

The University of Pennsylvania Budget, FY 1987 by Glen R. Stine

The University of Pennsylvania budget for fiscal year 1986-1987 totals \$863 million. This compares with a revised budget total for FY1986 of \$815 million, and represents a 5.8% growth in expenditure.

Financial highlights of the budget include:

- The University's budget totals \$540 million, without Health Services, an increase of 8.6% over the Trustee approved FY1986 budget. Unrestricted expenditures are projected to grow 6.9%, while restricted expenditures are projected to be 12.4% over the Trustee approved budget. There is a discussion of the restricted budget changes made during FY1986 on page II.

- The HUP and CPUP budgets are \$231 million and \$92 million, respectively. These budgets are not growing nearly as fast as in previous years. The budget for the hospital assumes an excess of revenue over expenditures of \$8 million when stated in accordance with generally accepted accounting principles for universities and has been approved by the Hospital Trustee Board. Adult patient activity is expected to increase by .4% over fiscal year 1986 projections. A 9% increase is expected in charges to commercial insurance and self-pay in-patients. Total expenses are increasing 5.2% with salaries increasing 3.5% and supplies and other expenses increasing for inflation and for new programs.

- The University budget shows substantial growth in revenue from tuition and fees, gifts, sales, and grants and contracts, but very limited growth in

investment income and indirect cost recoveries.

- One major change in the FY1987 budget was the allocation of the cost of the University library system to each school. In previous years, it had been funded primarily from General University Resources.

- Expenditure increases are greater in salaries, energy costs and deferred maintenance than in recent years.

- Federal actions are having important budgetary effects, principally in limiting revenue increases in indirect cost recoveries and for student financial aid.

- The rate of growth in student charges has been reduced from 7.5% last year to 7% this year. Tuition is increasing 7.7%, room rates have increased 7% and dining rates 3%.

Key assumptions and decisions in budget preparation have gone through a very substantial process within the University. The process included major discussions with the Council of Deans, the Academic Planning and Budgeting Committee, and major University officers. The school and resource center budgets are the result of extensive discussions with the Provost and the various deans and directors. The budget objectives have been based on the University planning documents including, most importantly, "Choosing Penn's Future." As always, the budget

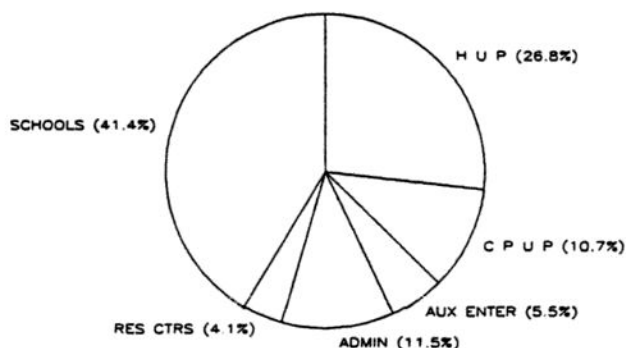
UNIVERSITY OPERATING BUDGET BY CENTER, FISCAL YEAR 1987

(in thousands of dollars)

REVENUES							EXPENDITURES						
Direct		General University Resources					Direct		Allocated Costs			Library	Total
Unrestricted	Restricted	Program Special	Program Regular	Financial Aid	University Bank	Total	Unrestricted	Restricted	Administrative Service Centers	Net Space			
Schools													
Annenberg School	1,149	5,460		513	34	6	7,162	301	5,460	975	45	381	7,162
Arts and Sciences	67,983	34,364		20,944	1,772		125,063	62,844	34,364	20,562	641	6,652	125,063
Dental Medicine	12,964	6,085	891	2,921	180	(100)	22,941	12,307	6,085	3,980	121	448	22,941
Education	5,091	1,356		579	122		7,148	4,504	1,356	986	20	282	7,148
Engineering	13,580	11,650		5,124	261	(22)	30,593	12,990	11,650	4,806	122	1,025	30,593
Fine Arts	6,544	1,415		3,190	140	(29)	11,260	7,104	1,415	1,747	66	928	11,260
Law	8,271	865		1,482	185	113	10,916	8,008	865	1,893	68	82	10,916
Medicine	29,186	71,343	3,965	1,977		63	106,534	15,271	71,343	17,165	434	2,321	106,534
Nursing	5,752	3,358		260	129	159	9,658	4,860	3,358	1,315	30	95	9,658
Social Work	1,359	520		1,337	31	(79)	3,168	1,822	520	356	7	463	3,168
Veterinary Medicine	15,608	8,344	11,710	1,202		(130)	36,734	22,140	8,344	5,756	152	342	36,734
Wharton	39,737	20,703		3,782	930		65,152	33,522	20,703	8,322	201	2,404	65,152
TOTAL	207,224	165,463	16,566	43,311	3,784	(19)	436,329	185,673	165,463	67,863	1,907	15,423	436,329
Resource Centers													
Annenberg Center	1,615	580		868			3,063	1,947	580	489	47		3,063
Intercollegiate Athletics	1,350	644		4,309			6,303	4,029	644	1,551	79		6,303
Interdisciplinary	950	7,910		4,034	14		12,908	3,793	7,910	1,180	25		12,908
Library	63	1,080					1,143	11,362	1,080	4,176	171	(15,646)	1,143
Museum	1,106	1,435	173	3,017			5,731	2,932	1,435	1,031	110	223	5,731
TOTAL	5,084	11,649	173	12,228	14		29,148	24,063	11,649	8,427	432	(15,423)	29,148
Admin. Service Ctrs.													
Student Services	13,249	1,040					14,289	13,249	1,040				14,289
General Administration	1,223	1,187					2,410	19,434	1,187	(18,211)			2,410
General Expense	1,283	211					1,494	28,046	211	(26,763)			1,494
Oper. and Maintenance							0	35,729		(35,729)			0
Net Space							0	2,790			(2,790)		0
TOTAL	15,755	2,438					18,193	99,248	2,438	(80,703)	(2,790)		18,193
Gen. Univ. Resources													
	82,722		(16,739)	(55,539)	(3,798)	19	6,665	6,665					6,665
Auxiliary Enterprises													
Residences	22,973	1,496					24,469	21,577	1,496	1,117	279		24,469
Dining	10,722						10,722	10,389		302	31		10,722
Bookstore	12,015						12,015	11,857		152	6		12,015
Parking	3,088						3,088	2,848		212	28		3,088
TOTAL	48,798	1,496					50,294	46,671	1,496	1,783	344		50,294
Total Unrestricted	359,583						359,583	362,320		(2,630)	(107)	0	359,583
Total Restricted		181,046					181,046		181,046				181,046
Health Services													
Hospital of Univ. of Pennsylvania		239,076					239,076	228,932	1,968		104		231,004
Clinical Practices		96,936					96,936	90,998	662		3		91,663
TOTAL		336,012					336,012	319,930	2,630		107		322,667
Total University	359,583	517,058	0	0	0	0	876,641	362,320	500,976	0	0	0	863,296

FY1987 TOTAL UNIVERSITY BUDGET

UNRESTRICTED & RESTRICTED EXPENDITURES
(\$863 million)



is based on balanced positions in all twelve schools, five resource centers and four major auxiliaries, as well as HUP and CPUP.

Characteristics of the University Budget

The University budget can be described in various ways. Figure 1 above shows the University budget by its major programmatic units. Those units include the schools and resource centers, the Auxiliary Enterprises, and the health services (the University Hospital and the Clinical Practices). Under the responsibility centered management system, each of these major direct entities must be able to balance revenues and expenses as well as pay an appropriate allocation of administrative and physical plant costs. The largest change in recent years, as shown in Figure 1 has come in the health services component, which, 10 years ago, represented only 22% of the budget.

Figure 2 distinguishes between unrestricted and restricted University revenues, excluding health services. Since a large share of restricted funds comes from governmental grants and contracts (labeled Sp Prog Rest), the proposed changes in federal policy and budgetary restrictions are especially troubling. Penn must look not only for increases in both unrestricted and restricted revenues, but also for ways to increase the portion of fixed costs covered within the restricted budget and thus relieve the financial dependence on unrestricted income, particularly tuition. The revenues labeled Invest Rest and Invest Unrest are the budgeted income from endowment and short term cash investments. Endowment income provides 3.5% of the budget.

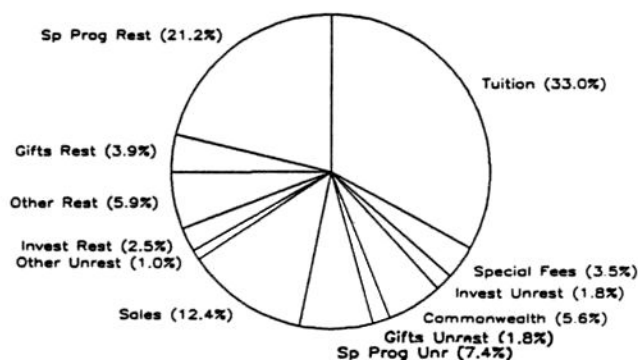
The University must implement its major academic objectives within even narrower constraints, as our budget system does not transfer funds from auxiliary enterprises to academic activities. Figure 3 presents the budget by type of organizational unit, restricted and unrestricted, for FY1987. It shows that of the total University budget—\$863 million—only 56.5% or \$488 million was available for academic units and resource centers within the University, with \$79 million of that amount going to pay for central administration and plant costs. As shown in the operating budget (page I), the economies of the various schools are significantly different. They range in size from Arts and Sciences at \$125 million to Social Work at \$3.2 million. The School of Medicine receives 67% of its income from restricted sources, while Law receives only 8% of income from restricted sources. Resource centers, while representing only 7% of the budget, use 22% of the University allocated subvention funds, even after the Library has been allocated to schools.

Within the academic budget, most revenues are naturally used by schools and resource centers; only a limited amount is available to the University for reallocation to meet special needs and activities, such as graduate fellowships, subsidies to cover the tuition of research assistants, and, in FY1987, undergraduate education and research facilities. Figure 4 shows the FY1987 unrestricted budget by type of expense item budgeted by schools and centers. These percentages have remained fairly constant over the last several years. The Spec Invest represents centrally retained funds for the special issues cited.

Figure 2

FY1987 REVENUE BUDGET

EXCLUDING HEALTH SERVICES
(\$540 million)

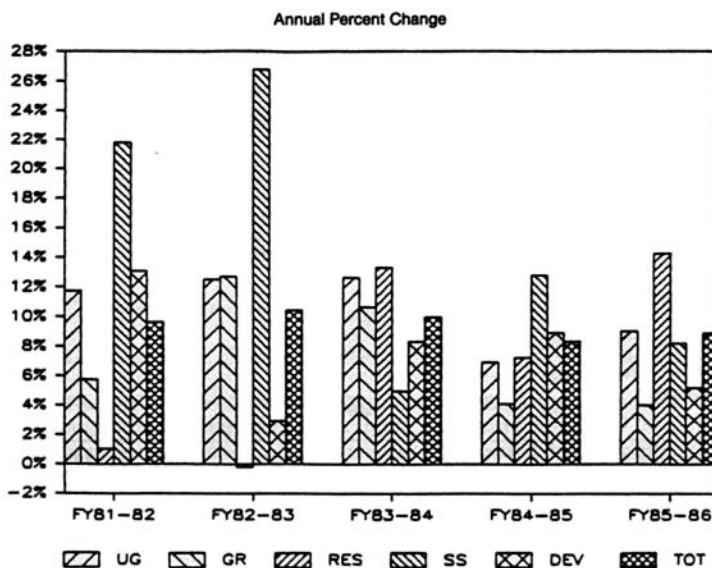


Review of Recent Trends

The University budget has shown, in recent years, a steady increase in the importance of certain revenue sources and a parallel decline in others. The graph below displays the revenue increases by the source of the revenue, with the fastest growth item being sales of service, which primarily relates to the major growth of clinic revenues at the two veterinary hospitals. Sales, however, represents the smallest total among revenue sources and applies to the fewest budgetary units.

The most critical change that occurred in the last two years is the slow down in the rate of growth of revenues paid by the University undergraduates and the return of a steady growth in research funds. As these two items represent 19% and 29%, respectively, of the FY1986 revenues, changes in these items are very significant.

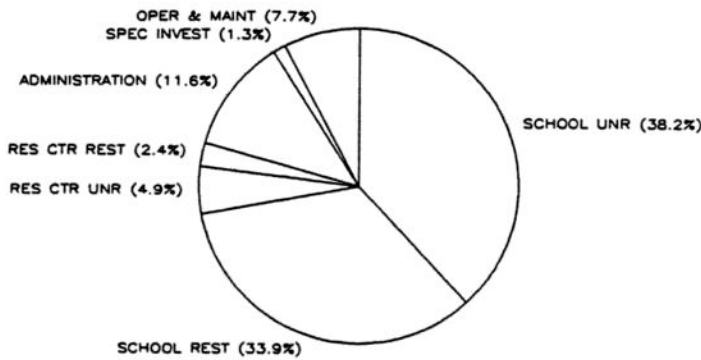
Pattern of Revenue Increase



The FY1986 budget had been prepared using projections of restricted expenditures based on 9 months of FY1985 expenditures. During the course of FY1986, the expenditure pattern changed significantly from budget. These changes are shown at right, along with FY1987 budget projections. Until FY1986 is actually closed, it is difficult to assess why these changes occurred, however, in the case of the Clinical Practices, almost \$4 million represents an overestimation of malpractice costs in the FY1986 budget. The Hospital also continues to attain a better bottom line than budgeted. In University academic areas, the gifts and grants and contracts are following expected, if not fully anticipated, patterns.

Figure 3

FY1987 ACADEMIC BUDGET UNRESTRICTED & RESTRICTED EXPENDITURES (\$488 million)



Basic Parameters and Assumptions

University budget planning for FY1987 started with a number of basic financial assumptions. For example, we assumed that inflation would continue at a relatively low growth rate, but that the University would face extraordinary cost increases in energy and insurance. Electric costs are projected to increase 15% and liability insurance is up over 65%. Thus, within the requirement of a balanced budget, we sought to meet key academic priorities and account for known events through initial parameters and assumptions. The first priority has been, and remains, significant real growth in faculty salaries, as well as enhancing Penn's competitive position in staff salaries. The budget meets these goals, as salary increases will average above the projected CPI increase and funds have been set aside to deal with significant special problems. This will mark the fifth consecutive year in which salary increases have averaged at least 2.5% above the CPI. In addition, we sought to reduce increases in student costs for tuition, room, and board. The increases in student costs for the University are 7.7% in tuition and general fee, down from an 8.3% increase in FY1986. The increases in both residential and dining costs have remained at approximately FY1986 levels. The overall undergraduate cost increase has been reduced to 7%, from 7.6% in FY1986.

The overall University enrollment continues to be stable or slightly growing. At a time when the number of 18 year-olds throughout the United States is declining, the University continues to experience increases in undergraduate applications, and there are some improvements in a number of graduate fields as well. Planned declines in the School of Dental Medicine have been completed, so enrollments should remain steady there.

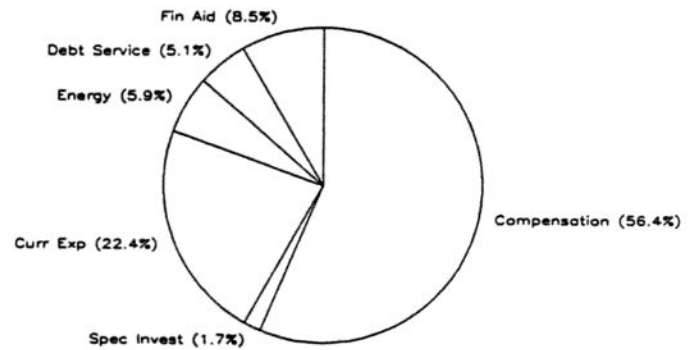
The other significant factors in developing the budget were assumptions about how federal and state policies would affect the University. During the course of planning the budget, our assumptions about these areas have changed several times. In FY1986, the University will receive an estimated \$142 million in sponsored program awards from federal sources. Our initial budget planning assumptions provided to schools in summer 1985 had not projected a change in the indirect cost calculations. However, proposed federal changes were integrated into budget planning as the year progressed and forced significant adjustment during the course of budget planning. Assumptions about the Commonwealth have also changed and expectations now are for a higher appropriation than initially estimated.

University Restricted Expenditures (in thousands of dollars)

	FY1986 Budget	FY1986 Proj. Act.	FY1987 Budget
Endowment	14,167	12,807	13,472
Grants and Contracts	101,069	110,439	114,953
Gifts	18,697	19,774	20,917
Other Restricted	27,128	30,217	31,704
Total Non-Health	161,061	173,237	181,046
CPUP	93,492	86,215	91,663
HUP	217,533	219,522	231,004

Figure 4

FY1987 UNRESTRICTED BUDGET BY EXPENDITURE TYPE (\$359 million)



Critical Academic Objectives

Any budget plan is based on a set of objectives and on strategies to accomplish those objectives. The primary University objectives are stated in the basic planning document published 3 years ago, after wide campus review. "Choosing Penn's Future" stressed these key goals:

- 1) The University should be committed to real growth in faculty salaries.
- 2) The University should maintain the quality and diversity of its student body, and should continue its need-blind admissions policy.
- 3) The University should strengthen undergraduate education as a specific objective of the entire institution.
- 4) The University should enhance its research capacity and make more competitive its ability to attract sponsored support.
- 5) The University should become more competitive with peer institutions in special areas related to its basic missions, including increased funding for graduate fellowships.

The University is continuing for the third year to impose a tight cost-containment program. Administrative costs in a number of areas have been held to minimum increases. Better management has allowed us to limit costs of employee benefits without reducing the benefits available to employees. This effort has yielded a reduction in employee benefit rate from its current 29.9% of salaries for full-time employees and 10.6% of salaries of part-time employees to rates of 28% and 9%, respectively, in FY1987.

On June 3, 1986, the federal Office of Management and Budget announced complex changes in rules governing the reimbursement of indirect costs on research. This announcement modified a previous announcement issued in February and is designed to reduce indirect cost allocations to universities by \$100 million annually. The original announcement sought a reduction of \$200 million.

In order to take into account the effect of these changes for FY1987, a series of contingency planning meetings were held with the schools primarily affected by the original proposed change. As a result, the current budget presentation provides for a significant reduction in indirect cost recoveries when compared with original budget planning projections. Indeed, though the analysis of the new federal proposal has not been completed, it appears that the reductions made in the contingency planning will exceed the reductions resulting from the new proposal, and, therefore, the recoveries proposed are conservative.

For the Commonwealth, the budget calls for a 5.7% increase over the current budget. The highest planned increase is 8.5% for the School of Veterinary Medicine items. Indications in Harrisburg suggest that these budgeted increases are optimistic, but obtainable. Two reasons for this optimism include a reasonable probability for special equipment funding for teaching facilities for a second year and a report calling for differential funding that the University has sought for cognitive sciences. Obviously, the state surplus is another positive factor.

The FY1987 budget is a compilation of hundreds of decisions based on thousands of factors. It is part of a continuing planning process to

enhance the academic goals and to protect the assets of the University. The FY1987 budget makes important strides to that end.

The FY1987 budget marks important steps to further each of these objectives. It provides for real growth in faculty salaries in each School, and a faculty salary reserve to meet special conditions and market problems. The maintenance of student diversity has been substantially addressed by implementation of the Penn Plan. This year the Penn Plan will be extended to many graduate and professional students, as well as maintained as an important part of assistance to new freshmen. These actions, together with over \$1.3 million additional unrestricted University resources, will allow Penn to maintain the need-blind admissions policy. This commitment can be maintained even in light of proposed federal actions to reduce financial aid funding.

The University recently announced two new academic investment funds—one to enhance undergraduate education and one to revitalize research facilities throughout the campus. The Undergraduate Development Fund will provide significant funding in FY1987 to extend the objectives of the Writing Across the Curriculum program to all of the undergraduate schools, to reinvigorate the freshman seminars program and to develop a sequence of courses on technology in the Engineering School for non-majors. The completed renovation of the Quad has also allowed for the limited implementation of a new Freshman Year program to enhance the freshman experience while in the residential system. This program is to be extended in future years. Both of these funds are central efforts in strengthening the University. In addition, a number of new research facilities—including the Mudd Plant Sciences Building—will be opening during FY1987, and should extend our research capacity. The budget provides for both the operation and programmatic development of these facilities. A new computer communications network is being tested on campus and will also be operational during FY1987. Funds are provided in this budget for completion and maintenance of the network, though additional funds will be needed to provide in-building links to the network.

The FY1987 budget should also improve our competitive position in other areas related to research and graduate support. It provides for a 17% increase in graduate fellowship funding, expanding a centrally supported fund from \$3 million to \$3.5 million for FY1987. Second, the budget continues the research assistants' tuition support program, which was established in the FY1985 budget. This program has significantly increased the number of research assistants, particularly in Arts and Sciences and Engineering. The University will increase funding for the program by an additional 25% next year. Third, the University will establish in the operating budget a Research Fund to support research efforts by the faculty. This Fund will be combined with the Research Foundation's allocations to substantially supplement external funded research, particularly in areas where shifts in faculty research interests are occurring.

Major Budgetary Issues

This budget initiates a major expansion of the program to preserve the University's physical assets. Last year an extensive study of maintenance problems on the campus was conducted, and over the next 5 years, more than \$26 million will be used to meet acute maintenance needs on campus. In addition to these funds, the budget continues progress toward major renovations of the Quad Dorms, major animal laboratory renovations, and renovations of Franklin Field and Hayden Hall. All of these address significant deferred maintenance issues.

This budget will also take advantage of the superior investment performance last year in the endowment as it proposes to reduce the University's spending rule from 6.1% of endowment value in the current year to 5.5% for FY1987. This will improve the long-run capacity of the University to provide funds for the future and will conclude the effort started in 1981 to reduce the rate of endowment spending within the University from 6.7%. The policy has enabled reinvestment of over \$35 million of income to date. Even with this reduction in the rate of spending, thanks to the continued excellent endowment performance, there will be a 10.1% increase in spendable endowment income. Past expenditure patterns suggest that the actual growth in expenditures from endowment will be somewhat lower. The investment income, however, from temporary cash investments, after a number of years of substantial growth, is not projected to grow due to interest rate decline.

Assessing the Future Position

The University's budget performance over the last 5 years has been excellent. The average rate of expenditure increase has been 9%, even with inflation averaging less than 5%. The FY1986 and FY1987 budgets are beginning to suggest a moderation in the growth of the University's revenue to support the major expenditure growths.

The major trends and assumptions in the future suggest the potential for an even more modest rate of growth in the University's revenues. These trends include:

- The stability of student enrollments (with potential declines in evening and summer school enrollments) after several years of modest increase.
- Reduced rates of increase in tuition and fee charges as competitive pressures increase and federal financial aid continues to decline.
- Pressure from the federal government to reduce research funding and to pay a decreasing portion of the fixed costs associated with research.
- Potential tax law changes making gift giving less advantageous to the donor.
- Lowered return of investments as interest rates moderate.
- Limited growth in clinical income with the implementation of new reimbursement regulations.

Offsetting these trends somewhat are:

- The ability of the University to develop new research efforts or to become more competitive in existing programs. Examples include the Plant Sciences Institute, the Center for Sensor Technology, and the Clinical Sciences Research Building. Many of these activities require up front investments.
- The ability of the University to develop new academic efforts, such as the Wharton Executive Education and the Appropriate Technology program and an undergraduate major in Cognitive Sciences.
- Continued improvement in fund raising throughout the University.

On the expenditure side, there are a number of issues and events that will affect the operating budget. These include:

- The development and impact of technology changes on the University, including the implementation of the communications network.
- The construction and programming of four new facilities, plus a number of smaller buildings, including the Clinical Research building, the Wharton Executive Education Center, the Engineering Wing, and 3401 Walnut.
- Increasing competition providing pressure to maintain high rates of salary increases relative to inflation. This year has brought an extraordinary number of outside offers to important faculty.
- Given the specialized nature of academic activities, limited ability to improve productivity.
- The need to systematically address the maintenance of the University's physical plant.
- The continuing pressure and need to enhance quality in academic and administrative areas.
- The need to meet extraordinary cost increases generated by external environment. For example, a weakened dollar will generate significant increases in foreign publication prices.

Offsetting these cost pressures can be a number of approaches to cost containment.

- The development of a co-generation facility with long term energy cost savings.
- The substitution of rental cost paid to external agencies for space in new University buildings, thus partially offsetting new fixed costs.
- The use of a reallocation budget strategy instead of basic add-ons, particularly in using restricted funds to pay fixed costs.
- Management address of productivity issues and administrative efficiency, particularly through automation. Significant results of management efforts in this year's budget, such as the major drop in the employee benefit rate, need to be duplicated in other areas of the budget.

Forecasting the University's financial future, therefore, involves a complex set of assumptions about many interrelated variables. The last several years have suggested that, except for regular tuition revenues, these variables change in a sporadic, non-linear fashion.

The University has had a balanced budget for over a decade. It has the means to continue to do so. However, if certain policy changes are made or if external circumstances require, the University is likely to have to considerably restrict its expenditure growth rates. At a time when the University seems poised to make considerable strides, such restrictions will require careful and prudent planning, not just for budgetary balance, but to insure balance among its most important objectives.