renewal, and Replacement groups containing twenty-one separate projects at a total cost of \$5,720,000. These projects are intended to upgrade portions of existing space and improve the utilization and condition of the facilities.

TABLE 1  
URBANA-CHAMPAIGN CAMPUS  
LIST OF FY 1983 PROJECTS BY CATEGORY

<u>Projects</u>	<u>Estimated Cost</u>
1. Buildings, Additions, and/or Structures	
Chemical Waste Storage Facility	\$ 231,200
Pilot Training Facility	1,482,900
Subtotal	(\$1,714,100)
2. Land	0
3. Equipment	0
3a. Equipment Related to Space Realignment, Renewal, and Replacement Projects	\$374,500
4. Utilities	0
5. Remodeling and Rehabilitation	
English Building Remodeling	\$2,720,000
Subtotal	(\$2,720,000)
5a. Space Realignment, Renewal, and Replacement	\$5,345,500
6. Site Improvements	0
7. Planning	
Auditorium Remodeling	\$100,000
Television Building Addition	470,000
Subtotal	(\$570,000)
TOTAL FY 1983 CAPITAL BUDGET REQUEST - URBANA-CHAMPAIGN	\$10,724,100

# BUILDINGS, ADDITIONS, AND/OR STRUCTURES

## Chemical And Radioactive Waste Storage - (\$231,200)

Estimated Total Project Cost . . . . .	\$231,200
Estimated Bond-Eligible Funds	
Required in FY 1983 . . . . .	231,200
Total Non-State Funding for Which the	
Project is Eligible . . . . .	-0-
Estimated Non-State Funding . . . . .	-0-
Gross Square Feet . . . . .	2,760
Net Assignable Square Feet . . . . .	2,300
Building Efficiency . . . . .	83%

This project will provide facilities for processing, packing and storage of waste chemicals and radioactive waste materials for periodic disposal.

Recent developments in availability of radioactive waste burial sites around the country indicate that it will be necessary for the University of Illinois to drastically cut down on the volume of radioactive waste it ships for burial. Presently only one burial site (Richland, Washington) is available to UIUC for burial of radioactive waste. All radioactive waste is generated from research and teaching in more than 380 labs at UIUC.

The radioactive waste handling facility which is presently in use at UIUC is a small room located in the basement of the Loomis Laboratory of Physics. This room houses a trash compactor, several permanently-stored radioactive sources, and can hold up to 30 barrels of radioactive waste (about two-and-a-half months' worth). The room is unventilated and so is not an optimal location for a trash compactor which is used to compact radioactive solids.

Disposal of waste chemicals generated at the UIUC campus has grown from an activity once handled by the individual laboratory (principally flushing down the sink) to a campus-wide activity coordinated by the Division of Environmental Health and Safety. Disposal procedures evolved as follows:

### A. Unknowns, explosives, and pyrophorics.

These classes of chemicals cannot be shipped or buried in landfills. The explosive materials are detonated by trained technicians; the rest are incinerated.

B. Other waste chemicals.

A campus-wide cleanup of these wastes has been organized on a semi-annual basis. Individual departments were responsible for packing and delivering barrels to a central collection point. A waste chemical disposal contractor then picked up the barrels for disposal at an approved burial site.

The above procedures worked, but were marginal. On the clean-up day, confusion reigned at the collection site as people from all over the campus dumped solvents and oils into barrels. There were mistakes made. At some times, people would either by accident, ignorance, or intent, slip explosives, unknowns or pyrophorics into the collection barrels.

During the past two years, the Illinois Environmental Protection Agency (IEPA) and the Federal Department of Transportation (DOT) have promulgated increasingly stringent and restrictive legislation as to what can be shipped, how it must be packed, and the kinds of packing materials and containers required.

The last general clean-up (April 19, 1979) emphasized the problems the University faces in chemical waste disposal: The IEPA reviewed the chemicals listed on the barrel-packing lists, line by line. Of 62 barrels to be shipped, 13 were denied permits by the IEPA for containing allegedly incompatible chemicals. It took the IEPA until mid-August to provide the permits for the 49 barrels. This posed an unexpected problem for long-term storage. The Dean of Veterinary Medicine permitted the Division of Environmental Health and Safety to clean out a field building on the Research Farm to use for storage. The building has been fenced, and explosion-proof lights and safety shower/eye wash have been installed.

The proposed new facility will allow the University to safely hold its chemical and radioactive waste materials until they can be properly disposed either by being carried away by a contracting hauler or by being burned in a proposed campus/community incinerator (which is still in the discussion stage of development).

The Chemical and Radioactive Waste Storage facility is programmed to contain the following types and amounts of space:

Room Type and USOE Code	NASF in Proposed Facility
Office (310)	150
Storage (730)	1,800
Shop/Work Area (720)	350
TOTAL	2,300

Upon completion of this project, Field Building #969 will be vacated by the Division of Environmental Health and Safety and the space will once again be used by the College of Veterinary Medicine.

	Estimated Total Project Cost	Requested for FY 1983	Requested for FY 1984 and Beyond
Basic Building Cost (Including Fixed Equipment and Professional Fees)	\$223,200	\$223,200	\$ -0-
Funds to Complete Bond- Eligible Buildings	-0-	-0-	-0-
Equipment	-0-	-0-	-0-
Utilities	8,000	8,000	-0-
Planning (Included in Basic Building Cost Above)	( 29,200 )	( 29,200 )	( -0- )
TOTAL	\$231,200	\$231,200	\$ -0-



Pilot Training Facility - (\$1,482,900)

Estimated Total Project Cost. . . . .	\$ 1,603,900
Estimated Bond-Eligible Funds	
Required in FY 1983 . . . . .	1,482,900
Total Non-State Funding for Which the	
Project is Eligible . . . . .	-0-
Estimated Non-State Funding . . . . .	-0-
Gross Square Feet . . . . .	10,200
Net Assignable Square Feet. . . . .	8,500
Building Efficiency . . . . .	83%

This project has been given a high priority by the campus administration because of the badly deteriorated condition of the present Facility. The building area now occupied by Pilot Training for its academic program in Aviation was constructed in 1945. This structure is a lean-to building attached to Hangar #1. The hangar was originally erected in Grady, Arkansas, during World War II. It was dismantled and shipped to the University of Illinois-Willard Airport and re-erected. While the building has been upgraded (on a temporary basis) and remodeled to furnish minimum facilities, it is rapidly deteriorating and requires replacement. The walls are poorly insulated, the heating is poor, the air conditioning is minimal, and, until recently when an emergency temporary coating was applied, the roof leaked.

Deterioration due to aging and weather damage had occurred to the point where current educational functions were seriously jeopardized. Instructor personnel were not being protected from leaking structures, and expensive electronic flight simulators (\$300,000) were being damaged from moisture and furnace residues. Instructors' and students' lives were endangered by the potential for severe electrical shock which could occur from the operation of electrical equipment in an area where water collects on the floor. The resurfacing of the roof has corrected the situation for now, but the leakage problems are expected to recur in two or three years from now when the protective covering deteriorates. The present space is also extremely energy wasteful and must be corrected in consideration of energy conservation.

In order to clear the site for this project, the existing Pilot Training Facility, containing 3,760 GSF, must be razed. The structure

planned to replace the current facility will be of low-cost construction (concrete block or pre-engineered metal structure with concrete foundation and concrete floor) and will provide the following types and amounts of space:

Room Type and USOE Code	NASF in Proposed Building
Instructional Lab (210, 215, 220, 230)	4,175
Office (310, 315)	4,085
Locker Rooms (690)	<u>240</u>
TOTAL	8,500

	Estimated Total Project Cost	Requested for FY 1983	Requested for FY 1984 and Beyond
Basic Building Cost (Including Fixed Equipment and Professional Fees)	\$1,482,900	\$1,482,900	\$ -0-
Funds to Complete Bond- Eligible Buildings	-0-	-0-	-0-
Equipment	121,000	-0-	121,000
Utilities	-0-	-0-	-0-
Planning (Included in Basic Building Cost Above)	<u>( 89,000)</u>	<u>( 89,000)</u>	<u>( -0- )</u>
TOTAL	\$1,603,900	\$1,482,900	\$121,000

## EQUIPMENT

### College of Commerce Remodeling - Equipment (\$30,000)

This request relates to and supports the SR<sup>3</sup> item for College of Commerce Remodeling in David Kinley Hall and Commerce West. The major portion of the equipment to be purchased will be office equipment such as desks, chairs, file cabinets and bookcases. This movable equipment will allow teaching staff members to use the remodeled space in an effective manner.

### Agricultural Engineering Research Laboratory Remodeling - Equipment (\$10,000)

This request relates to and supports the request for the Agricultural Engineering Research Laboratory Remodeling. The major portion of the equipment to be purchased involves various items of structural testing equipment, a drying kiln, a drying oven, and large shop equipment. This movable equipment will allow the Structures program in Agricultural Engineering and the Wood Science program in Forestry to use the remodeled research space in an effective manner.

### Animal Room Improvements - Equipment (\$42,500)

This request relates to and supports the SR<sup>3</sup> item for Animal Room Improvements project in Electrical Engineering Annex. The major portion of the equipment to be purchased will be stainless steel cat and rodent cages. There will be some general support equipment purchased such as a wet-dry vacuum and storage cabinets. The caging equipment in particular is needed to meet federal guidelines for the housing of laboratory animals.

### Classroom Renovation - Equipment (\$32,000)

The classroom renovation-equipment project is a companion request to the SR<sup>3</sup> project involving upgrading and modification of 16 classrooms over 50 years old. Approximately 450 new movable arm chairs will be purchased to replace old fixed chairs. The chairs would be located in Engineering Hall and Noyes Laboratory. Installation of this equipment is in keeping with Urbana-Champaign's goal of modernizing outdated facilities to better accommodate progressive instructional methods.

Visual Arts Laboratory-Equipment (\$107,000)

This request relates to and supports the SR<sup>3</sup> item for the Visual Arts Laboratory project in the Fine Arts Building. The major part of the equipment will be cinematography cameras and related equipment. The equipment used in this type of instruction is a very important part of the course since the students are evaluated on their use of the equipment.

Ceramics Building Remodeling - Equipment (\$60,000)

This request relates to and supports the Ceramics Building Remodeling project. The major portion of the equipment to be purchased involves equipment to analyze various materials. Ceramic Engineering will also purchase equipment such as electric kilns, mixers and smaller equipment items to support the newly remodeled laboratory space. This equipment request will allow the occupants of the space to use it in an effective manner.

Astronomy Building - Remodeling - Equipment (\$21,000)

This request relates to and supports the SR<sup>3</sup> item for Astronomy Building-Remodeling. The major part of the equipment will be telescopes which will be used in Astronomy's instructional program for night sky observing sessions. Office furniture and research equipment items make up the balance of the equipment needs.

Huff Gym Basement Remodeling - Equipment (\$22,000)

This request relates to and supports the SR<sup>3</sup> item for remodeling for the Department of Leisure Studies in the basement of Huff Gym. The major portion of the equipment involves purchasing office furniture and audio-visual equipment. This movable equipment allows Leisure Studies to do a certain amount of office landscaping in the department's administrative office complex.

Davenport Hall - Geography Remodeling - Equipment (\$50,000)

This request relates to and supports the Davenport Hall - Geography Remodeling project. The major portion of the equipment to be purchased involves equipment to support the two instructional laboratories and office equipment for the teaching assistants to be housed on the newly remodeled second floor. This movable equipment will allow the Department of Geography to use the remodeled space in an effective manner.

## REMODELING AND REHABILITATION

### English Building - (\$2,720,000)

This request represents the third of a multi-phased project to completely renovate the English Building. The renovation program is estimated to cost approximately \$7,900,000 and extend one more phase in addition to this phase. After the total remodeling project is completed, the English Building will be for all practical purposes new inside the exterior walls. The remodeling is estimated to cost 40-50% less than construction of a new facility of the same size. The total remodeling program involves a new heating and air conditioning system for the building, construction of a new fire rated stair, enclosing two existing stairs, installation of an elevator, additional rest rooms and new plumbing installations, new structural flooring in the west half of the building as well as the typical partitioning, lighting and ceiling improvements, thus illustrating the broad scope of the remodeling project.

The overall thrust of this project is to remodel the 61,490 NASF and 118,140 GSF English Building, located on the west side of the quadrangle, into an office/classroom building to match the facility with the program to be housed in the facility in the foreseeable future. The English Building was originally constructed as a Women's Building some 75 years ago with two subsequent additions in 1913 and 1923 to provide a facility to house the home economics and the women's physical education program. The very nature of the original programs indicated a need for large rooms which makes the current use of the building very awkward because English requires a large number of offices to house faculty and teaching assistants. The gymnasiums and locker rooms previously used by physical education are inappropriate for any other use without extensive remodeling. The proposed remodeling will give the Department of English adequate classroom and office space to conduct its program in space designed to meet current needs. The Department of English will be able to house the Business and Technical Writing Division of the Department in the English Building for the first time making those faculty members feel that they are a part of the Department of English.

The phase currently requested involves renovation of the northwest section of the building as well as the west center portion of the building on the first, second and third floors. The remodeling will involve the installation of an elevator and the construction of new structural floors in the areas to be remodeled. The scope of the remodeling in this phase will be substantial as everything will be new within the outside walls. The remodeling is justified because the English Building is a permanent building and will provide good service for years to come after remodeling. The remodeling will provide basically office space, three instructional areas and involves remodeling 22,500 net assignable square feet. There will be an equipment request in FY 1984 to support this Phase III request. Due to the period of time necessary to complete a project of this size, it is better to request equipment funds the year after the remodeling funds are approved.

SPACE REALIGNMENT, RENEWAL AND REPLACEMENT

Accessibility Improvements - (\$170,600)

This project includes the conversion of old rest room facilities in ten (10) permanent buildings and new paraplegic ramps in four buildings for accessibility by handicapped students, faculty, employees and/or guests of the University of Illinois--Urbana Campus. Work would include the widening of water closet shelters, installation of grab bars, re-swinging of doors, lowering of mirrors and towel dispensers, and in some cases the removal of urinals or other stools to provide access space required. Upon completion of the rest room portion of the project, eighteen (18) rest rooms will be converted in buildings that presently have rest rooms which are not accessible. These ten (10) buildings have 159 classrooms and 69 instructional laboratories plus offices, gymnasiums, pools, etc.

The second portion of the project involves the installation of new paraplegic ramps in the Mechanical Engineering Building, Woodshop and Foundry Laboratory, Institute of Labor and Industrial Relations Building, and the Student Services Building. The existing means of entrance/exit in all four buildings do not meet current requirements for paraplegic use. The ramps are much too steep, or in the case of the Mechanical Engineering Building, it is necessary for the individual to enter the building through a laboratory which is not a safe situation for paraplegics. These four buildings are heavily used by students, making it necessary that the entrances meet specifications of Section 504 of the Rehabilitation Act of 1973. This request is a portion of an overall accessibility improvement program at the Urbana-Champaign campus to make permanent buildings readily accessible to the handicapped. There will be similar requests in future years for this type of improvement at the Urbana-Champaign campus.



College of Commerce Remodeling - (\$199,800)

The College of Commerce and Business Administration has experienced a 9.5% annual growth rate in undergraduate majors since the fall of 1970. Similar growth has been experienced in transfer students and the graduate student population. The expansion from a 3,000 student population to more than 5,000 in less than a decade has severely impacted available office and classroom space. Additional classroom space has been allocated to the College but new office space is not available.

This request is designed to alleviate this pressing problem by expanding the number of offices within the current space available to the College. The project will expand twelve offices (3,034 NASF) in Commerce West into twenty-two offices; and convert one office (338 NASF) in David Kinley Hall into two offices and a work room. Work includes installing ten doorways from main corridors; ducting revisions and balancing of air handling systems; electrical revisions; drop ceilings; and the construction of dividing partitions. There is an equipment request associated with the project.

Agricultural Engineering Research Laboratory Remodeling - (\$414,000)

This project involves remodeling the Agricultural Engineering Research Laboratory to provide a structural testing floor for Agricultural Engineering and to house the majority of the Wood Science Program of the Department of Forestry. The remodeling is required to change the use of this building in order for it to provide the facilities needed to properly house the Department of Agricultural Engineering and Forestry. This remodeled facility will supplement the soon-to-be constructed Agricultural Engineering Sciences Building because it was determined that this building is too good to raze. It is much less expensive to remodel this space than to construct an additional 8,000 NASF in the new building. The remodeling involves developing a structural testing area for Agricultural Engineering and a wood testing area for the Forestry Department which will consist of a wood shop and four laboratories, including two temperature and humidity controlled rooms and a dry kiln. This remodeling project will provide, for the first time, the kind of facilities that are necessary for an adequate research program for the Structures program in Agricultural Engineering and for the Wood Science program in Forestry. There is an equipment request associated with the project.

Sprinkler Systems - (\$418,700)

This request involves sprinkler protection for the Natural History Building, Arcade Building and Coble Hall. The Natural History Building contains many of the instructional laboratories for the School of Life Sciences and houses the Department of Geology. This building is located on the Quadrangle and fits into the Urbana-Champaign campus long range safety plan to eliminate the safety deficiencies of our permanent buildings.

The Natural History Building portion of the project consists of planning and installing an overhead sprinkler system for the south portion (55,000 NASF) of the building. The system is necessary to comply with the Chicago Building Code for multi-story buildings and to provide consistent, high quality fire protection for both the building and the lives of its occupants. The north portion (36,000 NASF) of the Natural History Building is already supplied with sprinkler equipment. Therefore, this project will be an extension of the existing north section. The installation will involve plumbing work and minor construction and repair work to run the required piping into each room.

The Arcade Building has the same type of construction as the Natural History Building and does not meet current codes. This request involves extending the sprinkler system to protect the 7,500 NASF on the second floor (Mathematics Department) and the storage area on the third floor. The Arcade Building is located on Wright Street near Green Street and is considered a permanent campus building.

Coble Hall is located across the street from the Administration Building and provides office space for the Chancellor, Vice Chancellors, Business Affairs, Payroll Division and faculty of the Department of Mathematics. This portion of the project includes the planning and installation of an overhead sprinkler system for the second and third floor (7,800 NASF). The system is necessary to comply with the Chicago Building Code for multi-story buildings and to provide consistent, high quality fire protection for both the building and the lives of its occupants. The basement and first floor (8,954 NASF) of Coble Hall had a sprinkler system installed when major remodeling was completed in the late 60's.

Animal Room Improvements - (\$127,000)

This project involves upgrading the existing animal holding facilities in the Electrical Engineering Annex to a level required by Federal Regulations. Federal grant agencies have threatened to withhold research funds unless our facilities are improved. This is the third of a five-phased program to bring our existing facilities into compliance with the U.S. Department of Health and Human Services standards and regulations governing the humane handling, care and treatment of laboratory animals.

The work to be done in the Electrical Engineering Annex involves remodeling 853 NASF on the first floor. The project includes modification of the ventilation system, dropping ceilings, installing sinks, partition changes, and installing a cage washer and a bottle filler. These improvements will allow the Department of Electrical Engineering to do a better job of caring for the animals, while the cage washer and bottle filler will save animal caretaker time. The Urbana campus anticipates that after project completion, the facility will serve the animal holding needs for the Department of Electrical Engineering for a number of years. There is an equipment request associated with this project.

Roger Adams Laboratory Remodeling - (\$191,700)

This request involves remodeling 1,200 NASF on the Mezzanine "C" level of Roger Adams Laboratory to develop an office area for Chemical Engineering staff and graduate students. Chemical Engineering has experienced a significant growth in enrollment since 1971, primarily due to demand generated by energy/pollution problems faced by industry. Unfortunately, space allocated to the Department has not kept pace with its expansion. This project serves the dual purpose of providing additional space for Chemical Engineering, and completing a portion of a multiphased program designed to upgrade space in Roger Adams Laboratory.

The area on Mezzanine "C" projected for remodeling is presently "open" with no permanent walls. This request involves constructing two concrete block walls; installing new lighting; painting the rooms; and adding central air conditioning.

Stair Enclosures - (\$442,600)

Gregory Hall, a 65,952 NASF and 109,393 GSF building, presently has two dead end corridors with no fire-rated exits. With 33 classrooms, plus heavily used instructional laboratories and offices, this building is one of the most heavily utilized facilities on the campus. As a result, safe exits in the event of a fire are desperately needed.

The project includes the construction of hollow steel and wired glass stair enclosures with magnetic door holders and smoke detectors on each floor. Also included is the installation of illuminated exit signs, panic hardware on exterior doors and the replacement of existing windows in the stairwells with metal and wireglass. A new ground level exit will be constructed for the west stairwell so occupants have immediate access to the outside of the building. This request is part of an overall safety related program to provide adequate means of egress in permanent buildings that do not have enclosed stairways on the Urbana campus.

Classroom Renovation - (\$175,000)

This project is the first year of a multiphased program to upgrade and modernize a number of the older classrooms on campus. Forty-five percent of the classrooms are over 50 years old and several have not been substantially altered in many years. This phase will remodel approximately eleven rooms in Engineering Hall and the Architecture Building which are centrally located and heavily used. Nine of the rooms in Engineering Hall are over eighty years old and the two rooms in the Architecture Building were constructed in 1927. The goal of this project is to modernize the classroom space to support current methods of instruction. Improving audio-visual capability and installing auditorium or movable seating, new high quality chalkboards, and variable lighting controls typify the work planned. Also, the general design and appearance of many of these rooms will be updated. To properly equip the rooms, a separate equipment request in the amount of \$29,000 is included in this budget.

Visual Arts Laboratory - (\$300,500)

This project will complete Phase II of the remodeling for the Visual Arts Laboratory. It will provide cinematography facilities, a studio for photography/cinematography, and facilities to introduce photography to freshman art students. Currently, it is impossible to meet the student demand for the courses in this area of study, and the facilities are taxed to the limit by students enrolled in the courses.

Included in the project are construction of new walls, installation of additional power requirements, additional shelving, and revisions to heating and air conditioning. The first phase of this program involving a cost of \$162,200 was funded as a part of the FY 1976 Capital Budget and included needed expansion for photographic laboratories. This second phase (6,117 NASF) is to fund the required remodeling for a Cinematography Shooting Studio and several small dark rooms for freshmen and faculty in the Fine Arts Building. Major heating and ventilation changes need to be completed for optimal use of space created by remodeling Phase I and II. A separate equipment request in the amount of \$107,100 is also included in this budget request for equipping the Cinematography Studios and dark rooms.

Loomis Laboratory Remodeling - (\$93,100)

This request involves the installation of an emergency power source to operate a limited number of pieces of research apparatus, operate building sump pumps, and to provide lighting for stairways and interior hallways of Loomis Laboratory of Physics Building.

The hazards and expenses related to the lack of an emergency power source could be minimized by an emergency generator set. As currently planned this set could be operated by an engine fueled by either city gas or by propane gas stored on site and equipped with automatic cut over devices to start the engine and supply power. The new system would provide backup power to: 1) selected research apparatus, especially vacuum pumps, on a limited emergency basis in order to keep from losing an experiment that has been underway for a substantial period of time, 2) sump pumps in the basement as a protection against the flooding of mechanical equipment and instructional aids, 3) fume hoods designed for the emission of toxic materials from the Laboratory, and 4) lights placed in strategic positions in the building to aid in emergency exits.

Boneyard Overflow Protection - (\$48,200)

This project consists of completing several preventive measures to reduce the risk of loss in the eventuality of another flood of the Boneyard. On July 30, 1979 the flooding of the Boneyard Creek caused in excess of \$400,000 damage to various areas assigned to the College of Engineering.

Improvements to be made at this time include increasing the elevation of the service drive to the south door of Talbot Laboratory approximately one foot. This will decrease the probability of flooding the basement area which includes a small shop with a milling machine, a crane bay, the Laser Laboratory and the Materials Engineering Research Laboratory with its various contiguous areas. The installation of coffer dams around the lower windows of Electrical Engineering Research Laboratory Building will diminish the risk of damages to that basement area. Nine windows and a door at that location will be improved as a part of this project.

Elevator Installations - (\$193,500)

This request is a part of an overall program to meet Federal and State laws requiring that all programs be accessible to paraplegic and other handicapped persons. University High School has four floors containing 26,129 NASF and 41,730 GSF and houses the laboratory school for the College of Education. It is a permanent, University of Illinois building, which must conform with standards set by Section 504 of the Rehabilitation Act of 1973.

This project involves the installation of an elevator in University High School, modification of a rest room for men and women, as well as the construction of a ramp at the south entrance to the building.

Noyes Laboratory Fume Hood Improvements - (\$251,500)

This project involves the renovation of fume hoods in Noyes Laboratory as part of an overall program to improve fume hoods throughout the campus. Improvements would be made to 35 fume hoods located in Rooms 157, 260, 350A, 350B, 355, 357, 450 and 450A Noyes Laboratory. Duct

work must be replaced or repaired and the hoods and fan housings must be made leak proof. Existing leaks in the hoods and ducts allow toxic materials to escape and enter into offices and laboratories located on floors above these rooms. In addition, fans on most of the hoods must be relocated above the roof to meet current code requirements.

Library Stacks Smoke Detection - (\$312,800)

This project includes the installation of a smoke detection system in the bookstack area of the Main Library. The bookstacks comprise some five acres of floor space distributed over ten levels. The value of the over 8.5 million catalogued and uncatalogued items housed in the stacks, their vulnerability to the hazards of fire, and the tragic academic consequences to the University which would result from the loss of any significant portion of the books is reason enough for requesting this project. However, the added factor of potential loss of life from smoke or fire in the bookstack area is just as significant a reason for undertaking the improvement and should not be disregarded. The work would include the installation of smoke detectors, necessary wiring and control panels.

An additional safety problem exists in the basement of the Main Library which should be corrected when the smoke detection system is installed in the stacks. A corridor should be constructed to connect the northwest section of the Main Library to the tunnel entering the Undergraduate Library which is located east of the Main Library. A single elevator and stairway in the northwest section of the basement impedes traffic flow. Room 66, a large lecture room, and a photo lab lack convenient access because of congestion in the area. Because the basement area is adjacent to the bookstacks, the cost of constructing the corridor includes the installation of a sprinkler system in the area. The absence of a usable basement corridor connection has safety implications, since egress is limited especially in the case of an emergency.

Ceramics Building Remodeling - (\$374,800)

This project involves a number of changes throughout the Ceramics Building (built in 1915) and minor alterations in the attached Kiln House. These changes are intended to provide facilities necessary for current and projected needs of the Ceramic Engineering instructional and research programs.

Within the past five years the Ceramic Engineering undergraduate enrollment has increased over fifty per cent and research funding, much of which is energy related, has more than doubled. The laboratory facilities for undergraduate teaching and for graduate student and faculty research now are inadequate in terms of both quality and quantity. As a result, there are increasing problems in retaining existing faculty and in attracting new graduate students and faculty, particularly those with research projects and funding.

Most of the proposed remodeling will occur in the basement area. At present the basement contains storage areas, shops, three research laboratories, and mechanical equipment. The area is poorly ventilated, damp, and hot because of inadequately insulated steam lines. The proposed remodeling would enclose the steam lines, relocate and reduce storage space, improve ventilation, revise the floor plan, and relocate and improve utilities services. The results would be an increase in the amount and quality of research space and a vastly improved and efficient environment.

Currently there are two fume hoods in the building; one is unsafe because of corroded ductwork, the other is marginally effective. Many of the materials used in Ceramics programs are toxic if ingested or inhaled so proper venting is necessary to remove dust when mixing these materials and to remove vapors when the materials are fired. This project would replace one existing fume hood and appurtenances and provide for the installation of five others.

At present there is one small women's rest room on the third floor. The increasing numbers of females in Ceramics Engineering require additional and more convenient facilities so a portion of this request would provide a women's rest room on the first floor.



Renovation of the coal bins and storage areas in the Kiln House would provide storage of many of the raw materials now located in the basement of the Ceramics Building.

Astronomy Building--Remodeling - (\$278,600)

This project involves the conversion of a large 3,291 NASF open area on the second floor of the Astronomy Building into private offices for the Office for Computer Services, and laboratories for Astronautical research (dark room, library and star chart room, microphotometer room, etc.) for the Department of Astronomy. The Center for Advanced Computation, for which the building was originally built with Federal funds in 1971, suffered a severe cutback in its Federal funding in 1978. In order to provide better utilization of the space in that building and to fulfill a long-recognized need, the Urbana campus moved the Astronomy Department to the Advanced Computation Building and moved the remaining units of the old Center for Advanced Computation to the Observatory space which was vacated by Astronomy.

Although the total available space in the Astronomy Building is adequate for Astronomy's needs, several portions of this space (the second floor and the roof) are not currently in usable form. This means that, until the proposed remodeling is accomplished, both the research and teaching efforts of the Department cannot be optimally carried out. For example, those observers who require darkroom facilities and instructors who conduct night sky observing sessions will have to shuttle back and forth between the old Observatory Building and the Astronomy Building. Also, a teaching lab in Noyes Lab and offices in an old house at 1204 W. Oregon, Urbana will have to be retained until adequate replacement facilities can be provided through this project.

The work to be done involves replacing the existing elevated floor (steel panels supported by jacks) with a permanent floor, constructing partitions with doors, installing three windows in the exterior wall, relocating darkroom equipment from the Observatory to the new rooms in this project, and constructing a platform on the roof for a telescope viewing laboratory.

Roof Replacements - (\$481,400)

This project will provide for the replacement of all or a part of the roofs on the following three buildings:

Kenney Gym was constructed in 1903. The existing cement asbestos shingles are brittle and deteriorating. The asbestos shingles will be replaced with asphalt shingles. The metal valleys, gables, gutters and apron will also be replaced.

Law Building was constructed in 1954. Certain areas of this roof (approximately 125 squares) have exposed felt, blisters and splits with resulting saturated insulation and numerous leaks. These areas require complete tear-off and replacement. The remaining areas (approximately 340 squares) can be repaired by venting the wet areas, repairing blisters and desaturating. Unless this work is accomplished promptly, the roof will continue to deteriorate and require complete replacement.

Civil Engineering Building, Phase I was constructed in 1965. The roofing has deteriorated prematurely, with insulation being saturated in areas which will require complete replacement. This project will replace approximately 152 squares of 1 1/2 inch fiberglass insulation base and 3-15 pound pitch felts with 2-6 inch tapered insulation. A new vapor barrier and five-ply built-up roofing will also be installed. Also new curb flashings and new leads at drains will be included.

This request is part of an overall program developed to reroof many of the Urbana campus buildings requiring new roofs. There will be similar requests in future years to reroof major buildings.

Huff Gym Basement Remodeling - (\$298,900)

This project involves remodeling 7,700 NASF on the west side of the Huff Gym Basement to accommodate new offices for the Department of Leisure Studies and new locker room space for women. This remodeling will make all the activity areas available to women, increase the women's locker room space, and provide office space for the Department of Leisure Studies without imposing a burden on the men's locker facilities.

The construction of the office space will permit the Department to be centrally located and to vacate space in the Armory and the Children's Research Center thus permitting reassignment to other needy departments. The remodeling will involve new partitioning, heating-ventilation, electrical, flooring and ceiling changes and improvements. Included in this project is a new towel distribution room, a conversion for a women's rest room, and a coed corridor connecting all the activity areas.

Elevator Replacement - (\$152,200)

The Architecture Building elevator was originally installed in 1927, and is of the single automatic type control with manual controls on the door. The elevator has no automatic leveling devices. The current elevator is most difficult for paraplegics to use. A modern elevator car will be installed with selective-collective controls, automatic leveling system and power door controls for ease of operation by paraplegics. This improvement will allow handicapped individuals easy access to all five floors of the building instead of just the basement floor. This request is part of an overall program to replace obsolete elevators which are inadequate and difficult to maintain.

Davenport Hall - Geography Remodeling - (\$305,400)

This project will provide two modern 30-station instructional laboratories, one wet and one dry; a preparation area; storage space; and a seminar room in the Room 137 complex. The displaced office space will be relocated in the Room 237 complex which is an old laboratory used by Agronomy. This switch in space is necessary to assure that these rooms are accessible for the handicapped because the rooms are typically used 30 hours per week for undergraduate instruction. This portion of Davenport Hall has seen very little remodeling since it was constructed in 1900. This project includes removal of walls and old laboratory benches. The improvements

include a new heating system, air conditioning, new sinks, new flooring, acoustical ceiling tile, lighting and painting. The above improvements will provide the means to do more and better laboratory demonstrations, thus allowing the instructors to do a better job of teaching.

Natural History Building--Remodeling - (\$115,200)

The existing air conditioning systems that cool four different areas in the north half of the basement of the Natural History Building are approximately 16 years old, and the units do not cool the areas adequately or operate efficiently. Even though steam lines running through this section of the building have been insulated, the basement still becomes almost unbearable in the spring and fall. Matters are made worse by the fact that many rooms have no windows and thus no source of outside air. Plans have been completed to install a chiller and remote condenser and cooler to handle the cooling of the Room 103 complex, Room 104 complex, Room 111 complex and Room 118 complex (approximately 3,365 NASF). This type of air conditioning system will reduce energy use and provide a reliable system for cooling laboratories and offices assigned to Geology.

PLANNING

Auditorium (Remodeling) - (\$100,000)

This project involves the complete replacement of the domed roof of the Auditorium. The building was originally constructed in 1908, prior to the existence of comprehensive building codes. As a result, the facility is in substantial violation of current codes, and flammable materials are common in the structure. In addition, the metal roof dome has deteriorated to the extent that further repairs cannot be made. The gutter sections of this building have also deteriorated to the point that further soldering of joints is useless and only temporary repairs can be made.

As a result of these problems, water is leaking into the building, causing interior damage to the plastered ceiling and walls. Because of fear that the ceiling might collapse, the O & M Division has begun a practice of making monthly inspections of the structural members so that, if necessary, the building could be closed on short notice.

The proposed remodeling of this facility will include the complete replacement of all wooden structural members with fireproofed metal framing and non-combustible roof and ceiling material, necessary mechanical and electrical changes, and major renovation of the building, including new seating, to make the space more usable.

The Auditorium has long been a campus landmark and it continues to serve as a site for many campus functions--lectures, student and faculty meetings, musical events, movies, examinations, etc. Except for the roof deficiencies, this historically significant building is basically of sound construction and its value is sufficiently high that razing the structure is not warranted. Also, renovation of the building is considered to be considerably less expensive than constructing equivalent new space.

Planning funds (\$100,000) are requested in FY 1983 to design the new roof system and related mechanical and electrical changes. The roof replacement and related work is programmed to be requested in FY 1984 and is estimated to cost \$1,012,000.

Television Building Addition - (\$470,000)

This project will provide replacement space for essentially all units of the Division of Broadcasting at the site of the present Television Building at the corner of Goodwin and Main Streets in Urbana. Completion of this project will allow the razing of four high maintenance buildings and will provide the opportunity for space consolidation and program coordination.

The television and radio stations provide valuable public service to the people of the State of Illinois, reaching more people each week than all of the rest of the University's units combined, at a cost of less than a half-cent per listener-hour. This is the only connection to their state university for many people in Illinois.

Despite the value of these services, the Division of Broadcasting occupies many buildings on campus which were not designed for use as broadcasting facilities (aside from the New Studio Addition built in 1970). Thus, this project addresses two critical needs: 1) providing space of adequate quality and quantity, and 2) centralizing the operations of the Division of Broadcasting for more efficient administration and more economical operation. Additionally, because the Division would be vacating a wing of Gregory Hall on the central campus, there would be a substantial gain of prime space which could be economically reconverted to classrooms and offices.

The existing space occupied by the television station, a former bakery and a former rooming house, are badly deteriorated and require continuing maintenance. One exterior wall of the bakery building was recently rebuilt to prevent water leakage on expensive equipment. The roof is under constant repair but has deteriorated to the point that the repairs will last only temporarily. The dust level in the bakery building is unacceptably high but cannot be reduced because the dust consists of crumbling plaster, paint dust, and insulation fibers. This dust penetrates expensive videotape machines and causes enormous damage and expense on a continuing basis: videotape operation costs are approximately five times the industry average despite extensive air filtration and dust containment measures undertaken by the division. Even existing office space at the Television Building is inadequate.

This project is programmed to contain the following types and amounts of space:

<u>Room Type and USOE Code</u>	<u>NASF in Proposed Building</u>
Instructional Lab (210,215)	600
Office (310,315,350)	10,000
Audiovisual, Radio TV (530,535)	10,000
Storage (730)	<u>400</u>
TOTAL	21,000

Upon completion of this project, 10,486 NASF of space will be razed. The buildings to be razed are as follows: Television Building, excluding "New Studio Addition" constructed in 1970 (7,688 NASF), 1110 West Main, Urbana (1,974 NASF), and the TV Annex (former portable classroom, 824 NASF). Additionally, upon the project's completion, 5,803 NASF in the following buildings will be vacated for reassignment to other units: 501 South Wright, Champaign (150 NASF), Gregory Hall (4,757 NASF) and 59 East Armory, Champaign (896 NASF).

The total planning cost of the proposed building, including the initial efforts in construction document development, is estimated to be \$470,000. It is anticipated that funds for constructing this project will be included in the FY 1984 Capital Budget Request.

## GENERAL UNIVERSITY

For FY 1983 the University is requesting remodeling funds to complete important electrical upgrading work in the Roosevelt Road Building. This request is submitted as a General University project since its impact will benefit all three campuses.

### Minor Repair and Remodeling - General University

#### Upgrade Electrical Service Roosevelt Road Building - (\$533,100)

The University of Illinois computer system is centralized in the Roosevelt Road Building. This computer system provides the administrative computer capability for all three campuses of the University of Illinois and any power failure for an extended period would seriously disable the University operations. While a standby power system would be the ultimate answer, it is believed that a double source of electrical power supply will be sufficient to ensure suitable continuity of electrical service. At the present time there are two 12,000 volt power distribution lines from two separate high voltage cables coming to the Roosevelt Road Building; however, a bottle neck exists, since there is only one transformer to reduce the voltage to 480 volts. This project will provide a second transformer and complete switch gear that will allow switching from the high voltage cables to the second transformer in the event that the existing transformer fails.



PART IV

FISCAL YEAR 1983 ENERGY CONSERVATION/FUEL CONVERSION REQUEST

ENERGY CONSERVATION/FUEL CONVERSION REQUEST  
FY 1983

Funding for the University's Energy Conservation/Fuel Conversion Program was first requested in FY 1981 to respond to the then precipitous increase in energy costs. The program received enthusiastic support from the Illinois Board of Higher Education, Bureau of the Budget, Legislature and the Governor in FY 1981 and again in FY 1982. Table 1 lists the energy conservation projects for FY 1982 pending the Governor's approval.

Despite the funding received by the University for the past two years, the need for the energy conservation/fuel conversion remains critical. Energy costs are projected to increase 15-20% during FY 1982 and another 15-20% increase during FY 1983. Utilities price increases of this magnitude can only be controlled if adequate funding is provided for energy conservation.

To continue implementation of the Energy Conservation/Fuel Conversion Program, the University is requesting \$9,148,500 in energy conservation capital improvements for FY 1983. The request consists of thirty projects. Table 2 displays these projects in priority order based on the potential payback (calculated according to IBHE/CDB instructions).

Two fuel conversion projects are included in the program for FY 1983. The project at the Medical Center will convert two boilers to coal burning providing the campus with the option to use a less expensive fuel. Also, a project to connect the Chicago Circle campus to the Medical Center's power plant is requested. Conversion of two boilers at the Medical Center campus is estimated to cost \$9,643,200, while connection of the Chicago Circle campus to the Medical Center power plant is expected to cost \$5,032,800.

Table 1  
FY 1982 Energy Programs Projects As Sent to the Governor  
(Senate Bill 345)

<u>Campus</u>	<u>Project</u>	<u>Budget Category</u>	<u>Amount</u>
Chicago Circle	Modify Control Systems-Six Buildings	REMD	\$ 70,700
Chicago Circle	Zone Radiation-Three Buildings	REMD	61,900
Chicago Circle	Heat Reclaim-Five Buildings	REMD	822,500
Chicago Circle	Modify Domestic Hot Water System	REMD	38,100
Medical Center	Upgrade Heating Controls-Three Buildings	REMD	81,000
Medical Center	Upgrade Fan System-Medical Science Addition	REMD	234,000
Medical Center	Upgrade Fan System-Library	REMD	99,000
Medical Center	Building Equipment Automation-Peoria School of Medicine	REMD	108,000
Urbana-Champaign	Animal Room Improvements-Large Animal Clinic	REMD	291,000
Urbana-Champaign	Ventilation Turndown-Gregory Hall	REMD	13,500
Urbana-Champaign	Conversion from Oil to Gas-Willard Airport	REMD	266,000
Total			\$ 2,085,700

TABLE 2  
FY1983 ENERGY CONSERVATION  
PROJECT PRIORITY LIST

Priority	Campus	Project	Payback* (Years)	Project Cost	Cumulative Total	BTU's Saved/Yr (in millions)
1	MC	Modify Fan System - Dentistry Building	2.47	187,900	187,900	6,800.0
2	MC	Upgrade Fan System - Library	2.54	173,000	360,900	7,800.0
3	MC	Install Heat Recovery System - Biological Resources Lab	2.83	169,500	530,400	8,400.0
4	UC	Air Conditioning System Review	3.88	257,200	787,600	6,660.0
5	MC	Modify Fume Hood Exhaust System - Pharmacy Building	4.01	391,600	1,179,200	12,310.0
6	MC	Install Heat Recovery System - Ear & Eye Infirmary	4.22	306,700	1,485,900	10,200.0
7	UC	Domestic Hot Water Control - Two Buildings	4.23	14,800	1,500,700	752.8
8	CC	Install Air Volume System - Two Buildings	4.27	645,200	2,145,900	13,280.0
9	UC	Temperature Control Remodeling & Replacement - 12 Buildings	4.57	1,140,500	3,286,400	54,200.0
10	UC	Conversion to Central Fan System - Armory	4.85	81,400	3,367,800	3,652.0
11	UC	Reheat Systems Zone Control - 14 Buildings	5.01	414,200	3,782,000	17,949.4
12	UC	Install Air Curtains Above Entryways - Three Buildings	5.35	46,000	3,828,000	1,866.0
13	UC	Summer-Winter Ventilation Rate - Three Buildings	5.50	40,700	3,868,700	1,600.0
14	MC	Install Heat Recovery System - Dentistry Building	5.71	81,400	3,950,100	2,000.0
15	UC	Conversion to Zoned Ventilation - Arts/Design Building	6.07	194,700	4,144,800	6,986.0
16	UC	Radiation Zone Control - Seven Buildings	6.48	104,400	4,249,200	3,510.6
17	UC	Pipe Insulation - Electrical Engineering Building	6.59	33,600	4,282,800	1,111.0
18	UC	Reheat System Zone Control - 11 Buildings	6.66	282,000	4,564,800	9,206.0
19	UC	HVAC Retrofit - Two Buildings	6.67	453,100	5,017,900	14,770.0
20	MC	Modify Fan System - Nursing Building	6.74	374,400	5,392,300	7,500.0
21	UC	Domestic Hot Water Control - Four Buildings	7.12	24,200	5,416,500	740.2
22	UC	Steam Absorption Machine Control - Four Buildings	7.20	153,400	5,569,900	4,624.0
23	UC	Domestic Hot Water Control - Seven Buildings	7.35	62,500	5,632,400	1,857.9
24	UC	Radiation Zone Control - 28 Buildings	7.40	524,500	6,156,900	15,405.8
25	UC	Reheat Systems Zone Control - Four Buildings	8.59	145,100	6,302,000	3,672.9
26	UC	Animal Room Ventilation - Three Buildings	8.90	379,400	6,681,400	9,290.0
27	UC	Animal Room Ventilation Improvements - Three Buildings	9.19	890,500	7,571,900	21,066.7
28	UC	Radiation Zone Control - 28 Buildings	9.55	589,400	8,161,300	13,403.0
29	MC	Convert to Hot Water - Pharmacy Building	9.73	603,400	8,764,700	8,700.0
30	MC	Rehabilitate Radiator System - 1919 West Taylor Street	9.97	383,800	9,148,500	5,400.0

\*Payback calculated per IBHE Instructions.

TABLE 3  
FY 1983 FUEL CONVERSION PROJECTS  
PRIORITY LIST

<u>Priority</u>	<u>Campus</u>	<u>Project</u>	<u>Project Cost</u>
1	MC	Convert Boilers to Coal Burning	\$9,643,200
2	CC	Interconnect Two Chicago Power Plants	\$5,032,800

## FUEL CONVERSION

### Convert Boilers to Burn Coal - Medical Center Steam Plant - (\$9,643,200)

Boiler Numbers 1 through 5 are capable of being reconverted to coal firing. Of these, Boiler No. 1 has the least potential for reconversion since the coal dump scale and distribution chute, as well as the bottom ash hopper have been removed. Reconversion requires installation of a new bottom ash hopper and removal and reinstallation of equipment now installed in the location of Boiler No. 1 bottom ash hopper.

The most desirable candidates for reconversion are Boiler Numbers 4 and 5. These boilers are newer and have a slightly modified design. Also, their location at the end of the coal handling system is the most suitable from the standpoint of allowing reuse of space bunker capacity for live storage. Their age in conjunction with their more desirable physical location makes them the most likely targets for modification to coal burning.

There are two basic criteria for determining the number of boilers to be reconverted to coal firing:

1. Provision for a fallback fuel source which will cover total system requirements in the event of shortages of natural gas or fuel oil.
2. Provision of an alternate source of fuel with lower purchase cost to offset use of higher cost fuels.

The first criterion requires reconversion of one or more boilers sufficient to maximize annual coal usage to offset higher cost natural gas and fuel oil, but does not attempt to cover peak demands with coal firing capability.

The second criterion has been assumed for the basis of this request. The economic evaluation plans for the reconversion of two of the five boilers (Boiler Numbers 4 and 5). Boiler Numbers 4 and 5, at an average continuous capacity of 75,000 lbs. steam per hour, are capable of generating approximately eighty percent of the annual steam requirements. This estimate includes the assumption that each of the boilers will go through an annual maintenance shutdown during the summer for one month each.

Reconversion of two boilers is optimum since it allows a high usage of coal for steam generation purposes at minimum capital investment for reconversion equipment. Each additional boiler conversion will add smaller incremental amounts of coal-fired steam generation on an annual

basis. A third boiler conversion would provide only an additional ten percent coal use to the total annual energy requirements. Also the third boiler would be used for "peaking."

Base loading coal-fired units and peaking with the natural gas or fuel oil-fired units presents minimum operation difficulties. Constant or base loading coal-fired units would provide the best service since fluctuating loads and start up and shutdown periods are difficult as compared to natural gas or fuel oil load fluctuations, start ups and shutdowns.

Interconnect Two Chicago Power Plants - (\$5,032,800)

This project is to provide for a physical interconnection between the power plants of the Medical Center and Chicago Circle. The distance between the plants is approximately eight city blocks in a straight line due east from the Medical Center.

The installation, in direct buried conduit, is to pass through Urban Renewal property now vacant and under city streets.

The Medical Center Steam Plant would supply energy to the Chicago Circle High Temperature Water (HTW) system during most of the year if an additional boiler at the Medical Center Steam Plant is converted or the planned refuse fueled steam plant comes on line. The potential benefits include:

1. Operator labor savings at the Chicago Circle HTW Plant.
2. Lower fuel costs through the use of coal should the reconversion project be completed.

TABLE 4  
FY1983 ENERGY CONSERVATION  
PROJECT PRIORITY LIST - CHICAGO CIRCLE

Campus Priority	Project	Payback* (Years)	Project Cost	Cumulative Total	BTU's Saved/Yr (in millions)
1	Install Air Volume System - Two Buildings	4.27	645,200	645,200	13,280.0

\*Payback calculated per IBHE Instructions.



## ENERGY CONSERVATION - CHICAGO CIRCLE

### Install Variable Air Volume Systems - 2 Buildings - (\$645,200)

This project consists of modifying the existing air distribution system equipment in the Science and Engineering Laboratories and the Architecture and Art Building.

The existing primary air distribution systems located in the two buildings are called "dual duct," meaning the system provides a hot and cold air duct to each room (or zone) of the building.

The modification consists of the changeout of the terminal devices or "mixing boxes," where hot and cold air is presently blended, to units which instead use only the cold air. Thus the "blending" of room air to temper the final temperature of air entering each room (or zone) could be achieved. This project would eliminate the need for hot air and the energy presently used to heat it.

TABLE 5  
FY1983 ENERGY CONSERVATION  
PROJECT PRIORITY LIST - MEDICAL CENTER

Campus Priority	Project	Payback* (Years)	Project Cost	Cumulative Total	BTU's Saved/Yr (In millions)
1	Modify Fan System - Dentistry Building	2.47	187,900	187,900	6,800.0
2	Upgrade Fan System - Library	2.54	173,000	360,900	7,800.0
3	Install Heat Recovery Systems - Biological Resources Lab	2.83	169,500	530,400	8,400.0
4	Modify Fume Hood Exhaust System - Pharmacy Building	4.01	391,600	922,000	12,310.0
5	Install Heat Recovery System - Ear & Eye Infirmary	4.22	306,700	1,228,700	10,200.0
6	Install Heat Recovery System - Dentistry Building	5.71	81,400	1,310,100	2,000.0
7	Modify Fan System - Nursing Building	6.74	374,400	1,684,500	7,500.0
8	Convert to Hot Water - Pharmacy Building	9.73	603,400	2,287,900	8,700.0
9	Rehabilitate Radiator System - 1919 West Taylor Street	9.97	383,800	2,671,700	5,400.0

\*Payback calculated per IBHE Instructions.

## ENERGY CONSERVATION - MEDICAL CENTER

### Modify Fan System - Dentistry Building - (\$187,900)

The project consists of modifications made at two (2) of the main air handling systems located in the Phase I portion of the building. Included are electronic speed controllers with automatic and manual resets to provide a varying RPM's of the fans to operate the system at a lower volume in the winter.

A second modification is the installation of control devices at the main branch ducts serving each floor of the modified units to regulate air quantities to each location.

A third modification will consist of the repair and/or replacement of damper operators and dampers to provide positive operation during periods of warm up and after extended shutdown periods.

The efficiency of the proposed modifications are expected to result in energy savings of over 6.8 billion BTU's per year, equivalent to a payback period of 2.47 years.

### Upgrade Fan System - Library - (\$173,000)

The present ventilation system consists of multizone air handlers on each floor of the Library. The ventilation rate was based on peak summer cooling needs. Following remodeling the present ventilation rate of 1.2 cubic feet of air per square foot will be decreased by 50%. This will be accomplished by utilizing two speed electric motors on both the supply and return fan drives for each floor. All four floors will be modified.

Air handler high speed will be on a time sequence of 8 hours after which automatic switching to low speed will take place. High speed will be engaged automatically by high outside air temperature.

Some additional draft problems are anticipated due to the present distribution system. Some modification will be required in areas in which draft problems will create severe discomfort.

The efficiency of the proposed modifications are expected to result in energy savings of 7.8 billion BTU's per year, equivalent to a payback period of 2.54 years.

Install Heat Recovery System - Biological Resources Laboratory - (\$169,500)

This project consists of reclaiming heat in air to be exhausted from the building by placing heat exchange coils in the air handling systems. This system is particularly energy efficient in the Biological Resources Laboratory building because the air itself cannot be recirculated. These improvements are expected to result in an estimated savings of about 8.4 billion BTU's per year which is equivalent to a payback period of 2.83 years. The remodeling consists of the installation of a supplemental heating coil in each of the exhaust discharges of the air handling systems located in the building. The supplemental coils will be interconnected to other supplemental coils located in the fresh air intake of all the supply air handling units. Through the use of such "Run-Around" heat recovery systems, heat is extracted from the exhaust air and used to preheat the fresh air entering each air unit.

Modify Fume Exhaust System - Pharmacy Building - (\$391,600)

Fume hood supply and exhaust fans serving the instructional laboratories in the Pharmacy Building run continuously. Make up air is tempered and ducted to the individual fume hoods. These hoods need not run continuously.

The proposed modification will call for demand cycling of these hoods. The hoods will then run only when classes are in session. For this 8 hour period, the high make-up rate will be tempered with heat recovered from the laboratory exhaust. The present individual exhaust systems will be modified to a central fume hood exhaust system with heat recovery. Only two hoods per floor will run continuously during non-class hours.

During off hours, the remaining 59 hoods, each exhausting 1000 cubic feet per minute, will be cycled off for a 16 hour period. Additionally, the fume hood make up air fans for these hoods will be shut down for the 16 hour period. This will require the ventilation system to supply 5,750 cfm to each of the two laboratories. The existing ventilation system will be fitted with heat recovery as will the new make up air system.

The modification will institute a time of day multi-point load management system. Each room will be fitted for an 8 hour use period of hood units. A Glycol heat recovery loop will be installed. There will be coils in the new central fume hood exhaust and in present ventilation exhaust to provide heat for all supply air systems.

The project will start with the installation of a new 38,000 cfm make up unit with heat recovery capabilities. This will temper air with heat recovered from a new 59,000 cfm exhaust system. This system will only operate 8 hours a day on class days. This will mean great savings from the present 24 hours a day operation.

These modifications are expected to result in an estimated savings of 12.3 billion BTU's per year which has an equivalent payback of approximately 4.01 years.

Install Heat Recovery System - Eye and Ear Infirmary - (\$306,700)

This project consists of reclaiming heat in air to be exhausted from the building by installing a new dual duct variable volume air handler with integral heat recovery coil, steam coil, and chilled water coils. This unit will replace two of the buildings 4 largest air handlers which do not recover waste heat. The new heat recovery coil will be fed heat from new recovery coils to be installed in the building exhaust system duct work. Through the use of such a "run around" heat recovery system, heat is extracted from the exhaust air and used to preheat the fresh air entering each air unit. These improvements are expected to result in an estimated savings of about 10.2 billion BTU's per year which is equivalent to a payback period of 4.22 years.

Install Heat Recovery System - Dentistry Building - (\$81,400)

This project provides for the installation of a supplemental air handler to serve the interior or central core areas of the building's lower floors. Utilization of this smaller unit to service the core areas will eliminate the necessity of operation of the larger building systems to serve these same areas during times when only the core areas require cooling and/or ventilation.

The primary air supply to the air handler will be interfaced to the building area exhaust systems supplemented with fresh air to achieve code and cooling requirements. The unit will be complete with all coils, zone controls, duct work, piping and electrical work.

The effect of the proposed installation is estimated to result in an energy savings of 2 billion BTU's per year which is equivalent to a payback period of 5.71 years.

Modify Fan System - Nursing Building - (\$374,400)

This project will modify fan systems which serve the first and basement floors of the College of Nursing Building. Presently these fans systems receive only outside air. These systems will be modified to recirculate air from all areas that allow recirculation under city code. The present supply duct work will be modified to variable volume including the southwest classrooms which will require new duct work. The supply fans will be provided with Ramsey adjustable electronic motor controllers to maintain supply air as regulated by duct pressure sensor.

The efficiency of the proposed modifications are expected to result in energy savings of over 7.5 billion BTU's per year, equivalent to a payback period of 6.74 years.

Convert to Hot Water - Pharmacy Building - (\$603,400)

This project consists of the conversion of the existing steam heating distribution systems located in the Pharmacy building to systems of hot water distribution. The system conversion complements the proposed variable air volume system installations in the same buildings, making the total systems the most efficient to be designed.

The installation will consist of the necessary convertors, piping, pumps, controls and insulation to make complete primary distribution systems. An isolated water makeup and nitrate treatment system will be used in this water system.

This project is only to be done in Phase I of the building on the perimeter induction units reheat system. Each of 295 induction units will then be under a hot water system whose supply temperature will be reset on demand by the outside air temperature. 160 of these units are located within offices and small laboratories. Each unit will be modified for control by a new thermostat and new reheat terminal valve. Dual band thermostats must be installed to allow for future cooling ability at these coils.

Energy for this system will be scavenged from the waste of the existing condensate return system by circulating it thru a flat plate heat exchanger. A new domestic flash hot water heater will also be installed in conjunction with this project.

This modification is expected to result in an estimated savings of 8.7 billion BTU's per year which has an equivalent payback period of approximately 9.73 years.

Rehabilitate Radiator System - 1919 West Taylor Street - (\$383,800)

The project consists of the rehabilitation of the convective heating system located on the six (6) upper floors of the building. The existing convectors presently have manual valves, which over the years have become frozen, handles broken off, or have disappeared. At present, the means of temperature control in these rooms is by opening the windows.

This project will provide automatic control valves for all of the convectors located on the upper six (6) floors. In addition, a new steam convertor with outdoor control, is to be installed for modulation of the discharge water temperature based on outdoor air temperature.

These modifications are expected to result in an estimated savings of 5.4 billion BTU's per year which has an equivalent payback period of approximately 9.97 years.

TABLE 6  
FY1983 ENERGY CONSERVATION  
PROJECT PRIORITY LIST - URBANA-CHAMPAIGN

Campus Priority	Project	Payback* (Years)	Project Cost	Cumulative Total	BTU's Saved/Yr (in millions)
1	Air Conditioning System Revision	3.88	257,200	257,200	6,660.0
2	Domestic Hot Water Control - Two Buildings	4.23	14,800	272,000	752.8
3	Temperature Control Remodeling & Replacement - 12 Bldgs.	4.57	1,140,500	1,412,500	54,200.0
4	Conversion to Central Fan System - Armory	4.85	81,400	1,493,900	3,652.0
5	Reheat Systems Zone Control - 14 Buildings	5.01	414,200	1,908,100	17,949.4
6	Install Air Curtains Above Entryway - Three Bldgs.	5.35	46,000	1,954,100	1,866.0
7	Summer-Winter Ventilation Rate - Three Bldgs.	5.50	40,700	1,994,800	1,600.0
8	Conversion to Zoned Ventilation - Arts/Design Building	6.07	194,700	2,189,500	6,986.0
9	Radiation Zone Control - Seven Buildings	6.48	104,400	2,293,900	3,510.6
10	Pipe Insulation - Electrical Engineering Building	6.59	33,600	2,327,500	1,111.1
11	Reheat Systems Zone Control - 11 Buildings	6.66	282,000	2,609,500	9,206.0
12	HVAC Retrofit - Two Buildings	6.67	453,100	3,062,600	14,770.0
13	Domestic Hot Water Control - Four Buildings	7.12	24,200	3,086,800	740.2
14	Steam Absorption Machine Control - Four Buildings	7.20	153,400	3,240,200	4,624.0
15	Domestic Hot Water Control - Seven Buildings	7.35	62,500	3,302,700	1,857.9
16	Radiation Zone Control - Four Buildings	7.40	524,500	3,827,200	15,405.8
17	Reheat System Zone Control - Four Buildings	8.59	145,100	3,972,300	3,672.9
18	Animal Room Ventilation - Three Buildings	8.90	379,400	4,351,700	9,290.0
19	Animal Room Ventilation Improvements - Three Buildings	9.19	890,500	5,242,200	21,066.7
20	Radiation Zone Control - 28 Buildings	9.55	589,400	5,831,600	13,403.0

\*Payback calculated per IBHE instructions.



ENERGY CONSERVATION - URBANA CHAMPAIGN

Air Conditioning System Revisions - Law Building - (\$257,200)

This project will provide for converting individual direct expansion refrigeration units on each fan system in the Law Building to a common chilled water system with multiple chillers that can be operated to track cooling demand of the building and minimize resulting peak electrical demand. This new configuration will be compatible with the system in the future building addition and allow for extension of chilled water from the Library Air Conditioning Center.

Domestic Hot Water Control - Two Buildings - (\$14,800)

This project includes the installation of instantaneous water heaters, controls, pumps, and the removal of hot water storage tanks to reduce the steam used by the domestic hot water systems in Morrill Hall and Loomis Laboratory of Physics.

Temperature Control Remodeling and Replacement - 12 Buildings - (\$1,140,500)

This project will replace the existing controls in twelve buildings for 141 fan systems and 2,700 room thermostats. The controls presently operating in these buildings have, through deterioration over the years, become inefficient and obsolete. New sensors and signaling type controls will be installed to improve the ability to control space temperatures in these buildings.

The work will be performed in the following buildings:

Auditorium	Chemistry Annex
Library	Bevier Hall
Gregory Hall Phase II	Water Resources Building
University Press	Morrill Hall
Smith Memorial Hall	Animal Science Laboratory
Noyes Laboratory	College of Veterinary Medicine

Conversion to Central Fan System - Armory (\$81,400)

This project provides for the removal of motors, fans, and filters from 56 fan coil units, increasing the duct size to each fan coil unit, and the installation of a bypass valve on each fan coil unit heating coil. Also included is the changing of the thermostat from summer/winter to only heating stat, installation of larger exhaust fans, and the installation of heating and cooling coils in large supply fans on the mezzanine.

Reheat Systems - Zone Control - Fourteen Buildings - (\$414,200)

This project is to reduce the steam used by the reheat systems located in the ventilation systems of fourteen ventilated buildings. The project includes the installation of valves and controls to isolate the systems by zones and to shut off the converters and pumps at a predetermined outside and space temperature.

The work will be performed in the following buildings:

Burnsides Research Laboratory	Materials Research Laboratory
Civil Engineering Building	Natural Resource Studies Annex
University Press	Rehabilitation Center
Veterinary Medicine Complex	Medical Sciences Building
Water Resources Building	Law Building
Foreign Languages Building	Animal Science Laboratory
Children's Research Center	Smith Memorial Hall

Install Air Curtains above Entryways - Three Buildings - (\$46,000)

This project will provide for the installation of five air curtains over the entrances to prevent cold drafts of outside air from entering the buildings (and resulting structural heat loss) as follows:

Library - north and south main entrance  
Institute of Labor and Industrial Relations - south entrance  
Armory - northeast and southwest entrance

Summer-Winter Ventilation Rate - Three Buildings - (\$40,700)

This project will provide the capability to operate fifty fan systems at lower ventilation rates during the heating season. Savings will result from a reduction of outside air which requires heating prior to delivery to the building space.

The work will be performed as follows:

Psychology Building	18 fan systems
Law Building	16 fan systems
Music Building	16 fan systems

Conversion to Zoned Ventilation - Arts/Design Building - (\$194,700)

This project provides for the removal of the existing mixing boxes and room thermostats and the installation of heating and cooling coils in each of the hot and cold ducts. Also included are controls for separating each floor in the building into north and south zones and the installation of a duct between the main duct and the room service duct for each supply.

Radiation - Zone Control - Seven Buildings - (\$104,400)

This project includes the installation of two zone valves, two zone thermostats and two controllers, referred to outside temperatures on the steam supplied radiation in six of the seven buildings listed.

This will reduce the amount of steam used by the radiation systems. In the Art and Design Building, the work includes the same as above plus a normally closed valve on the steam to water heat exchanger.

Art & Design and Krannert Art Museum  
Materials Research Laboratory  
Aero Lab A & Brake Shoe Laboratory  
Digital Computer Laboratory

Harding Band Bldg.  
Astronomy Building  
Chemistry Annex

Pipe Insulation - Electrical Engineering Building - (\$33,600)

This project includes the insulation of hot surfaces throughout the building, such as steam and condensate lines from the building entrance to zone valves, hot surfaces on converters and steam absorption machines, and exposed piping throughout the building to prevent heat from escaping through an uncontrolled source in the Electrical Engineering Building.

Reheat Systems - Zone Control - Eleven Buildings - (\$282,000)

This project is to reduce the steam used by the reheat system associated with the ventilation system of several buildings. Included is the installation of a time clock, zone valves, a normally closed steam valve on the steam to water heat exchangers and a controller to operate the systems according to outside temperatures.

The work will be performed in the following buildings:

Harding Band Building  
Commerce West  
Coordinated Science Laboratory  
Electrical Engineering Building  
Art & Design and Krannert Art Museum  
Library Seventh Addition

Psychology Lab  
Altgeld Hall  
Astronomy Building  
Electrical Engineering Annex  
Levis Faculty

HVAC Retrofit - Two Buildings - (\$453,100)

This project provides for the replacement of the dual duct ventilation systems in Loomis Laboratory of Physics and the Materials Research Laboratory with a variable air volume (VAV) system. Included in the project are thirty fan systems and 430 variable volume units, one in each room of both buildings. This modification will use less energy to produce the room temperatures desired because the systems will not heat and cool simultaneously.

Domestic Hot Water Control - Four Buildings - (\$24,200)

This project includes the controls to shut off the domestic hot water systems during the unoccupied time period for each building as follows. Work involves the installation of one time clock, one control valve and controller, and one P. E. switch on each of the domestic water systems.

The work will be performed in the following buildings:

Natural Resource Studies Annex  
Burnsides Research Laboratory  
Foreign Languages Building  
Medical Sciences Building

Steam Absorption Machine - Control - Four Buildings - (\$153,400)

This project includes the installation of air operated automatic steam control valves, the removal of solution control valves, and the installation of microprocessing control units. These modifications will reduce the amount of steam used to air condition the buildings.

The work will be performed on absorption machines in the following buildings:

Burnsides Laboratory      Rehabilitation Center  
Library Seventh Addition      Psychology Building

Domestic Hot Water - Control - Seven Buildings - (\$62,500)

This project includes the controls to shut off the domestic hot water systems during the unoccupied time period for each building, thus reducing the amount of steam utilized. Work involves the installation of one time clock, one control valve and controller, and one P. E. switch on each of the domestic water systems.

The work will be performed in the following buildings:

Animal Science Laboratory  
Institute of Labor and Industrial Relations  
Children's Research Center  
Administration Building  
Harding Band Building  
Astronomy Building  
Turner Hall

Radiation Zone Control - Twenty-eight Buildings - (\$524,500)

This project includes the installation of the following control devices in the heating systems of the twenty-eight buildings:

zone thermostats	outside sensing controllers
zone valves	float and thermostatic traps
time clocks	condensate return piping
insulation	control tubing

The purpose of the installation is to reduce the uncontrollable heat input to the building during the heating season.

The work will be performed in the following buildings:

Children's Research Center	Natural Resources and Garage
Burnsides Research Laboratory	Noyes Laboratory
Commerce West	Personnel Services Building
Psychology Laboratory	Physics Research
Rehabilitation Center	President's House
Foreign Languages Building	Stock Pavilion
Animal Science Laboratory	Talbot Lab
Altgeld Hall	Transportation
Agriculture Engineering Research	Arcade
Ceramics	Electrical Engineering Annex
Fire Station	David Kinley Hall
Lincoln Hall	Harker Hall
Mumford Hall	English Building
Natural History	Dairy Manufactures Building

Reheat System - Zone Control - Four Buildings - (\$145,100)

This project is to reduce the steam used by heat systems located in the ventilation systems of four buildings. It involves the installation of 750 reheat coils in 53 ventilation systems.

The work will be performed in the following buildings:

Digital Computer Laboratory  
Education Building  
Library  
Morrill Hall

Animal Room Ventilation - Three Buildings - (\$379,400)

The use of 100 percent outside air in ventilating animal room spaces in three buildings require large energy expenditures to maintain indoor conditions. This project will provide for the installation of thermal energy recovery devices which can reclaim up to seventy percent of the energy required for each fan system.

The work will be performed in the following buildings:

Psychology Laboratory  
College of Veterinary Medicine and Annex  
Morrill Hall

Animal Room Ventilation Improvements - Three Buildings - (\$890,500)

The use of 100 percent outside air in ventilating animal room spaces in three buildings requires large energy expenditures to maintain indoor conditions. This project will provide the installation of thermal energy recovery devices which can reclaim up to 70 percent of the energy required for each fan system.

The work will be performed in the following buildings:

Bevier Hall  
Burrill Hall  
Small Animal Clinic

Radiation Zone Control - Twenty-eight Buildings - (\$589,400)

This project includes the installation of 116 zone control valves, thermostats, and outside controllers and drip trap assemblies, 420 feet of condensate return pipe and insulation and 1260 feet of control tubing, all designed to reduce the amount of steam used by the radiation systems in twenty-eight buildings.

The work will be performed in the following buildings:

Civil Engineering Building	Davenport Hall
Education Building	Electrical Engineering Res. Lab.
Institute of Labor and Ind. Rel.	Engineering Research Laboratory
Morrill Hall	Levis Faculty Center
Physical Plant Service Bldg.	Huff Gymnasium
Veterinary Medicine Complex	Kenny Gymnasium
Water Resources Building	Speech and Hearing Clinic
Medical Sciences Building	Engineering Hall
Law Building	Coble Hall
Smith Memorial Hall	University High School Gym
Gregory Hall	College of Vet. Med. and Annex
Coordinated Science Laboratory	Wood Shop and Foundry
Library	Library Seventh Addition
Natural Resources Studies Annex	Turner Hall

PART V

FISCAL YEAR 1983 SPECIAL FACILITIES REQUEST

## SPECIAL FACILITIES

Two projects are described in this segment. These projects receive separate attention from the remaining capital projects due to the unusual circumstances regarding their use and financing method.

The Illinois Fire Services Institute has been charged by State law to train fire services personnel throughout the State. The law further states that a fire academy should be established and provides for capital funding. Due to this special mandate, the proposed capital projects for the Illinois Fire Service Institute are included in this segment.

Current facilities for the Urbana-Champaign Campus Police are inadequate for public safety activities. The campus has begun to search for an appropriate replacement facility. It is expected that the purchase of a proper facility will be included in the FY 1983 Capital Budget Request as a noninstructional capital improvement.



FIRE SERVICES INSTITUTE  
URBANA-CHAMPAIGN CAMPUS

To adequately respond to the legislative mandate and serve the State-wide need for firemanship training, the Fire Services Institute must expand and consolidate its existing facilities. At present, the Institute's offices are located in a University-owned house on the north side of the Urbana campus. Its single instructional facility, a five-story fire tower, is located on the south end of the campus. The fire tower meets only a small portion of the Institute's needs for instructional space. It has no classroom or laboratory space and was not designed to simulate the range of fire fighting conditions which are necessary to properly prepare students in modern methods of fire fighting. When programs require classroom space, the Institute must attempt to schedule the use of rooms in the Illini Union or in other campus facilities. However, due to the high utilization of classroom space by the Urbana campus and steady demand for space in the Illini Union, it is often difficult to schedule adequate facilities for the Institute's programs.

Construction of a classroom/office building and several other instructional and instructional-support facilities at the fire tower site are needed for the Fire Services Institute to operate effectively. The following describes each needed facility and the manner in which the facility will contribute to the Institute's instructional mandate.

Classroom/Office Building - The classroom/office building will be the Institute's central facility. The building will accommodate instructional and study space, faculty offices, and fire apparatus and equipment storage. Approximately 11,000 net assignable square feet will be necessary to comfortably accommodate students receiving up to 40 hours of instruction per week. The proximity of the classroom/office building to the fire tower and other proposed fire simulation areas will eliminate the interruption of instructional time required by the transportation of students several miles from classrooms on campus to the fire simulation area. Construction of the classroom/office building has been estimated at approximately \$1,150,000 excluding contingencies and fees.

Structural Burn Building - The structural burn building is a two-story structure of fire resistive construction which is used to demonstrate the nature of interior fires and methods of combating fires. Several areas of the building are intended to simulate the following:

1. A residential bedroom suite,
2. A living room,
3. A kitchen and dining room,
4. A motel room - hospital/nursing home room (adjoining), and
5. A store display and storeroom.

By locating the structural burn building on the same south campus area as the classroom/office building, fire fighting instruction will be able to combine classroom training and fire fighting demonstrations on a specific topic without disrupting instructional continuity. Excluding fees, contingency, and escalation, the estimated cost of facility construction is \$290,000.

Fire Tower - Remodeling the existing fire tower will increase the variety of fire fighting exercises that can be included in the Institute's instructional programs. Remodeling will include placing walls on the south and west on floors 3-6, flame proofing the second floor, and converting the first floor storeroom to an alarm and sprinkler test room. As with the structural burn building, the proximity of the fire tower and the classroom/office building will allow the effective combination of classroom instruction and fire fighting demonstrations. Fire tower remodeling costs estimated in March 1981 were \$194,000.

Volatile Materials Storage Building - This support facility will house volatile materials and the pumps and controls for the distribution of these materials to selected burn sites. The building will be vented, electrical service will be explosion proof, and spark producing materials will be minimized. Construction costs for the facility estimated in March 1981 were \$37,000.

Site Development - Site development work includes: construction of roads, drives, and walks; landscaping; granular fill perimeters for burn sites; institution of security measures; and installation of appropriate utilities. Current cost estimates for all site development work are \$738,000.

The total construction estimate for FY 1983 of all Institute facilities is approximately \$3,500,000. The current cost estimates have been developed as a portion of the Fire Services Institute Training Facility Master Plan which was funded by an FY 1981 appropriation. It is estimated that the University will receive \$825,000 in FY 1983 from the Fire Prevention Fund with a 5 percent annual growth thereafter. A large percentage of these funds appropriated to the Fire Services Institute are committed to finance the maintenance and expansion of program efforts. As a result, the Institute is unable to allocate more than \$300,000 - \$400,000 to finance capital improvement needs in any one year.

Since the Fire Services Institute legislation does not permit it to accumulate funds over several years, there are basically two alternatives for financing the \$3,500,000 of capital improvement needs: (1) The Fire Services Institute can devote \$300,000 - \$400,000 annually to construction. While this annual amount is sufficient to finance certain portions of total construction needs, the amount cannot fund construction of the classroom/office building in less than four years. Funding construction of a single building in this manner is infeasible. Also, it should be noted that each year that construction is delayed, costs will escalate. (2) The Fire Services Institute can seek bond funding to finance construction. It is proposed that the Capital Development Board, the State capital bond financing agency, sell bonds to fund all needed capital improvements. The University will repay the Capital Development Board with annual funds appropriated from the Fire Prevention Fund. If the bonds are purchased at 9 percent interest, the University will complete payments over twenty-five years at an annual payment rate of \$300,000 to \$350,000. The advantage of this financing method is that funds will become available to complete all construction over a several year period. With the completed facilities, the Institute will be able to carry out effectively its training mandate.

Weighing the benefits and disadvantages of both financing methods, it appears the second financing method, repaying the Capital Development Board for bond funding, is the most beneficial course for the University to pursue. This method allows construction to begin immediately on needed capital improvements with a secure source of funding available to make the necessary bond payments.

PROFESSIONAL ARTS BUILDING ACQUISITION  
URBANA-CHAMPAIGN CAMPUS

To better meet the facilities needs of the Campus Police Department, the Urbana-Champaign campus proposes to acquire a commercial building which has recently been offered for sale. The building, known as the Professional Arts Building, is located within the campus' northern master plan boundary at 501 South Sixth Street. This facility contains approximately 5,760 assignable square feet and would entirely replace the inadequate facilities currently used by the Police Department. Further, the acquisition of this facility would eliminate virtually all existing conditions which result in inefficient operation of the department.

The facility that the Campus Police Department is currently using for its headquarters contains 2,027 assignable square feet and is an old wooden Army barracks-type building constructed in 1945. Because of its age and type of construction, the building is expensive to maintain, impossible to upgrade, and is grossly inadequate for police operation both in quality and configuration of space. The effectiveness of the campus security force is greatly hampered by this lack of adequate physical facilities. In order to help alleviate the crowded space conditions, the Police Department was assigned an additional 2,551 assignable square feet of space in the nearby Engineering Research Laboratory in 1975. This added space relieved the space deficiencies but is primarily basement space which frequently floods, experiences extreme temperature fluctuations, and is poorly arranged.

The Professional Arts Building has been inspected by the campus administration and members of the Police Department. Upon examination of the facility, it was determined that most of the building's interior space can be used in its present condition or with only minor remodeling. It was also determined that the location of the facility is acceptable for the Police Department operation and that the department's vehicle parking requirements can be met by the surface parking lot located on the property.

This facility has also been inspected by the campus O & M Division and was found to be in generally good condition. However, certain building components such as roof coverings and mechanical systems are nearing the end of their life expectancy and may need to be replaced in the near future.

Other minor improvements include rest room modifications and the installation of ramps to meet handicapped accessibility requirements.

A firm price for this property has not yet been negotiated, but preliminary discussions with the owner suggest an asking price of approximately \$300,000 - \$350,000. The development of formal appraisals to establish a fair purchase price is nearing completion.

Providing that the University can negotiate a fair purchase price for this facility, it is proposed that the acquisition be financed from the proceeds of the sale of other University-owned property. At present, the University owns and maintains a number of rental properties outside of the campus master plan boundaries. These properties are essentially single family residences which do not contribute appreciably to the campus operation. The campus plans to sell these properties and use the revenue to acquire the Professional Arts Building and possibly other campus-related property as future funds permit.

This facility request is noninstructional. Upon review and approval of the University of Illinois Board of Trustees, this request will be submitted for consideration to the Illinois Board of Higher Education.