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ABSTRACT

The financial condition of independent higher education in Pennsylvania is examined based on data provided by 62 independent colleges and universities. Results of the study indicate: (1) Although the absolute enrollment in the independent sector of higher education continued to increase during the 10-year period, 1963-72, the independent sector's share of enrollment declined 13.9 percent. (2) The productivity of independent higher education institutions is shown by their degree output, which was 47.5 percent of the state total in 1972. (3) As a group the Commission for Independent Colleges and Universities (CICU) institutions reported an operating deficit of \$4.6 million in 1969-70 but a \$5.5-million surplus in 1971-72, a difference of +\$10.1 million. (4) Of the six major operating accounts, only the educational and general account showed significant improvement, 1969-72. (5) Additions to plant during 1969-72 by CICU institutions amounted to \$330.9 million. (6) The average expenditure per fulltime equivalent student increased from \$3,764 in 1969-70 to \$4,057 in 1971-72. (7) The Pennsylvania Higher Education Assistance Agency reported an increase in the number of scholarships awarded to students attending CICU institutions from 20,783 to 23,093, 1969-72, an increase of 11.1 percent. (8) The book value of endowment funds of CICU institutions increased from \$558.2 million to \$744.7 million, 1969-72. (9) The liquid net worth of CICU institutions increased, 1969-72, from \$311.5 million to \$335.5. (Author/MJM)

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Update Study of the Financial Condition of Independent Higher Education in Pennsylvania

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SUMMARY

In September 1970 the Commission for Independent Colleges and Universities (CICU) engaged McKinsey & Company, Inc. to study the financial condition of independent higher education in Pennsylvania. This study also was encouraged by the Council of Higher Education of the Pennsylvania State Board of Education. The 1971 McKinsey report described a steady fiscal deterioration with prospects for increasingly large deficits. The 1972 updated McKinsey report saw some overall improvement, but the number of institutions experiencing negative operating results in excess of six per cent of expenditures increased from six to nine despite sharp increases in tuition.

The present study was conducted by the Pennsylvania Department of Education with the support of the CICU and the Pennsylvania State Board of Education. Operationally, it was a joint effort of the Division of Educational Statistics and the Division of Research in the Pennsylvania Department of Education. Cooperation was received from 62 of the 68 independent colleges and universities which participated in the original McKinsey study. This study used the nine data collection forms designed by McKinsey & Company, Inc. Highlights of the present study follow.

Enrollment

Although the absolute enrollment in the independent sector of higher education continued to increase during the 10-year period, 1963-72, the independent sector's share of enrollment declined 13.9 per cent. During 1969-72 the 62 CICU institutions reported in this study had a gain of 1,369 students, but the six nonreporting institutions had a loss of 587 students. Thirty-eight institutions in this study had increases in enrollment while 24 had small losses.

In the fall of 1973, the 62 institutions reported an enrollment decline of 805 students over 1972, while state-related universities and community colleges (the public sector) added 10,146 students.

Degree Output

The productivity of independent higher education institutions is shown by their degree output, which was 47.5 per cent of the state total in 1972. Although this was a drop from the 59.5 per cent of the degrees granted in 1963, the actual number of degrees awarded grew from 20,647 in 1963 to 33,994 in 1972.

General Financial Status

As a group CICU institutions reported an operating deficit of \$4.6 million in 1969-70 but a \$5.5 million surplus in 1971-72, a difference of +\$10.1 million. Nineteen of these institutions, representing 35 per cent of CICU enrollment, however, had an operating deficit for one or more of the three-year period. Of these 19 institutions, 11 reported positive operating results, by 1971-72.

Operating Results by Account

Of six major operating accounts, only the educational and general account showed significant improvement, 1969-72. This improvement amounted to \$12.8 million. Among the deficit accounts the student aid account lost the most ground, increasing a deficit of -\$22.6 million to -\$23.3 million.

Plant Fund Results

Additions to plant during 1969-72 by CICU institutions amounted to \$330.9 million. Plant fund results showed a deficit of -\$74 million in 1971-72, indicating a continuation of the trend shown in the two prior McKinsey reports.

Per Student Expenditures

The average expenditure per full-time equivalent student increased from \$3,764 in 1969-70 to \$4,057 in 1971-72. This increase of \$293 represented an annual rate of increase of 3.9 per cent.

Per student expenditures, 1969-72, increased in the educational and general account by \$160; faculty salaries, \$67; library, \$107; plant maintenance, \$31; general administration, \$50 and research, \$24.

State Aid to Students

The Pennsylvania Higher Education Assistance Agency reported an increase in the number of scholarships awarded to students attending CICU institutions from 20,783 to 23,093, 1969-72, an increase of 11.1 per cent. These scholarships amounted to \$19.1 million, with a value of \$828 each in 1971-72. In 1972-73 these awards were increased to \$878 per student.

In 1971-72 PHEAA administered guaranteed loans provided students \$24.4 million, averaging \$1,230 per student.

Endowment Funds

The book value of endowment funds of CICU institutions increased from \$558.2 million to \$744.7 million, 1969-72, an increase of \$186.5 million and an average rate of 16.7 per cent. The return on these funds increased from \$24.7 million to \$25.3 million.

Liquid Net Worth

The liquid net worth of CICU institutions increased, 1969-72, from \$311.5 million to \$335.5 million, an improvement of \$24 million and an average rate of 3.9 per cent. The liquid net worth of the various CICU institutions having an operational deficit one or more years, 1969-72, varied from a negative result to a positive \$120.1 million.

Rehabilitative Measures

CICU institutions increased their student-faculty ratio, 1969-72, by an average annual rate of 1.57 per cent, falling short of the two per cent per year goal suggested by the McKinsey report. Group F having large graduate programs had a student-faculty ratio of 8.5 to 1.

Enrollment growth dropped to 0.58 per cent per year in 1972-73 for independent higher education, a lower rate than the one per cent decrease per year proposed by the McKinsey report. A correlational analysis of enrollment growth and operational results for the 19 institutions having operational deficits, one or more years, 1969-72, indicated, however, only an $r = .361$ relationship, leaving 87 per cent of the variance attributable to factors other than enrollment change.

Reduction of student aid below the 16 per cent of tuition and fees, as recommended by the McKinsey report, has been achieved with an average of 14.9 per cent. On the other hand, instead of reducing administrative and general expenditures by two per cent per year, CICU institutions increased these expenditures at an annual rate of 8.2 per cent per year from 1969 to 1972.

Nonutilized institutional capacity for desired enrollment of about 9,000 students among CICU institutions may call for the liberalization of admissions procedures.

Other measures for consideration to improve operating results at some CICU institutions include making auxiliary enterprises self-supporting, reduction of debt service, more efficient use of computers, strategic deployment of student aid funds, recognizing the close relationship between tuition and fees and the rate of increase of annual personal disposable income, building larger endowment funds and actively seeking higher annual rates of return, consistent with prudent investment practice, maximizing earned income from liquid net worth funds, larger PHEAA scholarship grants and loans.

UPDATE STUDY OF THE FINANCIAL CONDITION OF INDEPENDENT HIGHER EDUCATION IN THE COMMONWEALTH OF PENNSYLVANIA

The Commission for Independent Colleges and Universities in Pennsylvania authorized a study by McKinsey & Company, Inc. on the financial condition of independent education in Pennsylvania, February 1971 and February 1972. The State Board of Education with the cooperation of CICU proposed that the Pennsylvania Department of Education update this study of independent higher education.

This study reexamines the financial condition of independent higher education and presents results according to the six groups used in the McKinsey reports: Group A--two-year and specialized institutions; Groups B, C and D--four-year college institutions, subgrouped by enrollment and expenditures; Group E--universities with substantial graduate programs and Group F--strongly research-oriented universities in addition to graduate programs. The names of the institutions included in each group appear in Appendix A.

Impact of Independent Higher Education--Enrollment

Nationally, private higher education dominated the scene for the first 140 years before the Republic and during the first century of the life of the Republic.¹ With increasing support for public higher education institutions, the total enrollment of independent higher education declined to 25 per cent in 1970 and is projected to drop to 21 per cent by 1980 in the nation.²

In contrast to the national trend, independent higher education in Pennsylvania had 44.5 per cent of total full-time equivalent enrollment in 1970, 44.2 per cent in 1972 and is projected at 41.1 per cent in 1980. As shown in Table 1 the independent sector's share of total enrollment declined by 13.9 per cent, 1963-72, and is projected to decline 2.7 per cent more by 1980.

Enrollment in the public sector of higher education increased from 41.9 per cent of total enrollment in 1963 to 55.8 per cent in 1972, and is projected to reach 58.9 per cent in 1980. The CICU participating institutions, however, based on the 1969-72 trend, are expected to have limited growth in total enrollment.

¹McGrath, Earl J. "Survival Kit for the Liberal Arts College," The Chronicle of Higher Education, January 10, 1972, p. 8.

²A Digest of Reports and Recommendations, Carnegie Commission for Higher Education, 1971, p. 88.

Table 1

Full-Time Equivalent Enrollment in Higher
Education Institutions by Category:
Actual 1963-72 and Projected 1973-80*

| Year | Total | Public Sector | Per Cent | Independent Sector | Per Cent |
|------|------------------|------------------|-------------|-----------------------|-------------|
| 1963 | 189,689 | 79,509 | 41.9 | 110,180 | 58.1 |
| 1964 | 207,110 | 89,361 | 43.1 | 117,749 | 56.9 |
| 1965 | 236,256 | 107,279 | 45.4 | 128,977 | 54.6 |
| 1966 | 258,600 | 123,988 | 47.9 | 134,612 | 52.1 |
| 1967 | 279,983 | 142,116 | 50.8 | 137,867 | 49.1 |
| 1968 | 298,422 | 159,227 | 53.4 | 139,195 | 46.6 |
| 1969 | 318,335 | 173,240 | 54.3 | 145,095 | 45.7 |
| 1970 | 331,236 | 183,834 | 55.5 | 147,402 | 44.5 |
| 1971 | 350,052 | 194,736 | 55.6 | 155,316 | 44.4 |
| 1972 | 354,585 | 197,713 | 55.8 | 156,872 | 44.2 |
| | <u>Projected</u> | | | | |
| 1973 | 358,132 | 201,432 | 56.2 | 156,700 | 43.8 |
| 1974 | 362,931 | 205,898 | 56.7 | 157,033 | 43.3 |
| 1975 | 369,798 | 211,032 | 57.1 | 158,766 | 42.9 |
| 1976 | 376,165 | 216,199 | 57.5 | 159,966 | 42.5 |
| 1977 | 383,466 | 221,533 | 57.8 | 161,933 | 42.2 |
| 1978 | 386,565 | 224,866 | 58.2 | 161,699 | 41.8 |
| 1979 | 386,998 | 226,366 | 58.5 | 160,632 | 41.5 |
| 1980 | 385,065 | 226,899 | 58.9 | 158,166 | 41.1 |

*Using the ratio of three part-time students as equivalent to one full-time student, this table shows the FTEE's for the public sector including state-owned, state-related and community colleges. The independent sector includes private state-aided and private nonstate-aided. Data came from Projections to 1982-83, Division of Educational Statistics, Bureau of Information Systems, Pennsylvania Department of Education, 1973, p. 11.

Total full-time equivalent enrollment in CICU higher education institutions in the Commonwealth was 137,382 in 1969-70, 140,168 in 1970-71, 143,692 in 1971-72 and is projected at 157,129 in 1975-76. This projection may not be fully reached because of such factors as rising tuition and the declining number of high school graduates after 1975. The average annual growth rate was 1.97 per cent in 1970-71 and 2.55 per cent in 1971-72, an improvement of 0.58 per cent, with the average annual growth rate for enrollment, 1969-72, at 2.26 per cent.

In the public sector of higher education, the comparable annual growth rate of enrollment was 6.1 per cent in 1970-71, 5.94 per cent in 1971-72 and 1.53 per cent in 1972-73. The independent sector enrollment growth rate also dropped significantly to 0.58 per cent in 1972-73.

The revised higher education enrollment projections of the Carnegie Commission for the nation show average annual rates of +3.2 per cent, 1970-80; -0.78 per cent, 1980-90 and +2.6 per cent in 1990-2000.³ Enrollment growth in higher education in the nation and in the Commonwealth will, it appears, continue but at a long range slower pace.

Enrollment Holding Power

In the 1969-72 period the enrollment holding power of the CICU Groups A to F was rather good. Of 62 CICU institutions, 38 showed positive gains in enrollment while 24 showed small losses. Overall, the five groups gained 1,369 students, but for the six institutions not reporting financial data, the loss in enrollment was 587 students. Table 2 displays the data on holding power.

Table 2

Enrollment Holding Power of Independent Colleges, 1969-70 to 1971-72

| Group | Number of Institutions | Positive Average ¹ | Negative Average ¹ | Group Increase ² |
|-------|------------------------|-------------------------------|-------------------------------|-----------------------------|
| A | 6 | 5 | 1 | + 422 |
| B | 13 | 6 | 7 | + 11 |
| C | 26 | 14 | 12 | + 9 |
| D | 9 | 6 | 3 | + 46 |
| E | 5 | 4 | 1 | + 461 |
| F | 3 | 3 | 0 | + 420 |
| Total | 62 | 38 | 24 | +1,369 |

¹The average enrollment for 1969-70 to 1971-72 was compared with the enrollment for 1971-72.

²For the six schools that did not report financial data in this survey, the enrollment condition was three positive and three negative. The net enrollment condition for the six schools was a loss of 587 students.

Degree Output

The importance of independent higher education institutions is shown not only by total enrollment but by degree output. In the 1962-72 period the independent sector of higher education produced an average of 53.7 per cent of the graduates although it had only 49.6 per cent of

³The Higher Education Chronicle, October 1, 1973, p. 6.

the total enrollment, a gain of 4.1 per cent in output over that of the public sector. The degree output of the independent sector is projected to increase from 33,994 in 1971-72 to 38,500 in 1979-80. These data are shown in Table 3.

Table 3

Total Bachelor Degree and Higher Output of Pennsylvania Higher Education Institutions, 1962-63 to 1971-72, With Percentages for Public and Independent Sectors, and Projections*

| Year | All Institutions | State-Owned State-Related Institutions | Per Cent | Independent Institutions | Per Cent |
|---------|------------------|--|----------|--------------------------|----------|
| 1962-63 | 34,704 | 14,057 | 40.5 | 20,647 | 59.5 |
| 1963-64 | 38,759 | 16,133 | 41.8 | 22,446 | 58.2 |
| 1964-65 | 40,543 | 17,526 | 43.2 | 23,017 | 56.8 |
| 1965-66 | 41,972 | 18,349 | 43.7 | 23,623 | 56.3 |
| 1966-67 | 45,030 | 19,862 | 44.1 | 25,168 | 55.9 |
| 1967-68 | 51,592 | 23,200 | 45.0 | 28,392 | 55.0 |
| 1968-69 | 59,149 | 28,556 | 48.3 | 30,593 | 51.7 |
| 1969-70 | 62,086 | 30,826 | 49.7 | 31,260 | 50.3 |
| 1970-71 | 66,440 | 34,237 | 51.5 | 32,203 | 48.5 |
| 1971-72 | 71,523 | 37,529 | 52.5 | 33,994 | 47.5 |
| | <u>Projected</u> | | | | |
| 1972-73 | 74,200 | 39,200 | 52.8 | 35,000 | 47.2 |
| 1979-80 | 82,800 | 44,300 | 53.5 | 38,500 | 46.5 |

*Data and projections are from Projections, Pennsylvania Department of Education, Division of Educational Statistics, Bureau of Information Systems, 1973, p. 16ff.

General Financial Condition of CICU Higher Education Institutions⁴

A financial summary for each group and all groups appears in Appendix B. For all groups A to F, total current revenues were \$512.5 million in 1969-70, \$547.2 million in 1970-71, \$588.5 million in 1971-72 and are projected to be \$795.9 million in 1975-76. For all groups total expenditures were \$517.1 million in 1969-70, \$543.5 million in 1970-71, \$582.9 million in 1971-72 and are projected to be \$749.4 million in 1975-76. Operating results showed a deficit of -\$4.6 million in 1969-70

⁴The 1971 McKinsey report reflected financial data from 64 institutions. The 1972 updated McKinsey report was based on 61 institutions. The present report is based on 62 institutions and updated data.

a surplus of \$3.7 million in 1970-71 and a surplus of \$5.5 million in 1971-72, making an overall improvement, 1969-72, of \$10.1 million. The projected operating result for 1975-76 is a surplus of \$46.5 million for all groups.

These total results for the CICU institutions assume a continuation of the trends of the 1969-72 period. They could be changed by such factors as inflation, increased student aid and significant reduction in income resulting from loss of students, reduction in endowment income and private gifts and grants.

While in total the financial results for CICU institutions are generally favorable, they should not be permitted to conceal the unfavorable situation of some of them. As shown in Table 4, of the 62 institutions of this study 43 or 69.5 per cent had an overall operating surplus, 1969-72, while 19 institutions, or 30.6 per cent, had an overall operating deficit.

Table 4

Change by Group in Institution Financial Operating Result
1969-70 to 1971-72

| Group | Number of Institutions | Institutions With Operating Surplus | | Institutions With Operating Deficit | |
|-------|---------------------------|--|----------|--|----------|
| | | Number | Per Cent | Number | Per Cent |
| A | 6 | 3 | 50.0 | 3 | 50.0 |
| B | 13 | 11 | 84.6 | 2 | 15.4 |
| C | 26 | 20 | 76.9 | 6 | 23.1 |
| D | 9 | 4 | 44.4 | 5 | 55.6 |
| E | 5 | 4 | 80.0 | 1 | 20.0 |
| F | 3 | 1 | 33.3 | 2 | 66.7 |
| Total | 62 | 43 | 69.4 | 19 | 30.6 |

The 19 institutions in a current operating financial deficit condition, 1969-72, had a total average enrollment of 49,491. This enrollment represented 35 per cent of the total enrollment of all 62 CICU institutions in this study.

Further analyzing the surplus or deficit financial operating condition of the CICU institutions, it was found that of the 44 institutions having a surplus, 1969-72, one had the same amount, 21 a larger amount, 17 a smaller amount and 5 went from a deficit to a surplus. Of the 15 deficit institutions in Table 5, 10 increased their deficit, 1969-72, four reduced their deficit and one went from a surplus to a deficit.

Table 5

Change by Group in Institution Financial Surplus
or Deficit Condition, 1969-70 to 1971-72*

| Group | Surplus | | | Deficit to Surplus | Deficit | | | Surplus to Deficit |
|-------|---------|------|------|-----------------------|---------|------|------|-----------------------|
| | Same | More | Less | | Same | More | Less | |
| A | 0 | 2 | 1 | 0 | 0 | 1 | 1 | 0 |
| B | 0 | 3 | 6 | 0 | 0 | 2 | 1 | 0 |
| C | 1 | 9 | 7 | 3 | 0 | 4 | 1 | 1 |
| D | 0 | 3 | 1 | 2 | 0 | 2 | 0 | 0 |
| E | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 0 |
| F | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 |
| Total | 1 | 21 | 17 | 5 | 0 | 10 | 4 | 1 |

*Three institutions in sample did not submit 1971-72 data.

As shown in Table 5, 43 CICU institutions improved their surplus condition, and of 15 deficit institutions, four reduced their deficit, one came from a surplus to a deficit and 10 had a greater deficit in 1971-72 than in 1969-70.

Any deficit is bad for the fiscal health of a higher education institution, but increasing the yearly deficit compounds the problem.

Comparative Annual Rates of Revenues
and Expenditures by Group

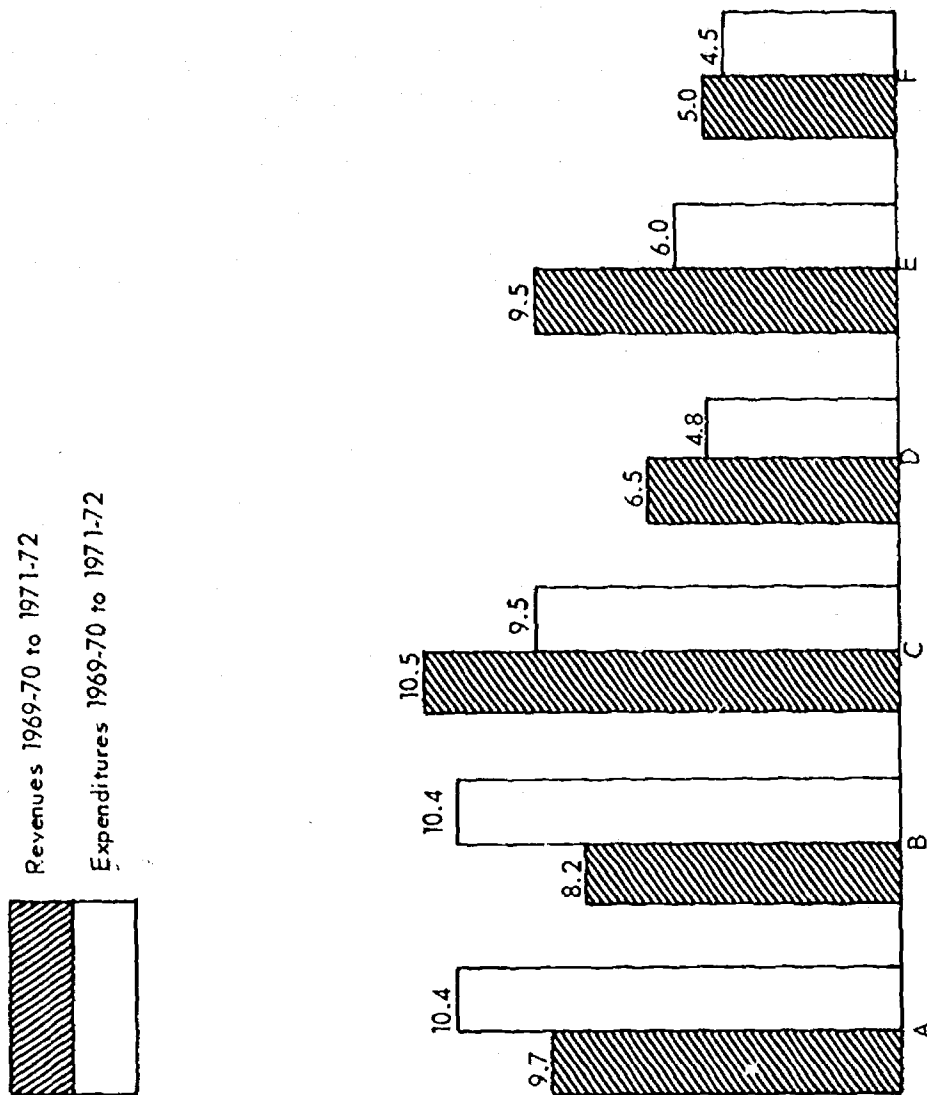
All but two groups of CICU institutions have had, 1969-72, a higher annual growth rate for revenues than expenditures. Groups A and B, however, had a deteriorating fiscal condition with an average rate of 9.7 per cent revenues to 10.4 per cent expenditures and 8.2 per cent revenues to 10.4 per cent expenditures resulting in negative operating rates of -0.7 per cent and -2.2 per cent, respectively (See Figure 1).

For all groups, A-F, the average annual growth rate for revenues was 7.4 per cent and for expenditures 6.2 per cent, providing an operating rate of 1.2 per cent. Group E had the best operating rate, 3.5 per cent.

Current Operating Result as a Percentage
of Current Expenditures

Figure 2 shows the number of CICU institutions having a favorable and unfavorable operating result for 1971-72 and indicates the percentage of total current expenditures represented by each. Nineteen institutions, for example, had a favorable operating result representing 0 to +2 per cent of total current expenditures and seven institutions a deficit operating condition ranging from 0 to -2 per cent.

COMPARATIVE ANNUAL GROWTH RATES OF REVENUES
AND EXPENDITURES, 1969-70 TO 1971-72, BY GROUP



(Scale - 1 per cent = .1 inch)

Figure 1

DISTRIBUTION OF INSTITUTIONS' CURRENT RESULTS AS A
PERCENTAGE OF CURRENT EXPENDITURES, 1971-72

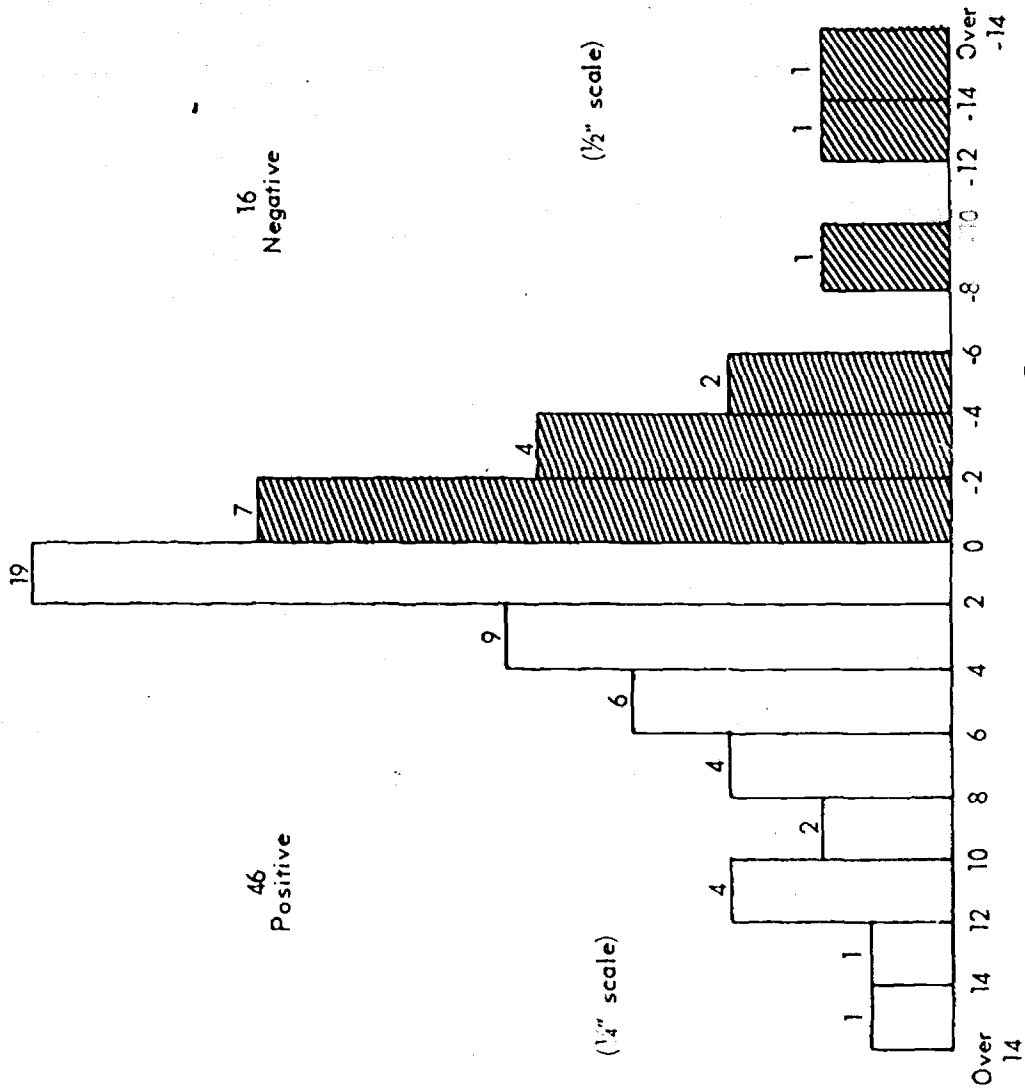


Figure 2
Current Result as Percentage of Current Expenditures

In the section that follows current operating results are examined for the various groups, A-F, and for the various budget categories.

Current Operating Results

In 1971-72 the total operating result for the 62 higher education institutions participating in the update study was a positive \$5.5 million. This was a \$10 million improvement over the negative \$4.5 result reported by these institutions for 1969-70 and \$3.5 million more positive result than the \$6.5 million improvement shown in the previous report.⁵

Table 6 provides the operating result (revenues - expenditures = operating result) for each group of institutions, 1969-70 to 1971-72.

Table 6

Operating Result by Group (Dollars in Thousands)

| Group | 1969-70 | 1970-71 | 1971-72 | Change 1969-72 | Average Change |
|-------|----------|----------|----------|-------------------|-------------------|
| A | +\$ 122 | +\$ 67 | -\$ 48 | -\$ 170 | -\$ 57 |
| B | + 2,259 | + 1,902 | + 1,181 | - 1,078 | - 359 |
| C | + 2,183 | + 3,245 | + 4,716 | + 2,533 | + 844 |
| D | - 1,160 | + 151 | + 553 | + 1,713 | + 571 |
| E | - 1,439 | + 3,292 | + 3,651 | + 5,090 | + 1,697 |
| F | - 6,550 | - 4,910 | - 4,547 | + 2,003 | + 668 |
| Total | -\$4,584 | +\$3,747 | +\$5,506 | +\$10,091 | +\$3,364 |

Even with the overall improvement of \$10 million, Groups A and B showed a negative result; Group C improved its positive base; Group D moved from a negative result in 1969-70 to a positive change of \$1.7 million; Group E showed the greatest improvement, moving from a negative \$1.4 million to a positive \$5 million, accounting for 50.4 per cent of the total improvement for the six groups. Group F continued its deficit condition but showed a positive \$2 million improvement.

Operating Results by Account

In Table 7 is shown the breakdown of operating results by account for the aggregated data for 62 higher education institutions.

⁵Update Study of the Financial Condition of Independent Higher Education in the Commonwealth of Pennsylvania, McKinsey & Company, Inc., February 1972, Chapter I, p. 2.

Table 7

Major Aggregate Operating Accounts, 1969-70 to 1971-72
(Dollars in Thousands)

| | 1969-70 | 1971-72 | Net Result | Average Annual Growth Rate |
|--------------------------------------|----------------|----------------|---------------|----------------------------------|
| <u>Educational and General</u> | | | | |
| Revenues | \$369,459 | \$421,349 | | .0679 |
| Expenditures | <u>349,894</u> | <u>388,977</u> | | .0544 |
| Result | \$ 19,565 | \$ 32,372 | +\$12,807 | |
| <u>Student Aid</u> | | | | |
| Revenues | \$ 19,918 | \$ 22,826 | | .0710 |
| Expenditures | <u>42,584</u> | <u>46,183</u> | | .0420 |
| Result | \$-22,666 | \$-23,357 | -\$ 691 | |
| <u>Major Public Service Programs</u> | | | | |
| Revenues | \$ 47,625 | \$ 53,322 | | .0599 |
| Expenditures | <u>49,023</u> | <u>54,623</u> | | .0562 |
| Result | \$- 1,398 | \$- 1,301 | +\$ 97 | |
| <u>Sponsored Research</u> | | | | |
| Revenues | \$ 54,061 | \$ 49,267 | | -.0520 |
| Expenditures | <u>53,444</u> | <u>50,017</u> | | -.0354 |
| Result | \$ 617 | \$- 750 | -\$ 1,367 | |
| <u>Separately Budgeted Research</u> | | | | |
| Revenues | \$ 102 | \$ 5 | | -.0520 |
| Expenditures | <u>439</u> | <u>294</u> | | -.1811 |
| Result | \$- 337 | \$- 289 | +\$ 48 | |
| <u>Auxiliary Enterprises</u> | | | | |
| Revenues | \$ 75,499 | \$ 90,975 | | .0980 |
| Expenditures | <u>75,585</u> | <u>93,183</u> | | .1108 |
| Result | \$- 86 | \$- 2,208 | -\$ 2,122 | |
| TOTAL ¹ | | | | |
| Revenues | \$512,501 | \$588,472 | | .0720 |
| Expenditures | <u>517,085</u> | <u>582,966</u> | | .0620 |
| Result | \$- 4,584 | \$ 5,506 | +\$10,090 | |

¹Sponsored and separately budgeted research are included in Educational and General, hence not in Total column.

As shown in previous studies, it is clear that the major improvement occurred in the educational and general account. The categories included in this account are shown in Appendix B.

Although student aid revenues have increased, 1969-72, a serious drain of funds is still caused by the student aid account. Student aid of \$46.1 million in 1971-72 represented 11.9 per cent of all educational and general expenditures. Of this expenditure \$10.5 million came from educational and general funds other than those designated for student aid. Of the \$10.5 million, \$3.7 million came from endowment funds.

The positive operating result of \$32.4 million in 1971-72 for educational and general compared to \$23.5 million in 1965-66 and \$14.5 million in 1969-70 shown in McKinsey reports, constituted real improvement and represented 8.3 per cent of revenues.

Included in the major public service account are community programs "not essential to meeting the educational objectives of the institution," including expenditures for hospitals and organizations designated as federally funded research development centers. The negative result of -\$1.4 million in 1969-70 was reduced to -\$1.3 million in 1971-72.

Sponsored research had a negative result of -\$0.75 million in 1971-72, and separately budgeted research, -\$0.3 million.

Auxiliary enterprises includes housing, food service and expenditures for other services intended to be self-supporting, and it showed an operating deficit of \$2 million, 1969-72. In 1971-72 housing required \$34.5 million; food services, \$29.7 million and other services, \$28.8 million, for a total of \$93 million.

Operating Results by Account and Group, A-F

Tables that follow will show operating results by account breakdown by group, A-F. Table 8 gives the operating result breakdown by group for the educational and general account.

Group D made the most improvement, 1969-72, \$1.2 million or 151.7 per cent. Group F had the greatest dollar improvement, \$6.4 million or 119.5 per cent, followed by Groups E and C. Group B had a negative change of -\$0.79 million or 22.6 per cent. Complete data are given in Table 8.

Student aid operating result by group is shown in Table 9.

Although the student aid results are negative for all groups, Group E improved its position by \$1.5 million or 29.7 per cent and Group D had an improvement of \$.091 million or 6.2 per cent.

Sponsored research and major public service programs represented almost \$104 million in the expenditures of the 62 CICU institutions in 1971-72 with percentage increase, 1969-72, from 20 per cent to 352 per

Table 8

Educational and General Operating Result, Excluding
Sponsored Research, Dollar and Per Cent Change, 1969-72*

| Group | 1969-70 | 1970-71 | 1971-72 | Dollar Change | Per Cent Change |
|-------|----------|----------|----------|------------------|--------------------|
| A | \$ 298 | \$ 377 | \$ 2,356 | \$ 58 | + 19.5 |
| B | 3,508 | 3,287 | 2,715 | - 793 | - 22.6 |
| C | 5,570 | 6,865 | 8,785 | 3,215 | + 57.7 |
| D | 815 | 2,144 | 2,051 | 1,236 | +151.7 |
| E | 3,359 | 6,864 | 7,369 | 4,010 | +119.4 |
| F | 5,398 | 9,838 | 11,846 | 6,448 | +119.5 |
| Total | \$18,948 | \$29,375 | \$33,122 | \$14,174 | + 74.8 |

*Dollars in thousands

Table 9

Student Aid Operating Result, Dollar and Per Cent Change, 1969-72*

| Group | 1969-70 | 1970-71 | 1971-72 | Dollar Change | Per Cent Change |
|-------|-----------|-----------|-----------|------------------|--------------------|
| A | -\$ 265 | -\$ 261 | -\$ 348 | -\$ 83 | -31.9 |
| B | - 1,652 | - 1,636 | - 1,710 | - 58 | - 3.5 |
| C | - 4,939 | - 5,568 | - 5,771 | - 832 | -16.8 |
| D | - 1,471 | - 1,626 | - 1,380 | 91 | + 6.2 |
| E | - 5,209 | - 3,820 | - 3,663 | 1,546 | +29.7 |
| F | - 9,130 | - 9,967 | - 10,485 | 1,355 | -14.8 |
| Total | -\$22,666 | -\$22,878 | -\$23,357 | -\$ 691 | - 3.0 |

*Dollars in thousands

cent among the six groups, A-F. Table 10 shows the breakdown by group.

Group F increased its operating deficit for research and major public service by \$1.9 million or 204 per cent. Group D reduced its deficit by 20 per cent. Group E had the largest positive operating increase, almost \$.5 million.

Table 10

Sponsored Research and Major Public Service Programs
Operating Result, Dollar and Per Cent Change, 1969-72*

| Group | 1969-70 | 1970-71 | 1971-72 | Dollar Change | Per Cent Change |
|-------|---------|----------|----------|------------------|--------------------|
| A | -\$ 26 | -\$ 43 | \$ 13 | \$ 44 | +169.2 |
| B | - 37 | 0 | 28 | 65 | +175.7 |
| C | 89 | 186 | 135 | 46 | + 51.7 |
| D | - 10 | - 15 | - 8 | 2 | + 20.0 |
| E | 137 | 198 | 619 | 482 | +351.8 |
| F | - 934 | - 1,791 | - 2,843 | - 1,909 | -204.4 |
| Total | -\$781 | -\$1,465 | -\$2,051 | -\$1,270 | - 62.6 |

*Dollars in thousands

Auxiliary enterprises operating change, 1969-72, was positive for Groups C and D, although Group D had only a lower negative result. (Table 11).

Table 11

Auxiliary Enterprises Operating Result, 1969-72
(Dollars in thousands)

| Group | 1969-70 | 1970-71 | 1971-72 | Dollar Change | Per Cent Change |
|-------|---------|---------|----------|------------------|--------------------|
| A | \$ 115 | -\$ 6 | -\$ 74 | -\$ 189 | - 164.3 |
| B | 440 | 251 | 148 | - 292 | - 66.4 |
| C | 1,463 | 1,762 | 1,567 | + 104 | + 7.1 |
| D | - 494 | - 352 | - 110 | + 384 | + 77.7 |
| E | 274 | 50 | - 674 | - 948 | - 346.0 |
| F | - 1,884 | - 1,990 | - 3,065 | - 1,181 | - 62.7 |
| Total | -\$ 86 | -\$ 285 | -\$2,208 | -\$2,122 | -2,467.4 |

In Table 12 the average annual per cent change for each account by group, 1969-72, is given. The negative rates indicate areas for study and improvement even when the average of the accounts shows a positive rate.

Table 12

Average Annual Per Cent Change in Operating Result With
Category Average and Group Average, 1969-72

| Group | Educational and General | Student Aid | Sponsored | | Group Average |
|---------------------|----------------------------|----------------|--------------------------------|--------------------------|------------------|
| | | | Research and Public Service | Auxiliary Enterprises | |
| A | - 9.7 | -15.8 | 84.6 | - 82.6 | - 5.8 |
| B | -11.3 | - 1.8 | 89.2 | - 33.2 | +10.7 |
| C | 28.9 | - 8.4 | 25.8 | 3.6 | +10.9 |
| D | 75.8 | 3.1 | 10.0 | 38.9 | +31.9 |
| E | 59.7 | 14.8 | 175.9 | -173.0 | +19.4 |
| F | 59.7 | - 7.4 | -102.2 | - 31.4 | -20.3 |
| Category Average | +34.0 | - 3.0 | + 47.2 | - 46.3 | |

Projections of Operating Results

In Table 13 are given projections of operating results for 1975-76, using the 1969-72 trends. They do not take into account inflation, new vocational attitudes of students, or the energy shortage.

The McKinsey report of February 1972, using both end-of-year audited data and 1971-72 budget data, projected a worsening fiscal condition for all groups. Historical data, 1969-70 to 1971-72, used in this study show, however, all groups except Group A and Group B in a positive fiscal condition in 1975-76. All groups have apparently taken measures since the initial McKinsey report to maximize efficiency in financial operations.

Table 13

1975-76 Projected Operating Results by
Group, Using 1969-72 Data Base*

| Group | Revenues | Expenditures | Change |
|---------|-----------|--------------|----------|
| A | \$ 20,200 | \$ 20,900 | -\$ 700 |
| B | 50,949 | 54,400 | - 3,451 |
| C | 190,400 | 176,800 | 13,600 |
| D | 73,800 | 67,900 | 5,900 |
| E | 120,300 | 103,100 | 17,200 |
| F | 326,691 | 326,005 | 686 |
| Total** | \$795,900 | \$749,400 | \$46,500 |

*Dollars in thousands. **Total was projected separately.

Plant Fund Results

The question of whether a plant expenditure is appropriate is sometimes answered affirmatively if the higher education institution has on hand all the funds required. There is, of course, a more business-like approach to plant funding. Even if an institution has all the funds needed for construction of a building, the institution should be sure of the positive contribution of the building to its educational operations, such as accommodation of enrollment, enrichment of curriculum and attraction of students. It should be assured also of the source of funds for the additional maintenance costs.

Being free of plant debt is a worthy fiscal condition, but if an institution can provide the debt service to construct an appropriate building that will enhance its service and income, the increase in plant debt should be considered as an educational asset rather than a fiscal liability. Debt of a higher education institution can actually be a measure of its viability rather than deviation from good financial management.

Analysis of Plant Fund Results, 1969-72

Plant fund results for three years, 1969-72, are shown in Table 14. From a negative result of -\$39.3 million in 1969-70, plant results changed to a debt position of -\$73.9 million in 1971-72. Groups B, E, D and C reduced their debt by 25.9 per cent, 36.5 per cent, 91.0 per cent and 93.2 per cent, respectively. Unusual capital expenditures by Group F, \$58.2 million, increased its debt by 1,129.3 per cent.

Table 14

Plant Fund Results, 1969-72* (Dollars in thousands)

| Group | 1969-70 | 1970-71 | 1971-72 | Change 1969-72 | Per Cent Change |
|-------|-----------|-----------|-----------|-------------------|--------------------|
| A | -\$ 1,417 | -\$ 485 | -\$ 2,518 | -\$ 1,101 | - 77.6 |
| B | - 4,295 | - 2,906 | - 3,179 | + 1,116 | + 25.9 |
| C | - 19,604 | - 8,683 | - 1,029 | + 18,575 | + 93.2 |
| D | - 3,269 | + 1,098 | - 293 | + 2,976 | + 91.0 |
| E | - 5,590 | - 12,657 | - 3,556 | + 2,034 | + 36.5 |
| F | - 5,153 | - 8,213 | - 63,357 | - 58,204 | -1,129.3 |
| Total | -\$39,328 | -\$31,840 | -\$73,932 | -\$34,604 | - 87.9 |

*Difference in total plant fund liabilities and reserves at beginning and end of year equals results.

Additions to Physical Plant

Averaging \$110.3 million, 1969-72, the 62 CICU institutions in this study had a total of \$330.9 million in capital expenditures. Some of this building may have been planned in the belief that great expansion of enrollment would continue into the 1980s, and to that extent may not be as utilitarian as originally intended. Groups A, C, D and E reduced their commitment to capital construction, 1969-72, but Group B had a relatively small increase, while Group F almost doubled its physical plant expenditures (Table 15).

The annual average debt for construction for all groups of \$110.3 million was reduced by capital gifts and grants and capitalized current expenditures, 1969-72, by an annual average amount of \$35.6 million or 32.3 per cent.

Groups A, C, D and E reduced expenditures for physical plant in 1971-72 to a percentage of those in 1969-70, 48.7, 60.8, 41.0 and 47.5 per cent respectively. Group B 1971-72 plant expenditures exceeded those of 1969-70 by 12 per cent, and Group F by 48.8 per cent.

Table 15

Additions to Physical Plant, 1969-72*

| Group | 1969-70 | 1970-71 | 1971-72 | 1969-72 | Average |
|-------|-----------|-----------|-----------|-----------|-----------|
| A | \$ 4,360 | \$ 2,268 | \$ 2,236 | \$ 8,864 | \$ 2,955 |
| B | 8,789 | 7,170 | 9,843 | 25,802 | 8,601 |
| C | 34,650 | 34,841 | 13,552 | 83,043 | 27,681 |
| D | 10,332 | 4,929 | 6,094 | 20,725 | 6,908 |
| E | 10,571 | 24,273 | 5,542 | 40,386 | 13,462 |
| F | 40,369 | 32,812 | 78,973 | 152,154 | 50,718 |
| Total | \$109,071 | \$106,293 | \$116,240 | \$330,974 | \$110,325 |

*Dollars in thousands.

Private gifts and grants for capital expenditures, 1969-72, provided \$73.5 million of the \$330.9 million total construction costs or 22.2 per cent (Table 16).

Capitalized current expenditures provided \$33.3 million toward the \$330.9 million capital construction, 1969-72, or about 10 per cent (Table 17).

Table 16

Private Gifts and Grants for Capital Expenditures, 1969-72*

| Group | 1969-70 | 1970-71 | 1971-72 | Average Dollar |
|-------|----------|----------|----------|----------------|
| A | \$ 722 | \$ 378 | \$ 237 | \$ 446 |
| B | 2,130 | 2,568 | 3,010 | 2,569 |
| C | 7,343 | 6,944 | 4,854 | 6,380 |
| D | 6,282 | 2,759 | 6,452 | 5,164 |
| E | 3,393 | 3,096 | 977 | 2,489 |
| F | 12,014 | 3,668 | 6,691 | 7,458 |
| Total | \$31,884 | \$19,413 | \$22,221 | \$24,506 |

*Dollars in thousands

Table 17

Additions from Capitalized Current Expenditures, 1969-72*

| Group | 1969-70 | 1970-71 | 1971-72 | 1969-72 | Average |
|-------|----------|----------|----------|----------|----------|
| A | \$ 171 | \$ 272 | \$ 334 | \$ 777 | \$ 259 |
| B | 548 | 372 | 546 | 1,466 | 489 |
| C | 2,106 | 2,679 | 2,157 | 6,942 | 2,314 |
| D | 408 | 647 | 406 | 1,461 | 487 |
| E | 814 | 814 | 1,001 | 2,629 | 876 |
| F | 7,091 | 5,809 | 7,134 | 20,034 | 6,678 |
| Total | \$11,138 | \$10,593 | \$11,578 | \$33,309 | \$11,103 |

*Dollars in thousands

Debt Situation

External debt of all groups increased from \$24.2 million in 1969-70 to \$74.5 million in 1971-72 or 75.4 average per cent change. Groups A, C and D reduced external debt on average basis by 28.4, 37.3 and 79.9 per cent, respectively. Groups B, E and F increased external debt by an average of 4.3, 13.6 and 783.1 per cent, respectively (Table 18).

Table 18

Increase in External Debt Each Year, 1969-70 to 1971-72*

| Group | 1969-70 | 1970-71 | 1971-72 | Average Change | Average Per Cent Change |
|-------|----------|----------|----------|----------------|-------------------------|
| A | \$ 1,389 | \$ 512 | \$ 1,085 | -\$ 394 | - 28.4 |
| B | 3,237 | 2,289 | 4,602 | + 139 | + 4.3 |
| C | 14,654 | 10,004 | 2,853 | - 5,481 | - 37.3 |
| D | 2,293 | - 1,844 | 6 | - 1,838 | - 79.7 |
| E | 4,952 | 12,877 | - 955 | + 673 | + 13.6 |
| F | - 2,273 | 4,947 | 66,976 | + 20,942 | +783.1 |
| A-F | \$24,252 | \$28,785 | \$74,567 | +\$18,282 | + 75.4 |

*Decrease in external debt is shown by minus (-); increase by plus (+).

Total debt, 1969-72, increased for Groups A-F from \$258 million to \$366 million, an increase of \$108 million, or 41.7 per cent. Only Group D decreased its total debt, 1969-72, and by 3.3 per cent. Other total debt increases ranged from 12.8 per cent for Group C to 152.6 per cent for Group F (Table 19).

Table 19

Change in Indebtedness, 1969-72*

| Group | Debt 1969-70 | Debt 1970-71 | Change | Debt 1971-72 | Change | Change 1969-72 | Per Cent Change |
|-------|--------------|--------------|---------|--------------|---------|----------------|-----------------|
| A | \$ 6,008 | \$ 6,516 | + 508 | \$ 7,727 | + 1,221 | + 1,719 | + 28.6 |
| B | 25,010 | 28,234 | + 3,224 | 31,689 | + 3,455 | + 6,679 | + 26.7 |
| C | 100,179 | 109,554 | + 9,375 | 113,009 | + 3,455 | + 12,830 | + 12.8 |
| D | 44,135 | 43,417 | - 718 | 42,698 | - 719 | - 1,437 | - 3.3 |
| E | 35,586 | 48,459 | +12,873 | 51,295 | + 2,836 | + 15,709 | + 44.1 |
| F | 47,398 | 56,880 | + 9,482 | 119,735 | +62,855 | + 72,337 | +152.6 |
| Total | \$258,316 | \$293,060 | +34,744 | \$366,153 | +73,093 | +107,837 | + 41.7 |

*Dollars in thousands.

More important than total debt in the problem of viability of debt for higher education institutions is the demand made upon operating expenditures for debt service. For the 62 CICU institutions in this study debt service represented 2.4 per cent of operating expenditures in 1969-70, 2.7 per cent in 1970-71 and 3.4 per cent in 1971-72, averaging 2.9 per cent (Table 20).

Table 20

Debt Service as a Percentage of Total
Operating Expenditures, 1969-72

| Group | 1969-70 | 1970-71 | 1971-72 | Average |
|-------|---------|---------|---------|---------|
| A | 3.0 | 3.6 | 3.4 | 3.3 |
| B | 6.1 | 5.7 | 5.8 | 5.5 |
| C | 4.4 | 4.9 | 5.6 | 4.9 |
| D | 5.5 | 4.6 | 4.3 | 4.8 |
| E | 3.3 | 5.1 | 4.9 | 4.4 |
| F | 0.2 | 0.2 | 1.4 | 0.6 |
| A-F | 2.4 | 2.7 | 3.4 | 2.9 |

The proportion of operating expenditures used for debt service in 1971-72 decreased below the 1969-72 average for Group D only. For the other five groups debt service required a greater percentage of current expenditures, ranging from 1.4 per cent for Group F to 5.8 per cent for Group B.

Another way to examine debt service is in terms of its relationship to student enrollment. In 1969-70 debt service for all groups constituted \$90 per FTEE in operating budgets; in 1970-71, \$105; and in 1971-72, \$137, indicating an increase of \$47 per FTEE, 1969-72, or 52.6 per cent.

Group D showed a decline in debt service per FTEE from \$243 to \$201 or 42.51 per cent, but it still had the highest amount. The other groups increased debt service, 1969-72, per FTEE from \$15 to \$120 (Table 21).

Table 21

Debt Service Per FTEE, 1969-72

| Group | 1969-70 | 1970-71 | 1971-72 | Dollar Change | Average Annual Per Cent Change |
|-------|----------|----------|----------|---------------|--------------------------------|
| A | \$ 66.60 | \$ 84.62 | \$ 83.57 | + 16.97 | + 25.5 |
| B | 107.26 | 111.05 | 122.35 | + 15.09 | + 14.1 |
| C | 103.20 | 125.38 | 147.09 | + 43.89 | + 42.5 |
| D | 243.94 | 205.28 | 201.43 | - 42.51 | - 17.4 |
| E | 77.02 | 118.74 | 117.52 | + 40.50 | + 52.6 |
| F | 16.77 | 17.58 | 137.41 | +120.64 | +719.4 |
| A-F | \$ 90.00 | \$105.40 | \$137.36 | + 47.36 | + 52.6 |

With the general enrollment slow-down facing institutions of higher education, proposals for expansion of facilities should be researched carefully. The student debt service per FTEE often may be reduced rather than increased by better utilization of available space.

Projection of Plant Expenditures and Debt Service

If the CICU higher education institutions operate in the 1972-76 period about as they have in the 1969-72 period, a projection of \$113.3 million plant expenditures seems justified. Some plant expenditures will be required for improvement and replacement irrespective of any expansion.

Gifts and grants for capital development have been estimated to be the same in 1975-76 as the 1969-72 average. If they keep pace with inflation, they might increase at about six per cent per year, changing total funds available in 1975-76 from \$24.5 million to \$30.3 million (Table 22).

Table 22

Projected Plant Expenditures, Average Available Capital Funds, Debt Service Requirement and Per Cent of Current Revenues Represented, by Group, 1975-76*

| Group | Plant Expenditures | Gift and Grant Capital Available ² | Amount of Debt Service Needed | Debt Service Per Cent Operating Expenditure |
|-------|---------------------|---|-------------------------------|---|
| A | \$ 840 | \$ 446 | \$ 436 | 2.1 |
| B | 13,072 | 2,569 | 2,643 | 5.7 |
| C | 5,795 | 6,380 | 6,024 | 3.4 |
| D | 6,007 | 5,164 | 2,398 | 3.5 |
| E | 5,315 | 2,489 | 3,863 | 3.7 |
| F | 82,347 ¹ | 7,458 | 5,649 | 1.7 |
| Total | \$113,376 | \$24,506 | \$21,013 | 3.5 |

*Dollars in thousands.

¹Inclusion of the unusual year of 1971-72 may have put projection on the high side.

²The average of gifts and grants for capital use, 1969-70 to 1971-72, was used here as more realistic than a projection.

Debt service needed for CICU institutions in 1975-76 is projected as \$21 million, which is \$3.5 million less than the anticipated gifts and grants. Even though the total debt is projected as \$383.7 million, since these institutions have the projected capacity to meet the debt service, they will be in a viable financial status. Should gifts and grants increase by the six per cent average estimated inflation and economic growth rate, then the amount available would exceed need by \$9.3 million. This sum could be used for more rapid amortization of the debt.

These favorable projections for the groups ignore the fact, however, that certain CICU institutions may have trouble meeting their

capital debt service. The number will vary with the number having trouble obtaining and retaining adequate enrollment as well as the quality of their financial management.

Analysis of Per Student Expenditures by Account and Group With Growth Rates, 1969-72

Since the key variable in the financial equation of independent colleges is the student, it is appropriate to look at FTEE expenditures.

Table 23 presents total per FTEE expenditures by group. It indicates that all groups have increased their per FTEE expenditures, 1969-72, representing resources per student. While the average annual rate of increase for total expenditures was only 3.9 per cent, the group increases ranged from 1.6 per cent to 9.2 per cent, even though total expenditures ranged from 5 per cent to 10.5 per cent, as shown in Figure 1.

Table 23

Total Expenditures Per FTEE, 1969-72

| Group | 1969-70 | 1970-71 | 1971-72 | 1969-72 Dollar Change | Average Annual Growth Rate |
|-------|---------|---------|---------|-----------------------------|----------------------------------|
| A | \$2,188 | \$2,352 | \$2,473 | +\$285 | +6.3 |
| B | 1,772 | 1,945 | 2,110 | + 388 | +9.2 |
| C | 2,339 | 2,548 | 2,636 | + 297 | +6.2 |
| D | 4,407 | 4,477 | 4,667 | + 260 | +2.9 |
| E | 2,316 | 2,332 | 2,388 | + 72 | +1.6 |
| F | 8,604 | 8,910 | 9,534 | + 930 | +5.3 |
| Total | \$3,764 | \$3,879 | \$4,057 | +\$293 | +3.9 |

Educational and general account expenditures per FTEE appear in Table 24. The dollar change, 1969-72, ranged from \$38 for Group E to \$342 for Group F. The change per FTEE for total expenditures in this account was \$160.

The average annual rate of change varied from 1.1 per cent for Group E to 10.8 per cent for Group B, with 3.1 per cent for the total account 1969-72. Compared with growth rates reported by the McKinsey update, all groups increased use of resources per student except Group C and Group D, which had decreases of 2.8 per cent and 1.7 per cent, respectively.

Instruction, Departmental Research, Faculty Salaries, Other, Extension and Public Service (Table 25), total expenditures for all groups per FTEE decreased by \$16, 1969-72. Group F decreased its per

FTEE expenditures by \$270. The smallest dollar increase, \$11 per FTEE, was achieved by Group E; the largest, \$115, by Group A. Growth rates of per FTEE expenditures varied from -5.3 per cent for Group F to +8.6 per cent for Group B.

Table 24

Educational and General Expenditures Per FTEE
and Average Annual Per Cent of Change, 1969-72

| Group | 1969-70 | 1970-71 | 1971-72 | 1969-1972 Dollar Change | Average Annual Growth Rate | McKinsey Update Report Rates | Difference in Rate |
|-------|---------|---------|---------|-------------------------|----------------------------|------------------------------|--------------------|
| A | 1,670 | 1,783 | 1,878 | +208 | + 6.1 | + 4.6 | +2.5 |
| B | 1,139 | 1,273 | 1,398 | +259 | +10.8 | +10.1 | +0.7 |
| C | 1,578 | 1,740 | 1,807 | +229 | + 7.1 | + 9.9 | -2.8 |
| D | 3,062 | 3,159 | 3,295 | +233 | + 2.0 | + 3.7 | -1.7 |
| E | 1,692 | 1,707 | 1,730 | + 38 | + 1.1 | - 2.4 | +3.5 |
| F | 5,666 | 5,662 | 6,008 | +342 | + 3.0 | + 1.1 | +1.9 |
| Total | \$2,547 | \$2,598 | \$2,707 | +160 | + 3.1 | | |

Table 25

Instruction Including Departmental Research, Faculty Salaries,
Other, Extension and Public Service Expenditures
Per FTEE and Average Annual Change, 1969-72

| Group | 1969-70 | 1970-71 | 1971-72 | 1969-72 Dollar Change | Average Annual Growth Rate |
|-------|---------|---------|---------|-----------------------|----------------------------|
| A | \$ 850 | \$ 888 | \$ 965 | +\$115 | +6.6 |
| B | 555 | 593 | 654 | + 99 | +8.6 |
| C | 779 | 848 | 868 | + 89 | +5.7 |
| D | 1,352 | 1,414 | 1,461 | + 109 | +4.0 |
| E | 829 | 830 | 840 | + 11 | +0.7 |
| F | 2,362 | 1,987 | 2,092 | - 270 | -5.3 |
| Total | \$1,150 | \$1,095 | \$1,134 | -\$ 16 | -0.6 |

Before looking at faculty salaries, it is desirable to examine changes in student-faculty ratio, 1969-70 to 1971-72. Table 26 presents student-faculty ratios (weighted FTEE-graduate with double weight) for the six groups with amount of change and per cent of change.

Table 26

Changes in Student-Faculty Ratio by
Amount and Per Cent, 1969-72

| Group | 1969-70 | 1970-71 | 1971-72 | Ratio Difference 1969-72 | Per Cent Change 1969-72 |
|-------|---------|---------|---------|--------------------------------|-------------------------------|
| A | 13.9 | 13.5 | 13.4 | -0.5 | - 3.6 |
| B | 17.6 | 16.7 | 16.5 | -1.1 | - 6.3 |
| C | 15.2 | 14.7 | 15.1 | -0.1 | - 0.7 |
| D | 11.6 | 11.3 | 11.9 | +0.3 | + 2.6 |
| E | 16.2 | 17.7 | 19.5 | +3.3 | +20.4 |
| F | 8.7 | 8.4 | 8.5 | -0.2 | - 2.4 |
| Total | 12.8 | 12.7 | 13.2 | +0.4 | + 3.1 |

Groups A, B, C and F decreased the number of students per faculty member, 1969-72, an action that contributed to higher per FTEE costs. Group D increased the number of students per faculty member by 0.3 and Group E, by 3.3 students, a 20.4 per cent change for Group E, and a highly significant change according to McKinsey report proposals for reducing expenditures. The student-faculty ratios for Group F are much lower than for other groups because of the high proportion of graduate students in its institutions. Overall, student-faculty ratio increased by 0.4.

Table 27 presents faculty salary data per FTEE and average annual growth rate, 1969-72. All groups increased faculty salary expenditures except Group E. Group E, as previously noted, increased the number of students per faculty member, and this resulted in 0.1 per cent reduction in faculty salary expenditures.

Table 27

Faculty Salary Expenditures Per FTEE and Average
Annual Growth Rate, 1969-72*

| Group | 1969-70 | 1970-71 | 1971-72 | Dollar Change | Average Annual Growth Rate |
|-------|---------|---------|---------|------------------|-------------------------------|
| A | \$ 677 | \$ 720 | \$ 769 | +\$ 92 | +6.6 |
| B | 465 | 505 | 559 | + 94 | +9.7 |
| C | 650 | 715 | 732 | + 82 | +6.2 |
| D | 1,069 | 1,111 | 1,158 | + 99 | +4.1 |
| E | 638 | 645 | 637 | - 1 | -0.1 |
| F | 1,342 | 1,425 | 1,477 | + 135 | +4.9 |
| A-F | \$ 808 | \$ 852 | \$ 875 | +\$ 67 | +4.1 |

*Dollars in thousands.

The growth rate in faculty salary expenditures per FTEE averaged a 4.1 per cent increase for all groups. Group B showed the highest increase, 9.7 per cent, which is in line with its growth rates for expenditures of 10.4 compared with that of revenues, 8.2 per cent. In contrast Group E's faculty expenditures were at a rate of 6.0 compared with 9.5 per cent for revenue (Figure 1).

Decreasing the number of students per faculty member and at the same time increasing faculty salary expenditures cause an interacting and negative effect on operating results for higher education institutions.

Instruction and departmental research averaged \$156.6 million, 1969-72, compared to \$95.4 million in 1965-66. Instructional salaries alone averaged \$118.7 million, with an annual growth rate of 6.42 per cent. They are projected as \$171.6 million in 1975-76. Projections for each group appear in Appendix B.

Table 28 presents the average annual growth rate and the dollar increase for each group.

Table 28

Average Annual Growth Rate and Dollar Increase in Faculty Salaries, 1969-72*

| Group | Average Annual Growth Rate | Dollar Increase |
|-------|----------------------------|-----------------|
| A | 10.6 | \$ 802 |
| B | 10.9 | 1,795 |
| C | 9.4 | 5,616 |
| D | 5.9 | 1,529 |
| E | 4.3 | 1,719 |
| F | 4.1 | 3,252 |
| A-F | 6.4 | \$14,713 |

*Dollars in thousands.

While Group F had the lowest growth rate in faculty salaries, 1969-72, the salaries of these universities were so much better than those of other groups that not as much growth was needed to maintain a reasonable standard. Group E with a 4.3 per cent growth rate was in a similar status. Group B with a growth rate of 10.9 per cent and Group A with 10.6 per cent represent institutions that had a large measure of "catching up" to do, hence the high growth rates.

Faculty salary growth rates should be examined in terms of the growth rate of United States per capita disposable income.⁶ The average

⁶Study of the Financial Condition of Independent Higher Education in the Commonwealth of Pennsylvania, McKinsey & Company, Inc., February 1971, pp. 2-10.

annual growth rate for United States disposable income for the past decade has been 5 per cent per year. With continuing inflation pressures, faculty salary growth rates may be significantly higher.

As Table 28 shows, faculty salary increases, 1969-72, accounted for an additional \$14.7 million in the CICU budgets.

Library expenditures per weighted FTEE⁷ increased in all groups from \$95 to \$101, 1969-72, or 6.1 per cent, somewhat below the historical rate of 10.3 per cent, but the same average rate indicated by the McKinsey Update Report. In the aggregate these library expenditures averaged \$15.8 million compared with \$8.8 million in 1965-66, an increase of \$7 million or 79.5 per cent. In the 1969-72 period total library expenditures increased at an average annual rate of 8.8 per cent; consequently, the projection for 1975-76 is \$26.3 million.

Table 29 shows library expenditures per student for each group.

Table 29
Library Expenditures Per WFTEE and Average
Annual Growth Rate, 1969-72

| Group | 1969-70 | 1970-71 | 1971-72 | Dollar Change | Average Annual Growth Rate | McKinsey Update Growth Rate |
|-------|---------|---------|---------|------------------|----------------------------------|-----------------------------------|
| A | \$ 75 | \$ 73 | \$ 81 | +\$ 6 | + 4.2 | -0.5 |
| B | 74 | 80 | 83 | + 9 | + 6.0 | +5.4 |
| C | 82 | 90 | 88 | + 6 | + 3.8 | +9.6 |
| D | 183 | 195 | 209 | + 12 | + 6.9 | +8.1 |
| E | 66 | 64 | 73 | + 7 | + 5.6 | -5.2 |
| F | 120 | 132 | 147 | + 27 | +10.7 | +7.1 |
| A-F | \$ 95 | \$101 | \$107 | +\$12 | + 6.1 | +6.1 |

Group D had the highest library expenditure per student, \$183 to \$209, 1969-72. Group F had the greatest per student increase, \$120 to \$147, or an average annual increase of 11.3 per cent. Group E had the lowest per student expenditure, \$66 to \$73, or an average annual increase of 5.3 per cent.

⁷In the weighted FTEE each graduate student is given a weight of 2.

Plant Maintenance and Operation expenditures per FTEE increased from \$268 to \$299, 1969-72, an average annual growth rate of 5.7 per cent. In the aggregate these expenditures increased from \$36.7 million to \$42.9 million, 1969-72, an average annual growth rate of 9.1 per cent. They are projected to be \$63.3 million in 1975-76.

Table 30 shows these expenditures per student by group.

Table 30
Plant Maintenance and Operation Expenditures Per FTEE
and Annual Growth Rate, 1969-72

| Group | 1969-70 | 1970-71 | 1971-72 | Dollar Change | Average Annual Growth Rate |
|-------|---------|---------|---------|---------------|----------------------------|
| A | \$194 | \$217 | \$223 | +\$29 | + 7.3 |
| B | 130 | 152 | 168 | + 38 | +13.7 |
| C | 201 | 224 | 248 | + 47 | +11.1 |
| D | 383 | 406 | 390 | + 7 | + 1.1 |
| E | 259 | 248 | 250 | - 9 | - 1.7 |
| F | 423 | 460 | 493 | + 70 | + 8.0 |
| A-F | \$268 | \$287 | \$299 | +\$31 | + 5.7 |

Although per student increases in plant maintenance and operation expenditures may represent better service to students, they require constant attention for achievement of maximum cost benefit to the institution.

Group E, with a plant construction of \$40.3 million, decreased its expenditures at an average rate of 1.7 per cent, 1969-72. Group B increased its plant maintenance and operation expenditures per student from \$130 to \$168, or an average annual rate of 13.7 per cent, even though its plant construction was only \$25.8 million.

Group D had the lowest rate of increase, 1.1 per cent, even though it had \$21.3 million in plant construction. Group C had the second highest annual rate of increase in plant maintenance and operation expenditures per student, 11.1 per cent, with \$83 million in plant construction, but with construction declining annually at a rate of 6.3 per cent.

General administration, general institutional and student service expenditures include administrative expenses, auditing, bulletins, catalogues, convocations, memberships, financial campaigns, staff benefits not included in other categories, principal and interest charged to operating expenditures, student personnel, registrar's office, admissions, placement, student counseling and student health services. For all groups these expenditures increased from \$410 to \$460 per student, 1969-72, or at

an annual growth rate of 6.0 per cent, and in aggregate averaged \$19.8 million. The trend for the period projects these expenditures as \$30.4 million in 1975-76.

Table 31 presents these expenditures for each group.

Table 31

General Administration and Institutional and Student
Service Expenditures Per FTEE and Average Growth Rate, 1969-72

| Group | 1969-70 | 1970-71 | 1971-72 | Dollar Change 1969-72 | Average Annual Growth Rate |
|-------|---------|---------|---------|--------------------------|-------------------------------|
| A | \$450 | \$510 | \$510 | +\$60 | + 6.6 |
| B | 354 | 383 | 429 | + 75 | +10.1 |
| C | 412 | 451 | 457 | + 45 | + 5.4 |
| D | 803 | 795 | 857 | + 54 | + 3.4 |
| E | 368 | 382 | 390 | + 22 | + 3.0 |
| F | 321 | 354 | 385 | + 64 | + 9.6 |
| A-F | \$410 | \$439 | \$460 | +\$50 | + 6.0 |

Group E had the smallest increase per student for these expenditures, 1969-72, an average annual rate of 3.0 per cent; group B had the largest, 10.1 per cent; Group D had the highest level of average per student expenditures for the period, \$818, compared to an average for all groups of \$436.

Variations from the average per student expenditure by a group should be examined for cost benefit implications. Similarly, each institution within a group could profitably assess its expenditures with reference to the group average.

Other educational and general expenditures, including sponsored and separately budgeted research, increased per student from \$613 to \$695 for all groups, 1969-72, an annual growth rate of 6.5 per cent. In terms of total expenditures the other educational and general account increased from \$29.3 million to \$49.5 million, 1969-72, a 30.9 per cent average annual rate, and is projected to be \$57.5 million in 1975-76.

The sponsored and separately budgeted research accounts expenditures averaged \$50.9 million, 1969-72, compared with \$35.9 million in 1965-66. Sponsored research declined from \$53.4 million to \$50 million, 1969-72, or at an average annual rate of 3.54 per cent, and if this trend continues, will be \$43.3 million in 1975-76. Separately budgeted research by institutions declined from \$.44 million to \$.29 million, 1969-72, and is projected as \$.16 million in 1975-76.

Outside funds have become less available for research, and the cost of the research component for instruction should properly be charged to instruction.

Table 32 presents these data for each group.

Table 32

Other, Including Sponsored and Separately Budgeted
Research Per FTEE and Average Annual Growth Rate, 1969-72*

| Group | 1969-70 | 1970-71 | 1971-72 | Dollar Change 1969-72 | Average Annual Change Rate |
|-------|---------|---------|---------|--------------------------|-------------------------------|
| A | \$ 98 | 99 | \$ 96 | - \$ 2 | - 1.0 |
| B | 25 | 63 | 61 | + 36 | +74.4 |
| C | 102 | 115 | 143 | + 41 | +18.5 |
| D | 341 | 349 | 378 | + 37 | + 5.3 |
| E | 160 | 171 | 164 | + 4 | + 1.4 |
| F | 2,398 | 2,681 | 2,839 | + 441 | + 8.9 |
| A-F | 613 | 664 | 695 | + 82 | + 6.5 |
| A-E | \$ 145 | \$ 160 | \$ 169 | + 24 | +16.5 |

*Research, other sponsored Programs, Department Organized
Activities, Education and General.

Group F, the research-oriented universities, had more research expenditures per student than all the other groups combined, \$7.9 million, 1969-72, with an annual growth rate of 8.9 per cent. Group B had the greatest average growth, 74.4 per cent; Group E, the least, 1.4 per cent. Only Group A declined, an average of 1.0 per cent.

Computer Expenditures

Computer expenditures in CICU institutions increased from \$5.3 million in 1969-70 to \$6.7 million in 1971-72, an annual growth rate of 12 per cent and an average per FTEE expenditure of \$46.48 in 1971-72. This comparatively new area of expenditure has increased rapidly and significantly, 1969-72, and should be carefully assessed for cost-benefit implications.

Table 33 presents the data and analysis of total computer expenditures.

The universities represented in Groups E and F accounted for more than 70 per cent of the total CICU expenditures for computers in 1971-72. Only Group F reduced computer expenditures, which was in the amount of \$0.92 million, 1969-72.

Table 33

Computer Expenditures, 1969-72, Results by
Group and FTEE Cost, 1971-72*

| Group | 1969-70 | 1970-71 | 1971-72 | Dollar Change | Per Cent Change | Average Annual Per Cent Change | Cost Per FTEE 1971-72 |
|-------|---------|---------|---------|------------------|--------------------|---|-----------------------------|
| A | \$ 35 | \$ 59 | \$ 63 | +\$ 28 | +80.0 | +35.6 | \$ 11.08 |
| B | 134 | 151 | 195 | + 61 | +45.5 | +20.9 | 11.41 |
| C | 841 | 1,072 | 1,298 | + 457 | +54.3 | +24.2 | 27.82 |
| D | 199 | 217 | 337 | + 138 | +69.3 | +32.4 | 27.94 |
| E | 1,124 | 1,589 | 1,888 | + 764 | +68.0 | +29.7 | 56.31 |
| F | 2,991 | 2,927 | 2,899 | - 92 | - 3.1** | - 1.5 | 101.02 |
| Total | \$5,324 | \$6,015 | \$6,680 | +\$1,356 | +25.5 | +12.0 | \$ 46.48 |

*Dollars in thousands.

**A large university in this group did not report data.

Of the total expenditures for computers in 1971-72 by CICU institutions, 55 per cent was for academic purposes. Only Group F reduced computer expenditures for academic purposes, 2.5 per cent. The annual growth rate for all groups averaged 9.9 per cent (Table 34).

Table 34

Computer Expenditures for Academic
Purposes, 1969-72, and Results by Group*

| Group | 1969-70 | 1970-71 | 1971-72 | Dollar Change | Per Cent Change | Average Annual Per Cent Change |
|-------|---------|---------|---------|------------------|--------------------|--------------------------------------|
| A | \$ 17 | 20 | 18 | +\$ 1 | + 5.8 | + 3.8 |
| B | 33 | 41 | 68 | + 35 | +106.1 | +45.0 |
| C | 299 | 377 | 484 | + 185 | + 61.8 | +37.3 |
| D | 149 | 156 | 253 | + 104 | + 58.8 | +33.4 |
| E | 534 | 702 | 882 | + 348 | + 65.2 | +29.5 |
| F | 2,017 | 2,055 | 1,967 | - 50 | - 2.5 | - 1.5 |
| Total | \$3,049 | \$3,351 | \$3,672 | +\$623 | + 20.4 | + 9.9 |

*Dollars in thousands.

Computer expenditures for academic purposes for all groups increased by \$623,000, 1969-72. Group E had a large increase, \$348,000;

Group C the next largest increase, \$185,000 and Group D, an increase of \$104,000. Groups A and B had small increases in comparison with the other groups.

Computer expenditures for administration and other purposes increased from \$2.27 million in 1969-70 to \$3.0 million in 1971-72, almost a third. In 1971-72 they represented 45 per cent of total computer expenditures. During the 1969-72 period Group A increased the proportion of its computer expenditures for administration from 50 per cent to 71 per cent. While Group C computer expenditures increased by \$457,000, the proportion for administration decreased by 1.7 per cent (Table 35).

Table 35

Computer Expenditures for Administrative
and Other Purposes, 1969-72, and Results by Group*

| Group | 1969-70 | 1970-71 | 1971-72 | Dollar Change | Per Cent Change | Average Annual Per Cent Change |
|-------|---------|---------|---------|------------------|--------------------|-----------------------------------|
| A | \$ 18 | \$ 39 | \$ 45 | +\$ 27 | +150.0 | +69.9 |
| B | 101 | 110 | 127 | + 26 | + 25.7 | +13.8 |
| C | 542 | 695 | 814 | + 272 | + 50.2 | +21.0 |
| D | 50 | 61 | 84 | + 34 | + 68.0 | +29.8 |
| E | 590 | 887 | 1,006 | + 406 | + 68.8 | +31.8 |
| F | 974 | 872 | 932 | - 42 | - 4.3 | - 2.3 |
| Total | \$2,275 | \$2,664 | \$3,008 | +\$723 | + 31.8 | +15.4 |

*Dollars in thousands.

Of total computer expenditures, 1969-72, those for administration purposes increased by 32 per cent while those for academic programs increased by 20 per cent.

Tuition and Fee Revenue

Crucial to all analyses of expenditures of CICU institutions is the matter of tuition and fees. The McKinsey report maintained that tuition and fee increases are not self-defeating so long as they do not exceed the growth of U.S. per capita disposable income, for they will not then require a greater proportion of family income.⁸

Using U.S. census population figures and personal disposable income,⁹ one finds that disposable per capita income increased annually,

⁸ Op. cit., McKinsey, Chapter 2, p. 10.

⁹ Statistical Abstract of the United States 1972, p. 317.

1960-70, by 7.4 per cent. One CICU institution, for example, increased its tuition and fees from \$1,985 in 1960-61 to \$3,815 in 1970-71, a total of \$1,830 or an average annual rate of 7.1 per cent. While many independent colleges and universities had a decrease in student enrollment in 1973-74, this institution had an increase of 228 students.

Changes in Tuition and Fee Revenue

For all CICU groups total tuition and fee revenue increased from \$207.2 million in 1969-70 to \$254.1 million in 1971-72, an increase of \$46.8 million, or 22.5 per cent, but by an annual growth rate of 10.7 per cent. In the same period total operating revenues increased by \$75.9 million, or 14.8 per cent, but by an annual growth rate of 7.2 per cent. Tuition and fees represented 40.4 per cent of total operating revenues in 1969-70, 42.1 per cent in 1970-71 and 43.1 per cent in 1971-72, and are projected as 47.8 per cent in 1975-76. During the 1969-72 period the 2.7 per cent increase in the proportion of total revenue supplied by tuition and fees did not represent a significant change for all groups (Table 36).

Table 36

Tuition and Fee Revenue, 1969-72*

| Group | 1969-70 | 1970-71 | 1971-72 | Dollar Change | Per Cent Change | Average Annual Growth Rate |
|-------|-----------|-----------|-----------|---------------|-----------------|----------------------------|
| A | \$ 6,941 | \$ 7,405 | \$ 8,602 | +\$ 1,661 | +23.9 | +11.4 |
| B | 17,840 | 20,047 | 21,485 | + 3,645 | +20.5 | + 9.7 |
| C | 62,576 | 71,168 | 78,427 | + 15,851 | +25.3 | +11.9 |
| D | 23,612 | 26,080 | 28,337 | + 4,725 | +20.0 | + 9.5 |
| E | 43,136 | 48,590 | 53,262 | + 10,126 | +23.5 | +11.0 |
| F | 53,128 | 57,545 | 63,972 | + 10,844 | +20.4 | + 9.7 |
| Total | \$207,233 | \$230,835 | \$254,085 | +\$46,852 | +22.5 | +10.7 |

*Dollars in thousands.

The average annual rate of increase in tuition and fees of 10.7 per cent was less than that shown by a nationwide study of 554 higher education institutions, 1967-71, a rate of 11-12 per cent,¹⁰ and in comparison appears viable. The same study found that a 40 per cent increase in total tuition and fee income, 1967-68 to 1970-71, whereas CICU institutions in this study had an increase of 22.5 per cent, a 17.5 per cent advantage for CICU students.

¹⁰Jellema, William. Financial Status, Present and Projected of Private Institutions of Higher Learning, Association of American Colleges, 1971, p. 7.

Group C institutions (29) had the largest increase in tuition and fees, 1969-72, but had an increasing total operating surplus. It also had six institutions with a deficit, only two of which appear to be on the road to an operating surplus.

Group A (7) had the second largest increase in tuition and fees, 1969-72, and a declining operating condition with a deficit in 1971-72. It had three institutions in a deficit condition with one of these on the way to an operating surplus.

Group E (5) had the third largest increase in tuition and fees and changed its operating result from a deficit in 1969-70 to surpluses in the next two years. Only one of its institutions was in a deficit condition, and its operating trend projects a \$4.5 million surplus by 1975-76.

Group B (14) increased tuition and fees by 20.5 per cent and had an operating surplus which decreased each year. It had two institutions with an operating deficit, one of which is projected to have a surplus of \$200,000 by 1975-76.

Group F (4) increased tuition and fees by 20.4 per cent and had decreasing annual operating deficits. It had two institutions with operating deficits, which are likely to be reduced but not eliminated by 1975-76. One of these two is projected as free of deficit in 1976-77.

Tuition and Fee Revenue Per FTEE

FTEE data include all students. Commuter and part-time students are counted in full-time units but may not require institutional expenditures for many services, such as housing and food. Table 37 presents FTEE data on tuition and fees.

Table 37

Tuition and Fee Revenue Per FTEE,
1969-70 to 1971-72

| Group | 1969-70 | 1970-71 | Per | | 1971-72 | Per | | Average Annual Per Cent Change |
|-------|---------|---------|---------------|-------------|---------|---------------|-------------|--------------------------------|
| | | | Dollar Change | Cent Change | | Dollar Change | Cent Change | |
| A | \$1,317 | \$1,356 | +\$ 39 | 3.0 | \$1,513 | +\$157 | 11.6 | 7.3 |
| B | 1,069 | 1,159 | + 90 | 8.4 | 1,258 | + 99 | 8.5 | 8.5 |
| C | 1,427 | 1,593 | + 166 | 11.6 | 1,681 | + 88 | 5.5 | 8.6 |
| D | 2,029 | 2,166 | + 137 | 6.8 | 2,350 | + 184 | 8.5 | 7.7 |
| E | 1,401 | 1,515 | + 114 | 8.1 | 1,589 | + 74 | 4.8 | 6.5 |
| F | 1,823 | 2,015 | + 192 | 10.5 | 2,229 | + 214 | 10.6 | 10.6 |
| A-F | \$1,508 | \$1,648 | +\$140 | 9.3 | \$1,768 | +\$120 | 7.3 | 8.3 |

Average tuition and fees for CICU institutions changed from \$1,508 in 1969-70 to \$1,648 in 1970-71, an increase of \$140, or 9.3 per cent; and further increased to \$1,768 in 1971-72, an increase of \$120, or 7.3 per cent. The average annual growth rate in tuition and fees per FTEE was 8.3 per cent, which was even less than that of the representative mean college nationwide, 1960-68, a rate of 9.68 per cent.¹¹ Only Group F, four years later in a higher cost period, exceeded the national FTEE average growth rate for tuition and fees, and that by less than 1.0 per cent. This growth rate of 10.6 per cent occurred, as might be expected, in a group where half of the institutions had suffered continuing operational deficits.

In Group E only one of five institutions had an operating deficit, 1969-72, and this group had the lowest FTEE growth rate in tuition and fees, 6.5 per cent.

Although higher education finance studies have tended to show that "the trends in fees and in enrollments have paralleled each other,"¹² other important factors are level of economic activity and particularly student aid. The impact of these conditions seems to emerge from a comparison of the growth rates of tuition and fees found by the McKinsey study, 1965-70, and the present study, 1969-72. Figure shows the comparative growth rates. The difference in rates by group are: A, 0.4 per cent; B, 1.6 per cent; C, 10.9 per cent; D, 1.1 per cent; E, 1.0 per cent and F, 4.5 per cent.

Comparison of FTEE Student Aid and FTEE Tuition and Fee Income

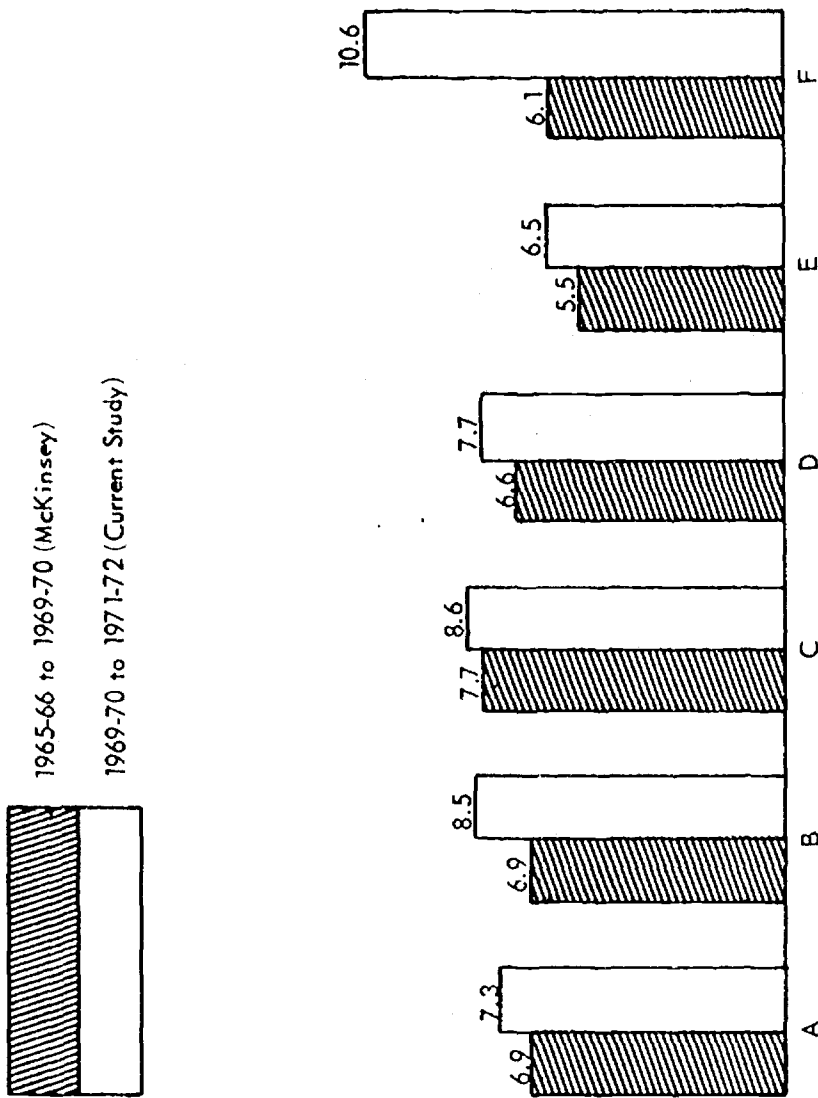
This study has already noted the expenditure by CICU institutions of student aid funds in excess of student aid revenues. Comparison of the FTEE tuition and fee income with FTEE student aid is presented in Table 38.

From this table one can estimate the average net increase per FTEE, 1969-72, in tuition and fees, having deducted the FTEE student aid. The average increase in net tuition and fee income per student, 1969-72, was: Group A, \$87; B, \$75.50; C, \$117.50; D, \$154; E, \$109 and F, \$73.50, which was less than \$100 per student in three groups, A, B and F. For Groups A and B the increase in net income was insufficient to reverse the negative operating condition. For Group E the net FTEE increase of \$109 in tuition and fees handily assisted in reversing the negative operating condition.

¹¹Jenny, Hans H. and G. Richard Wynn. "Expenditures Expectations for Private Colleges," The Economics and Financing of Higher Education in the United States, U.S. Government Printing Office, Washington, D.C., 1969, p. 441.

¹²Russell, John Dale. The Finance of Higher Education, University of Chicago Press, Chicago, Illinois, 1967, p. 202.

ANNUAL GROWTH RATE OF TUITION AND FEES PER FTEE, 1969-70 TO 1971-72, BY GROUP



(Scale - 1 per cent = .2 inch)

Figure 3

Table 38

Student Aid Per FTEE as a Proportion of
FTEE Tuition and Fee Income, 1969-72

| Group | FTEE Income 1969-70 | FTEE Aid 1969-70 | Per Cent | FTEE Income 1970-71 | FTEE Aid 1970-71 | Per Cent | FTEE Income 1971-72 | FTEE Aid 1971-72 | Per Cent |
|-------|---------------------------|------------------------|-------------|---------------------------|------------------------|-------------|---------------------------|------------------------|-------------|
| A | \$1,317 | \$192 | 14.6 | \$1,356 | \$202 | 14.9 | \$1,513 | \$214 | 14.1 |
| B | 1,069 | 173 | 16.2 | 1,159 | 193 | 16.7 | 1,258 | 211 | 16.8 |
| C | 1,427 | 200 | 14.0 | 1,593 | 215 | 13.5 | 1,681 | 219 | 13.0 |
| D | 2,029 | 359 | 17.7 | 2,166 | 353 | 16.3 | 2,350 | 372 | 15.8 |
| E | 1,401 | 233 | 16.6 | 1,515 | 217 | 14.3 | 1,589 | 203 | 12.8 |
| F | 1,823 | 637 | 34.9 | 2,015 | 672 | 33.2 | 2,015 | 672 | 33.3 |
| Total | \$1,508 | \$310 | 20.6 | \$1,648 | \$317 | 19.2 | \$1,768 | \$321 | 18.2 |

Group C, with a net FTEE increase of \$117.50, doubled the positive operating result. With the large FTEE net increase of \$154, Group D changed from a \$1.16 million deficit to \$553,000 positive operating result.

The per student increase in tuition and fees, 1969-72, has been largely due to meeting operational costs other than student aid. Table 39 supports this conclusion.

Only Group E reduced FTEE student aid, and that by \$33 for the 1969-72 period. For the other groups increases ranged from \$13 to \$38. The average increase in FTEE student aid for Groups A, B, C, D and F was \$25.50, or 11.4 per cent of the average FTEE tuition and fee increases.

Table 39

Amount of Tuition and Fee FTEE Increase
Due to Student Aid, 1969-72

| Group | 1969-72 FTEE Tuition and Fee Increase | 1969-72 FTEE Student Aid Increase | Net Result | Per Cent FTEE Tuition and Fee Increase Due to Student Aid Increase |
|---------|---|---|---------------|--|
| A | \$196 | \$22 | +\$174 | +11.2 |
| B | 189 | 38 | + 151 | +20.1 |
| C | 254 | 19 | + 235 | + 7.5 |
| D | 321 | 13 | + 208 | + 4.1 |
| E | 188 | - 33 | + 188 | -17.5 |
| F | 192 | 35 | + 157 | +18.2 |
| Average | \$223 | +\$25.5 | +\$186 | +11.4 |

As a total of all groups, FTEE tuition and fees increased annually, 1969-72, by \$112 and enrollment increased by 2.26 per cent. Average annual rate of change in enrollment by group was as follows: Group A, 2.85 per cent; Group B, 1.21 per cent; Group C, 3.14 per cent; Group D, 1.8 per cent; Group E, 4.3 per cent; Group F, -1.6 per cent. Only Group F developed a negative annual FTEE growth rate in enrollment, although its annual tuition increase averaged only \$96.

For 1973, Group F reversed the negative enrollment trend by an increase of 369 students. Group E had an increase in enrollment of 42 and Group D, 223. Group C had 9 institutions with increased enrollment and 20 with enrollment losses to a total of 1,209 students. Groups A and B had enrollment losses of 114 and 116, respectively, even though they increased student aid by \$22 and \$38, respectively.¹³

Student Aid Expenditures as a Percentage of Tuition and Fee Revenue

For all groups student aid showed an average annual increase of 4.2 per cent; tuition and fees, 10.7 per cent and student aid expenditures averaged 19.3 per cent of tuition and fees, 1969-72, with the growth rate of tuition and fees 6.5 per cent greater than that of student aid. Excluding Group F, the average percentage of tuition and fees devoted to student aid was 15.1 per cent. Group F more than doubled this percentage with 33.1 per cent.

Only Group B increased the proportion of tuition and fees devoted to student aid and that very slightly, 1969-72.

The decreases in the proportion of tuition and fees applied to student aid by the other groups follows: Group A, 0.44 per cent; Group C, 1.02 per cent; Group D, 1.83 per cent; Group E, 3.85 per cent and Group F, 3.87 per cent.

Data on student aid expenditures and tuition and fees are given in Table 40.

Student Aid and the Commonwealth

Student aid from the Commonwealth is the function of the Pennsylvania Higher Education Assistance Agency. PHEAA increased the number of awards to students, 1969-72, in CICU institutions from 20,783 to 23,093, an increase of 2,310 or 11.1 per cent. Of the 26,647 awards to private colleges in 1971-72, students in CICU institutions in this study received 86.3 per cent. These awards to CICU students represented 26.9 per cent of total PHEAA awards. Correlatively, it should be noted that 12,699 PHEAA awards, amounting to \$7.7 million, went to out-of-state institutions, equalling 12.8 per cent of all awards.

¹³Enrollment figures for 1973 were reported by the Pennsylvania Department of Education, Bureau of Information Systems, Division of Educational Statistics, November 29, 1973.

Table 40

Student Aid Expenditures as Percentage
of Tuition and Fee Revenue, 1969-72*

| Group | | 1969-70 | 1970-71 | 1971-72 | Average Annual Per Cent Change |
|-------|-------------------------------|----------|----------|----------|---|
| A | (1) Student Aid | \$ 1,010 | \$ 1,101 | \$ 1,214 | + 9.7 |
| | (2) Tuition and Fees | 6,941 | 7,405 | 8,602 | +11.4 |
| | (1) as per cent of (2) | 14.55 | 14.86 | 14.11 | +14.5 |
| | (3) Effective Rate Difference | | | | + 1.7 |
| B | (1) Student Aid | 2,889 | 3,341 | 3,597 | +11.7 |
| | (2) Tuition and Fees | 17,840 | 20,047 | 21,485 | + 9.7 |
| | (1) as per cent of (2) | 16.19 | 16.66 | 16.74 | +16.5 |
| | (3) Effective Rate Difference | | | | - 2.0 |
| C | (1) Student Aid | 8,775 | 9,597 | 10,201 | + 7.9 |
| | (2) Tuition and Fees | 62,576 | 71,168 | 78,427 | +11.9 |
| | (1) as per cent of (2) | 14.02 | 13.48 | 13.00 | +13.5 |
| | (3) Effective Rate Difference | | | | + 4.0 |
| D | (1) Student Aid | 4,173 | 4,253 | 4,490 | + 3.8 |
| | (2) Tuition and Fees | 23,612 | 26,080 | 28,337 | + 9.5 |
| | (1) as per cent of (2) | 17.67 | 16.30 | 15.84 | +16.6 |
| | (3) Effective Rate Difference | | | | + 5.7 |
| E | (1) Student Aid | 7,176 | 6,972 | 6,811 | - 2.6 |
| | (2) Tuition and Fees | 43,136 | 48,590 | 53,262 | +11.0 |
| | (1) as per cent of (2) | 16.63 | 14.34 | 12.78 | +14.5 |
| | (3) Effective Rate Difference | | | | +13.6 |
| F | (1) Student Aid | 18,561 | 19,198 | 19,870 | + 3.5 |
| | (2) Tuition and Fees | 53,128 | 57,545 | 63,972 | + 9.7 |
| | (1) as per cent of (2) | 34.93 | 33.36 | 31.06 | +33.1 |
| | (3) Effective Rate Difference | | | | + 6.2 |
| A-F | (1) Student Aid | 42,584 | 44,462 | 46,183 | + 4.2 |
| | (2) Tuition and Fees | 207,233 | 230,835 | 254,085 | +10.7 |
| | (1) as per cent of (2) | 20.54 | 19.26 | 18.17 | +19.3 |
| | (3) Effective Rate Difference | | | | + 6.5 |

*Dollars in thousands.

PHEAA awards to all students in 1971-72 totaled \$57.6 million, of which \$19.1 million, or 33.1 per cent, went to CICU students. These student awards represented 3.25 per cent of the total income of CICU institutions. The dollar value of PHEAA awards to CICU students increased from \$15.1 million to \$19.1 million, 1969-72, or \$4 million, an increase of 23.3 per cent.

PHEAA awards averaged \$840 each to students in private colleges in 1971-72 compared with \$828 each for CICU students. PHEAA awards to students in CICU institutions went principally to those in Group C and Group E institutions, totaling 15,053, or 65.2 per cent.

PHEAA also administers a guaranteed loan program, which provided loans amounting to \$24 million in 1971-72 to students in private higher education, with loans to full-time undergraduates averaging \$1,230 each.¹⁴ CICU students representing 91.6 per cent of private enrollment received an estimated \$24 million in guaranteed loans, which indirectly aided CICU institutions.

Table 41 provides data on PHEAA programs.

Higher Education Institutional Aid by the Commonwealth

The state aids independent higher education institutions not only through its PHEAA programs but also through its annual appropriations to 12 institutions. Four of these state-aided institutions are included in this CICU survey. The FTEE state aid to these institutions was in Group A, \$978 to institution (1) and \$532 to institution (2); in Group E, \$368 and in Group F, \$1,318.

This state aid, 1969-72, amounted to \$46.3 million and tended to avoid operating deficits for Group A of \$1.5 million; Group E, \$2.9 million and Group F, \$52.3 million (Table 42).

Table 42 shows impact of state aid on CICU institutions.

Overall Financial Health of CICU Institutions

Annual operating results (total current income--total current expenditures) are decisive indicators of the fiscal health of institutions, but their impact on institutions should be examined in relation to all financial resources. Changes in endowment funds and liquid net worth are also quite relevant to institutional fiscal health.

Endowment Funds

Table 43 shows total endowment funds of CICU institutions, 1969-72, increasing from \$558.2 million to \$744.7 million, a total of \$186.5 million, an average increase of 16.7 per cent. Group A showed the largest increase, 49.4 per cent; Group F, the lowest increase, 30.0 per cent; with an average group increase, 1969-72, of 33.4 per cent.

¹⁴Annual Report 1971-72, Pennsylvania Higher Education Assistance Agency, p. 27ff.

Table 41

PHEAA Awards With Number and Dollar Changes, 1969-72
(Dollars in thousands)

| Group | Awards--Number | | Amount of Awards | | | Number Change | Per Cent | Dollar Change | Per Cent |
|-------|----------------|----------------|------------------|----------------|----------------|------------------|-------------|------------------|-------------|
| | 1969-70 (1) | 1970-71 (2) | 1971-72 (3) | 1969-70 (4) | 1970-71 (5) | | | | |
| A | 885 | 1,063 | 1,239 | \$ 641 | \$ 734 | \$ 949 | 354 | \$ 308 | 48.0 |
| B | 3,286 | 3,351 | 3,427 | 2,284 | 2,274 | 2,490 | 141 | 206 | 9.0 |
| C | 9,175 | 9,528 | 10,127 | 6,903 | 6,948 | 8,392 | 952 | 1,489 | 21.6 |
| D | 1,119 | 1,139 | 1,279 | 1,010 | 968 | 1,177 | 160 | 167 | 16.5 |
| E | 5,049 | 4,913 | 4,926 | 3,307 | 3,191 | 4,140 | -123 | - 833 | -25.2 |
| F | 1,269 | 1,857 | 2,090 | 948 | 1,395 | 1,970 | 821 | 1,022 | 107.8 |
| Total | 20,783 | 21,851 | 23,088 | \$15,093 | \$15,510 | \$19,118 | 2,301 | \$4,025 | 23.3 |

The 23,088 PHEAA Awards to students in independent higher education institutions in 1971-72 represented \$19,118,000 or an average value each of \$828. During the 1969-72 period the number of awards increased 11.1 per cent and the total amount increased 23.3 per cent. These awards equaled 3.25 per cent of the total budget of the CICU institutions in 1971-72.

Table 42

Operating Result and State Aid Impact by Group and Institution, 1969-72¹

| Group | Number Institu- tion | Number With State Aid | 1969-70 | | 1970-70 | | 1971-72 | | Group Oper- ating Result Without State Aid | | Institu- tional Operating Result With State Aid | Institu- tional FTEE State Aid | |
|-------|----------------------------|--------------------------------|-----------------------------------|--------------|-----------------------------------|--------------|-----------------------------------|--------------|--|--------------|---|--|-------|
| | | | Group Oper- ating Result | State Aid | Group Oper- ating Result | State Aid | Group Oper- ating Result | State Aid | Group Oper- ating Result | State Aid | | | |
| A | 7 | 2 | 122 | 509 | 67 | 509 | -48 | 545 | +41 | 1,563 | -1,522 | +77 | \$978 |
| E | 5 | 1 | -2,439 | 2,427 | 3,292 | 2,427 | 3,651 | 2,607 | +4,504 | 7,461 | -2,957 | -226 | 532 |
| F | 4 | 1 | -5,540 | 12,238 | -4,810 | 12,100 | -4,547 | 13,031 | -14,897 | 37,369 | -52,266 | +1,952 | 368 |
| | | | | | | | | | | | | | 1,318 |

¹Dollars are shown in thousands. Of four state-aided institutions in survey of private colleges and universities, two attained a favorable balance in revenues and expenditures.

Table 43

Changes in Endowment Funds, 1969-72*

| Group | 1969-70 | 1970-71 | 1971-72 | 1969-72 Increase | Per Cent Change | Average Per Cent Change |
|-------|-----------|-----------|-----------|---------------------|--------------------|----------------------------|
| A | \$ 13,023 | \$ 18,124 | \$ 19,454 | \$ 6,431 | 49.4 | +24.7 |
| B | 7,615 | 9,319 | 10,394 | 2,779 | 36.5 | +18.3 |
| C | 48,681 | 59,142 | 66,315 | 17,634 | 36.2 | +18.1 |
| D | 149,891 | 190,091 | 206,892 | 57,001 | 38.0 | +19.0 |
| E | 49,161 | 60,779 | 65,017 | 15,856 | 32.3 | +16.2 |
| F | 289,799 | 357,118 | 376,630 | 86,831 | 30.0 | +15.0 |
| Total | \$558,170 | \$694,573 | \$744,702 | \$186,532 | 33.4 | +16.7 |

*Dollars in thousands.

Endowment Fund Income

Endowment fund income of CICU institutions increased from \$24.7 million to \$25.3 million, 1969-72, and this trend projects endowment income of \$26.1 million in 1975-76. The average rate of increase in endowment income was 1.21 per cent.

The rate of return in 1971-72 on endowment funds was 3.4 per cent, compared with 3.6 per cent in 1965-66, 5.2 per cent in 1970-71, and a projected rate of 4.3 per cent in 1975-76, according to the McKinsey report.

Table 44 presents relevant data.

Table 44

Changes in Endowment Income, 1969-72*

| Group | 1969-70 Income | 1970-71 Income | 1971-72 Income | Annual Income | Projection 1975-76 |
|-------|-------------------|-------------------|-------------------|------------------|-----------------------|
| A | \$ 513 | \$ 588 | \$ 620 | +10.02 | 908 |
| B | 262 | 289 | 288 | + 4.98 | 350 |
| C | 2,174 | 2,398 | 2,539 | + 8.08 | 3,465 |
| D | 5,586 | 5,830 | 5,657 | + 0.65 | 5,805 |
| E | 1,920 | 2,049 | 1,930 | + 0.55 | 1,974 |
| F | 14,328 | 15,462 | 14,322 | - 0.04 | 14,298 |
| Total | \$24,783 | \$26,616 | \$25,356 | + 1.21 | \$26,078 |

*Dollars in thousands.

Table 45

Changes in Liquid Net Worth, 1969-70 to 1971-72, Using End of Year Statistics*

| Group | 1969- 1970 | 1970- 1971 | 1971- 1972 | Dollar Change 1969-72 | Rate of Change |
|---------------------------------|---------------|---------------|---------------|-----------------------------|-------------------|
| A 1. Current Fund Balance | 766 | 410 | 418 | - 348 | - 21.4 |
| 2. Unexpended Plant Fund | 876 | 614 | 998 | + 122 | + 6.9 |
| 3. Quasi-endowment and Other | 1,993 | 2,384 | 2,478 | + 485 | + 12.2 |
| TOTAL | 3,635 | 3,408 | 3,894 | + 209 | + 3.3 |
| B 1. Current Fund Balance | 427 | 461 | 448 | + 21 | + 2.4 |
| 2. Unexpended Plant Fund | 6,035 | 7,100 | 6,590 | + 555 | + 4.6 |
| 3. Quasi-endowment and Other | 3,633 | 3,705 | 3,876 | + 243 | + 3.3 |
| TOTAL | 10,095 | 11,266 | 10,914 | + 819 | + 4.1 |
| C 1. Current Fund Balance | 2,606 | 2,612 | 3,569 | + 963 | + 18.5 |
| 2. Unexpended Plant Fund | 14,463 | 13,769 | 19,845 | + 5,382 | + 18.7 |
| 3. Quasi-endowment and Other | 9,324 | 8,844 | 12,256 | + 2,932 | + 17.4 |
| TOTAL | 26,393 | 25,225 | 35,760 | + 9,277 | + 17.6 |
| D 1. Current Fund Balance | 28,178 | 30,032 | 30,806 | + 2,628 | + 4.7 |
| 2. Unexpended Plant Fund | 5,972 | 5,840 | 9,013 | + 3,041 | + 25.5 |
| 3. Quasi-endowment and Other | 18,272 | 18,575 | 22,047 | + 3,775 | + 10.3 |
| TOTAL | 52,422 | 54,447 | 61,866 | + 9,444 | + 9.0 |
| E 1. Current Fund Balance | 1,449 | 1,474 | 1,451 | + 2 | + 0.07 |
| 2. Unexpended Plant Fund | 1,601 | 4,682 | 4,823 | + 3,222 | +100.6 |
| 3. Quasi-endowment and Other | 14,637 | 13,374 | 13,808 | - 829 | - 2.8 |
| TOTAL | 17,637 | 19,530 | 20,082 | + 2,395 | + 6.8 |
| F 1. Current Fund Balance | 37,718 | 33,173 | 34,144 | - 3,574 | - 4.8 |
| 2. Unexpended Plant Fund | 15,909 | 12,367 | 13,788 | - 2,121 | - 6.7 |
| 3. Quasi-endowment and Other | 147,720 | 145,961 | 155,240 | + 7,520 | + 5.9 |
| TOTAL | 201,347 | 191,501 | 203,172 | + 1,825 | + 4.3 |
| A-F 1. Current Fund Balance | 71,144 | 68,162 | 70,836 | - 308 | - 0.2 |
| 2. Unexpended Plant Fund | 44,856 | 44,372 | 55,057 | +10,201 | + 11.4 |
| 3. Quasi-endowment and Other | 195,579 | 192,843 | 209,705 | +14,126 | + 3.6 |
| TOTAL | 311,579 | 305,377 | 335,598 | +24,019 | + 3.9 |

*Dollars in thousands

Liquid Net Worth of Institutions Having Operational Deficits, 1969-72

Nineteen CICU institutions had a deficit condition for the 1969-72 period. In Table 46, the amount of deficits and liquid net worth of each of these institutions is given. Liquid net worth of an institution includes unexpended current fund balance, plant fund balance and quasi-endowment funds and is ostensibly available usable assets.

Table 46 shows that five of the 19 CICU institutions having deficit conditions, 1969-72, had no liquid net worth in 1971-72 to mitigate the impact of the deficits. Eight of the 19 institutions had liquid net worth that could absorb the deficits, if necessary, varying from 2 to 85 years. Six institutions had no liquid net worth and operational results in 1971-72. Three institutions, numbers 11, 12 and 15, had a surplus in liquid net worth and operational results in 1971-72.

Table 46

Liquid Net Worth of CICU Institutions Having Operational Deficits, 1969-72, and Comparison of Liquid Net Worth and Operating Results for 1971-72*

| Institutions | Liquid Net Worth 1971-72 | Operating Result 1971-72 | Operating Result | Years to Use Liquid Net Worth |
|--------------|--------------------------|--------------------------|------------------|-------------------------------|
| 1 | -\$ 144 | -\$ 47 | -\$ 191 | 0 |
| 2 | 106 | - | - | - |
| 3 | 1,523 | - 77 | 1,446 | 19.7 |
| 4 | - 698 | - 24 | - 722 | 0 |
| 5 | 627 | - 290 | 337 | 2.2 |
| 6 | - 165 | - 165 | - 330 | 0 |
| 7 | - 16 | - 146 | - 162 | 0 |
| 8 | 626 | - 124 | 502 | 5 |
| 9 | - 143 | - 170 | - 313 | 0 |
| 10 | 448 | - 26 | 422 | 17.2 |
| 11 | 1,207 | 15 | 1,222 | - |
| 12 | 1,206 | 21 | 1,227 | - |
| 13 | 3,354 | - | - | - |
| 14 | 25,954 | - 305 | 25,649 | 85 |
| 15 | 858 | 272 | 1,130 | - |
| 16 | 1,456 | - 471 | 985 | 3.1 |
| 17 | - 1,540 | 116 | - 1,424 | 0 |
| 18 | 12,465 | - 1,372 | 11,093 | 9 |
| 19 | \$124,269 | -\$4,167 | \$120,102 | 29 |

*Dollars in thousands.

Projection of Financial Operating Condition

Disregarding liquid net worth of the 19 CICU institutions which were in a deficit operational condition, 1969-72, and projecting the

financial operational trend of each to 1975-76, the researcher found that nine institutions would be in a surplus condition and 10 in a deficit condition. Within two to five years, 1976-81, four of these deficit institutions could become operational surplus institutions. The remaining six deficit institutions would continue their financially deteriorating condition unless the recent trend were reversed by appropriate measures. Three of these six seemed to be in the process of reversing the negative financial trend (Table 47).

Table 47

Projection of Financial Operating Condition of CICU
Institutions Having a Deficit, 1969-72, to 1975-76*

| Institution | 1969-70 | 1970-71 | 1971-72 | Amount Change 1969-72 | Projected Opera- tional Condition 1975-76 |
|-------------|----------|----------|----------|-----------------------------|---|
| 1 | -\$ 65 | - 109 | -\$ 47 | + 18 | - 11 |
| 2 | - 13 | 1 | - | + 14 | + 29 |
| 3 | - 20 | - 129 | - 77 | - 57 | + 35 |
| 4 | - 2 | - 16 | - 24 | - 22 | - 68 |
| 5 | - 44 | - 420 | - 290 | - 246 | + 202 |
| 6 | 17 | - 66 | - 165 | - 182 | - 529 |
| 7 | - 185 | - 89 | - 146 | + 39 | - 70 |
| 8 | - 154 | - 194 | - 124 | + 30 | - 64 |
| 9 | 22 | - 144 | - 170 | - 192 | - 554 |
| 10 | 3 | - 91 | - 26 | - 23 | + 20 |
| 11 | - 100 | 26 | 15 | + 115 | + 245 |
| 12 | - 179 | 1 | 21 | + 200 | + 421 |
| 13 | - 423 | - 1 | - | + 422 | + 487 |
| 14 | - 143 | - 114 | - 305 | - 162 | - 629 |
| 15 | - 1,197 | - 89 | 272 | + 1,469 | + 3,210 |
| 16 | - 473 | - 426 | - 471 | + 2 | - 467 |
| 17 | - 2,065 | 472 | 116 | + 2,181 | + 4,498 |
| 18 | - 1,241 | - 1,425 | - 1,372 | - 131 | - 1,160 |
| 19 | -\$5,102 | -\$3,909 | -\$4,167 | + 935 | - 2,297 |

*Dollars in thousands.

Although the trend for three institutions predicts nothing but negative financial results, the actual amounts of the deficits, 1969-72, do not seem to prohibit rehabilitative measures. The amount of negative change for institution number 4 was only \$22,000; for number 6, \$182,000 and for number 9, \$192,000 compared to their current expenditures in 1971-72 of \$1.3 million, \$1.9 million and \$6.4 million, respectively. These deficits, then, represented only 1.7 per cent of the 1971-72 current revenues for institution number 4; 9.6 per cent for number 6 and three per cent for number 9.

Institution number 4 had a loss of enrollment, 1972-73 to 1973-74, of 117; number 6 gained 50 students and number 9 lost 8 students. Only institution number 4 seemed to have a significant student enrollment problem.

Additional Institutional Capacity

Additional enrollment desired by CICU institutions, as indicated by respondents, increased from 7,660 students, 1971-72, to 8,947 students, 1972-73, an increase of 1,287 or 16.8 per cent. From 1971-72 to 1972-73, these same institutions increased their total enrollment by 1,204 students, but Group B lost 174 students (Table 49). From 1972-73, losses in enrollment were: Group A, 114; Group B, 116; Group C, 1,209, a total of 1,439. For the same period gains were: Group D, 223; Group E, 42 and Group F, 369, a total of 634. The overall result for the six Groups A-F was a loss of 805 students.¹⁶

Table 48

Additional Enrollment Desired, 1971-72 and 1972-73

| Group | Number Students | Number Students | Difference |
|-------|--------------------|--------------------|------------|
| | Desired 1971-72 | Desired 1972-73 | |
| A | 525 | 547 | + 22 |
| B | 2,994 | 3,028 | + 34 |
| C | 2,141 | 3,082 | + 941 |
| D | 450 | 545 | + 95 |
| E | 650 | 1,095 | + 445 |
| F | 900 | 650 | - 250 |
| Total | 7,660 | 8,947 | +1,287 |

Since CICU institutions gained 1,204 students in 1972-73, the net desired increase in enrollment became 7,743 students, but with the net loss of 1,209 students in 1973-74, they then desired 8,952 students.

Nonutilized student housing capacity 1972-73. Having indicated a desire for 8,947 additional students, the CICU institutions also indicated housing available at the colleges and in the community, as shown in Table 49.

For all groups available student housing spaces (9,569) exceeded the number of students desired (8,947). Groups A, B and E had fewer housing spaces (1,850) than the desired enrollment (4,670). Groups C, D and F had housing spaces (7,719) which greatly exceeded the desired enrollment increase (4,670). It seems reasonable to assume that this disparity may be due to anticipated enrollment of commuter students in Groups A, B and E institutions. With Groups C, D and F apparently more housing is available than could be used by students that could be accommodated without expansion of faculty. Another possibility is that Group F may have greatly overestimated available community student housing (3,260).

¹⁶Preliminary Report on Fall Enrollments at Pennsylvania's Colleges and Universities, Division of Educational Statistics, Bureau of Information Systems, November 29, 1973.

Table 49

Housing Capacity Available for Desired
Additional Enrollment, 1972-73

| Group | On Campus | | Community | Fall Housing Campus and Community |
|-------|-----------|--------|-----------|---|
| | Fall | Spring | | |
| A | 179 | 245 | 120 | 299 |
| B | 438 | 535 | 163 | 601 |
| C | 2,163 | 2,446 | 1,392 | 3,555 |
| D | 437 | 204 | 266 | 703 |
| E | - | 80 | 950 | 950 |
| F | 201 | 212 | 3,260 | 3,461 |
| Total | 3,418 | 3,722 | 6,151 | 9,569 |

Additional enrollment desired by instructional program without increasing faculty is shown by group in Table 50. In Survey Form IX, this item is denoted as "Excess Departmental Enrollment Capacity," and departments reported this as 17,759, almost double the number for which space was indicated as available. Table 50 shows program capacities reduced in proportion to available space.¹⁷

If one were to consider five courses per student as an average course load, he could interpret the "excess" enrollment potential as 3,552 students instead of 8,202 determined in Table 50. This would be questionable because few students would be taking engineering. In addition, Group F gave a count for space but none for programs. Group C and Group D gave program counts very disproportionate to their space count.

CICU institutions had the physical space as well as the departmental student program vacancies for a larger enrollment of students in 1972-73 without any increase in faculty.

¹⁷Martinko, Agnes. Additional Institutional Capacity, developed from Form IX, Survey of Independent Colleges and Universities, Division of Educational Statistics, Pennsylvania Department of Education, September 1973.

Table 50

Desired Enrollment in Instructional Program Areas, 1972-73

| Group | Desired Enrollment Increase in Space Available | Desired Enrollment Increase Reported by Departments | Department Student Vacancies Reported as Adjusted ¹ | | | | | | | | | | | | |
|-------|--|---|--|-------|--------------|-------|--------------|-------|-------------|-------|-------|-------|-------|-----|-----|
| | | | Humanities | | Soc. Science | | Science/Math | | Engineering | | Other | | | | |
| | | | Upper | Lower | Upper | Lower | Upper | Lower | Upper | Lower | Upper | Lower | | | |
| A | 547 | 405 | - | 120 | - | 25 | 76 | 129 | - | 25 | - | - | - | - | 126 |
| B | 3,028 | 4,722 | 467 | 578 | 299 | 220 | 285 | 313 | - | - | - | - | - | 513 | 353 |
| C | 3,032 | 8,548 | 717 | 617 | 260 | 104 | 442 | 242 | 57 | - | - | - | - | 382 | 212 |
| D | 545 | 2,574 | 41 | 244 | 10 | 61 | 15 | 82 | - | - | - | - | - | 12 | 79 |
| E | 1,095 | 1,510 | 120 | 160 | 65 | 73 | 69 | 98 | - | 18 | - | - | - | 268 | 225 |
| F | 650 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 8,897 | 17,759 | 1,345 | 1,719 | 634 | 483 | 887 | 864 | 57 | 43 | 57 | 43 | 1,175 | 995 | |

¹Desired enrollment reported by departments was adjusted according to space available as shown in first column.



REASSESSMENT OF RETRENCHMENT PROPOSALS

The original McKinsey report, February 1971, proposed four retrenchment actions to help the independent colleges and universities achieve financial viability: (1) increase student-faculty ratio by two per cent per year, (2) reduce enrollment growth to one per cent per year, (3) reduce student aid as a fraction of tuition by two per cent per year to 16 per cent by 1975-76 and (4) reduce administrative and general expenditures by two per cent per year from projected expenditures.¹⁸

Proposal One: Increase Student Faculty Ratio

This study found that the CICU institutions increased their average annual student-faculty ratio, 1969-70 to 1971-72, by only 1.57 per cent, falling short of the McKinsey goal by 0.43 per cent. The increase in student-faculty ratio of many institutions were obscured by the Group F decreases in student-faculty ratio, 8.7 to 1 to 8.5 to 1. The Group F graduate schools historically maintain low student-faculty ratios.

It would seem that institutional research studies to determine optimum class size, student faculty ratio and faculty load might be useful in developing greater cost effectiveness in the instructional program. The use of appropriate learning technology and modification of organizational structure and operation might prove fruitful in increasing faculty cost effectiveness.

Proposal Two: Reduce Enrollment Growth to One Per Cent Per Year

CICU institutions in this study had an average annual growth rate in FTE enrollment, 1969-70 to 1971-72, of 2.26 per cent, 1.26 more than proposed by the McKinsey report. In 1972-73, however, the growth rate for independent higher education in the Commonwealth dropped to 0.58 per cent.

Decreasing enrollment growth is cost effective only when such growth would require plant and facilities expansion, faculty expansion and extra student services not included in tuition and fees. For institutions having underutilized capacity in space and faculty, additional students could be highly cost effective. In fact, increasing the number of part-time students, and consequently the FTE enrollment, could increase the income and services of the institution with little increase in overhead costs.

Table 51 provides enrollment and financial data.

Using a rank order correlation technique, the researcher found a

¹⁸Op. cit., McKinsey, Chapter 3, p. 7.

Table 51

Relationship of Change in Enrollment
and Change in Operating Results

| Deficit Institutions | Enrollment Increase/ Decrease 1969-72 | Net Operating Result 1969-72 | Enrollment Increase/ Decrease 1972-73 |
|-------------------------|--|---------------------------------------|--|
| 1 | + 87 | + 18 | - 21 |
| 2 | + 124 | + 14 | - 14 |
| 3 | + 19 | - 57 | + 39 |
| 4 | + 76 | - 22 | + 50 |
| 5 | - 378 | - 246 | - 277 |
| 6 | - 57 | - 182 | - 117 |
| 7 | - 22 | + 39 | + 129 |
| 8 | + 56 | + 30 | - 52 |
| 9 | - 63 | - 23 | + 10 |
| 10 | - 57 | + 115 | - 91 |
| 11 | + 122 | - 192 | - 8 |
| 12 | + 34 | + 200 | - 112 |
| 13 | - 101 | + 422 | + 228 |
| 14 | + 154 | + 1,469 | - 80 |
| 15 | - 103 | + 2 | + 87 |
| 16 | + 443 | + 2,181 | - 164 |
| 17 | + 38 | - 162 | - 3 |
| 18 | + 127 | - 131 | + 16 |
| 19 | + 135 | + 935 | - 7 |

positive correlation, $r = .361$, between favorable enrollment change and favorable dollar change in operating results of the 19 CICU institutions having operating deficits, 1969-72. Changes in enrollment, then, accounted for only ($r^2 = .130$) 13 per cent of the variance in operating results of these institutions. Conversely, factors other than enrollment accounted for 87 per cent of the variance in operating results. Too much noncost-effective enrollment does not seem to be a serious problem with these institutions.

Proposal Three: Reduce Student Aid as a Fraction of Tuition
by Two Per Cent Per Year to 16 Per Cent by 1975-76

Table 40 showed that student aid, 1969-72, took the following proportions of tuition and fees: Group A, 14.5 per cent; Group B, 16.5 per cent; Group C, 13.5 per cent; Group D, 16.6 per cent; Group E, 14.5 per cent and Group F, 33.1 per cent. Groups A, C and E were already below the 16 per cent goal proposed. Groups B and D were about one-half per cent above the proposed goal. Group F used more than two times the proposed proportion for student aid and was the only group requiring a big change.

Proposal Four: Reduce Administrative and General Expenditures
by Two Per Cent Per Year From Projected Expenditures

Reduction of administrative and general category expenditures is a real challenge and one to which the various groups of CICU institutions have not responded. Table 52 shows the data on increasing expenditures for the administration and general category.

In the administration and general category expenditures have increased from \$56.3 million to \$66.0 million, 1969-72, a total of \$9.6 million, and at an average annual rate of 8.2 per cent. Even a reduction of two per cent in the annual rate would see these expenditures increasing at 6.2 per cent per year, which may not be sufficient reduction for cost effectiveness.

Table 52

Administration and General Expenditures by Group,
with Annual Rate of Change 1969-72

| Group | 1969-70 | 1970-71 | 1971-72 | Rate of Change Per Year |
|-------|----------|----------|----------|-------------------------------|
| A | \$ 2,372 | \$ 2,748 | \$ 2,898 | + 8.2 |
| B | 5,909 | 6,617 | 7,329 | + 9.6 |
| C | 18,073 | 20,158 | 21,329 | + 8.9 |
| D | 9,348 | 9,570 | 10,340 | + 4.7 |
| E | 11,338 | 12,259 | 13,089 | + 7.4 |
| F | 9,358 | 10,100 | 11,046 | + 9.6 |
| Total | \$56,398 | \$61,452 | \$66,031 | + 8.2 |

The average annual rate of increase in administration and general expenditures ranged from 4.7 per cent for Group D to 9.6 per cent for Groups B and F.

Appendix A

Member Institutions of the Commission for Independent
Colleges and Universities (CICU) Utilizing the
Grouping Devised by McKinsey & Company

GROUP A--7 Institutions

| | |
|-------------------------------|----------------------------------|
| Dropsie University | Philadelphia College of Pharmacy |
| Keystone Junior College | Philadelphia College of Textiles |
| Mount Aloysius Junior College | Saint Charles Borromeo Seminary |
| Philadelphia College of Art | |

GROUP B--14 Institutions

| | |
|---|------------------------------|
| Allentown College of Saint Francis de Sales | LaRoche College |
| Cabrini College | Mercyhurst College |
| Chestnut Hill College | Our Lady of Angels College |
| Gannon College | Robert Morris College |
| Geneva College | Saint Francis College |
| Holy Family College | Villa Maria College |
| Immaculata College | York College of Pennsylvania |

GROUP C--29 Institutions

| | | |
|-----------------------|------------------------|------------------------|
| Albright College | LaSalle College | Saint Joseph's College |
| Allegheny College | Lebanon Valley College | Saint Vincent College |
| Alliance College | Lycoming College | Seton Hill College |
| Beaver College | Marywood College | Susquehanna University |
| Carlow College | Messiah College | Thiel College |
| Cedar Crest College | Moravian College | Ursinus College |
| College Misericordia | Muhlenberg College | Waynesburg College |
| Elizabethtown College | Widener College | Westminster College |
| Juniata College | Point Park College | Wilkes College |
| King's College | Rosemont College | |

GROUP D--9 Institutions

| | |
|-----------------------------|--------------------------------|
| Chatham College | Lafayette College |
| Dickinson College | Swarthmore College |
| Franklin & Marshall College | Washington & Jefferson College |
| Gettysburg College | Wilson College |
| Haverford College | |

GROUP E--5 Institutions

| | |
|---------------------|------------------------|
| Bucknell University | Villanova University |
| Drexel University | University of Scranton |
| Duquesne University | |

GROUP F--4 Institutions

| | |
|----------------------------|----------------------------|
| Bryn Mawr College | Lehigh University |
| Carnegie-Mellon University | University of Pennsylvania |

Appendix B

Summaries of Financial Data For
CICU Higher Education Institutions

Group A

Group B

Group C

Group D

Group E

Group F

Group A-F

GROUP A

| | 1969-70 | 1970-71 | 1971-72 | 1975-76 |
|--|---------|---------|---------|---------|
| I-II. ENROLLMENT AND FACULTY | | | | |
| FTEE | 5,270 | 5,460 | 5,684 | 6,711 |
| Weighted FTEE | 5,465 | 5,635 | 5,861 | 6,754 |
| Full-time Equivalent Teaching Faculty | 392 | 416 | 437 | 545 |
| Weighted FTEE/Teaching Faculty Ratio | 13.9 | 13.5 | 13.4 | 12.4 |
| III. OPERATING REVENUES (thousands)(total) | 11,652 | 12,908 | 14,006 | 20,200 |
| A. Educational and General Revenue (total) | 9,072 | 10,069 | 11,050 | 15,950 |
| Tuition and Fees | 3,241 | 7,405 | 8,602 | 13,256 |
| Endowment Income | 513 | 588 | 620 | 908 |
| Private Gifts and Grants | 565 | 813 | 586 | 645 |
| State Maintenance | 509 | 509 | 545 | 626 |
| Sponsored Research | 65 | 221 | 214 | 243 |
| Separately Budgeted Research | 102 | 0 | 0 | |
| Other Educational and General | 377 | 533 | 483 | 882 |
| B. Student Aid Revenue | 745 | 840 | 866 | 1,200 |
| C. Major Public Service Program Revenue | 0 | 0 | 0 | 0 |
| D. Auxiliary Enterprise Revenue (total) | 1,835 | 1,999 | 2,090 | 1,868 |
| Housing | 653 | 737 | 815 | 1,370 |
| Food Service | 475 | 483 | 539 | 688 |
| Other Auxiliary | 707 | 779 | 736 | 810 |
| IV. OPERATING EXPENDITURES (thousands)(total) | 11,530 | 12,841 | 14,054 | 20,900 |
| A. Educational and General Expenditures (total) | 8,800 | 9,735 | 10,676 | 15,710 |
| Instruction-Salaries | 3,509 | 3,923 | 4,371 | 6,554 |
| Instruction-Other | 815 | 839 | 1,029 | 1,665 |
| Extension and Public Service | 94 | 82 | 87 | 61 |
| Libraries | 408 | 412 | 474 | 645 |
| Plant Maintenance and Operation | 1,024 | 1,183 | 1,272 | 1,967 |
| General Administration, General Institutional | 1,690 | 1,945 | 2,006 | 2,633 |
| Student Services | 682 | 803 | 892 | 1,527 |
| Sponsored Research | 94 | 261 | 196 | 87 |
| Separately Budgeted Research | 133 | 0 | 0 | 0 |
| Other Educational and General 9, 10, 11 | 291 | 268 | 349 | 710 |
| B. Student Aid Expenditures | 1,010 | 1,101 | 1,214 | 1,600 |
| C. Major Public Service Program Expenditures | 0 | 0 | 0 | 0 |
| D. Auxiliary Enterprise Expenditures (total) | 1,720 | 2,005 | 2,164 | 2,695 |
| Housing | 641 | 724 | 780 | 3,400 |
| Food Service | 464 | 452 | 508 | 614 |
| Other Auxiliary | 615 | 829 | 866 | 1,186 |
| OPERATING RESULT III - IV (thousands) | 122 | 67 | - 48 | - 700 |
| V. PLANT AND INDEBTEDNESS | | | | |
| Plant Expenditures (End of period)(thousands) | 4,360 | 2,268 | 2,236 | 840 |
| Indebtedness (End of period) | 6,008 | 6,516 | 7,727 | 7,174 |
| Increase in Indebtedness | | 508 | 1,211 | - 553 |
| Debt Service (End of period) | 351 | 462 | 475 | 436 |
| Increase in Debt Service | | 111 | 13 | - 39 |
| Debt Service Per Student | 66.60 | 84.62 | 83.57 | 64.96 |
| Debt Service as Per Cent of Operating Expense | 3.0 | 3.6 | 3.4 | 2.1 |

GROUP B

| | 1969-70 | 1970-71 | 1971-72 | 1975-76 |
|--|---------|---------|---------|---------|
| I-II. ENROLLMENT AND FACULTY | | | | |
| FTEE | 16,688 | 17,299 | 17,082 | 17,090 |
| Weighted FTEE | 16,939 | 17,595 | 17,407 | 18,386 |
| Full-time Equivalent Teaching Faculty | 962 | 1,052 | 1,052 | 1,262 |
| Weighted FTEE/Teaching Faculty Ratio | 17.6 | 16.7 | 16.5 | 14.6 |
| III. OPERATING REVENUES (thousands)(total) | 31,835 | 35,540 | 37,216 | 50,949 |
| A. Educational and General Revenue (total) | 22,480 | 25,303 | 26,593 | 37,292 |
| Tuition and Fees | 17,840 | 20,047 | 21,485 | 31,632 |
| Endowment Income | 262 | 289 | 288 | 350 |
| Private Gifts and Grants | 3,323 | 3,781 | 3,562 | 4,138 |
| State Maintenance | | | | |
| Sponsored Research | 61 | 85 | 31 | 0 |
| Separately Budgeted Research | | | 5 | |
| Other Educational and General | 994 | 1,101 | 1,222 | 1,846 |
| B. Student Aid Revenue | 1,237 | 1,705 | 1,887 | 4,500 |
| C. Major Public Service Program Revenue | | | 27 | |
| D. Auxiliary Enterprise Revenue (total) | 8,118 | 8,532 | 8,709 | 10,000 |
| Housing | 2,873 | 2,923 | 3,070 | 3,576 |
| Food Service | 3,373 | 3,477 | 3,482 | 3,712 |
| Other Auxiliary | 1,872 | 2,132 | 2,157 | 2,882 |
| IV. OPERATING EXPENDITURES (thousands)(total) | 29,576 | 33,638 | 36,035 | 54,400 |
| A. Educational and General Expenditures (total) | 19,009 | 22,016 | 23,877 | 37,746 |
| Instruction-Salaries | 7,755 | 8,732 | 9,550 | 14,483 |
| Instruction-Other | 1,230 | 1,247 | 1,327 | 1,547 |
| Extension and Public Service | 278 | 295 | 302 | 357 |
| Libraries | 1,251 | 1,406 | 1,453 | 1,966 |
| Plant Maintenance and Operation | 2,173 | 2,628 | 2,871 | 5,035 |
| General Administration, General Institutional | 4,285 | 4,788 | 5,414 | 8,629 |
| Student Services | 1,616 | 1,829 | 1,915 | 2,696 |
| Sponsored Research | 98 | 85 | 30 | 21 |
| Separately Budgeted Research | 8 | 9 | 8 | 8 |
| Other Educational and General 9, 10, 11 | 315 | 997 | 1,007 | 1,405 |
| B. Student Aid Expenditures | 2,889 | 3,341 | 3,597 | 5,600 |
| C. Major Public Service Program Expenditures | | | | |
| D. Auxiliary Enterprise Expenditures (total) | 7,678 | 8,281 | 8,561 | 10,700 |
| Housing | 2,957 | 3,252 | 3,261 | 3,594 |
| Food Service | 2,769 | 2,813 | 3,003 | 3,535 |
| Other Auxiliary | 1,952 | 2,216 | 2,297 | 3,192 |
| OPERATING RESULT III - IV (thousands) | 2,259 | 1,902 | 1,181 | - 3,451 |
| V. PLANT AND INDEBTEDNESS | | | | |
| Plant Expenditures (End of period)(thousands) | 8,789 | 7,170 | 9,843 | 13,072 |
| Indebtedness (End of period) | 25,010 | 28,234 | 31,689 | 39,591 |
| Increase in Indebtedness | | 3,224 | 3,450 | 7,902 |
| Debt Service (End of period) | 1,790 | 1,921 | 2,090 | 2,643 |
| Increase in Debt Service | | 131 | 169 | 553 |
| Debt Service Per Student | 107.26 | 111.05 | 122.35 | 154.65 |
| Debt Service as Per Cent of Operating Expense | 6.1 | 5.7 | 5.8 | 5.7 |

GROUP C

| | 1969-70 | 1970-71 | 1971-72 | 1975-76 |
|--|---------|---------|---------|---------|
| I-II. ENROLLMENT AND FACULTY | | | | |
| FTEE | 43,849 | 44,672 | 46,644 | 52,785 |
| Weighted FTEE | 44,780 | 45,709 | 47,925 | 55,070 |
| Full-time Equivalent Teaching Faculty | 2,955 | 3,102 | 3,181 | 3,696 |
| Weighted FTEE/Teaching Faculty Ratio | 15.2 | 14.7 | 15.1 | 14.9 |
| III. OPERATING REVENUES (thousands)(total) | 104,749 | 117,076 | 127,675 | 190,400 |
| A. Educational and General Revenue (total) | 74,902 | 84,848 | 93,259 | 144,607 |
| Tuition and Fees | 62,576 | 71,168 | 78,427 | 123,230 |
| Endowment Income | 2,174 | 2,398 | 2,539 | 3,465 |
| Private Gifts and Grants | 5,999 | 6,699 | 6,684 | 8,349 |
| State Maintenance | | | | |
| Sponsored Research | 347 | 460 | 600 | 640 |
| Separately Budgeted Research | 0 | 0 | 0 | |
| Other Educational and General | 3,806 | 4,123 | 5,009 | 6,467 |
| B. Student Aid Revenue | 3,836 | 4,029 | 4,430 | 5,900 |
| C. Major Public Service Program Revenue | 135 | 107 | 163 | 414 |
| D. Auxiliary Enterprise Revenue (total) | 25,876 | 28,092 | 29,823 | 39,700 |
| Housing | 8,970 | 9,645 | 10,605 | 14,823 |
| Food Service | 11,327 | 12,208 | 12,898 | 16,723 |
| Other Auxiliary | 5,579 | 6,239 | 6,320 | 7,150 |
| IV. OPERATING EXPENDITURES (thousands)(total) | 102,566 | 113,831 | 122,959 | 176,800 |
| A. Educational and General Expenditures (total) | 69,183 | 77,736 | 84,283 | 125,152 |
| Instruction-Salaries | 28,520 | 31,946 | 34,136 | 48,951 |
| Instruction-Other | 4,901 | 5,160 | 5,635 | 7,453 |
| Extension and Public Service | 731 | 786 | 733 | 738 |
| Libraries | 3,684 | 4,118 | 4,199 | 5,476 |
| Plant Maintenance and Operation | 8,823 | 10,437 | 11,559 | 19,881 |
| General Administration, General Institutional | 12,986 | 14,426 | 15,475 | 21,980 |
| Student Services | 5,087 | 5,732 | 5,854 | 8,500 |
| Sponsored Research | 198 | 213 | 409 | 2,060 |
| Separately Budgeted Research | 293 | 345 | 281 | 144 |
| Other Educational and General 9, 10, 11 | 4,000 | 4,573 | 6,002 | 13,640 |
| B. Student Aid Expenditures | 8,775 | 9,597 | 10,201 | 13,800 |
| C. Major Public Service Program Expenditures | 195 | 168 | 219 | 289 |
| D. Auxiliary Enterprise Expenditures (total) | 24,413 | 26,330 | 28,256 | 37,900 |
| Housing | 8,298 | 9,201 | 10,057 | 14,906 |
| Food Service | 10,227 | 10,806 | 11,473 | 17,943 |
| Other Auxiliary | 5,888 | 6,323 | 6,726 | 8,774 |
| OPERATING RESULT III - IV (thousands) | 2,183 | 3,245 | 4,716 | 13,600 |
| V. PLANT AND INDEBTEDNESS | | | | |
| Plant Expenditures (End of period)(thousands) | 34,650 | 34,841 | 13,552 | 5,795 |
| Indebtedness (End of period) | 100,179 | 109,554 | 113,009 | 101,023 |
| Increase in Indebtedness | | 9,375 | 3,455 | -11,986 |
| Debt Service (End of period) | 4,525 | 5,601 | 6,861 | 6,024 |
| Increase in Debt Service | | 1,076 | 1,261 | - 837 |
| Debt Service Per Student | 103.20 | 125.38 | 147.09 | 114.10 |
| Debt Service as Per Cent of Operating Expense | 4.4 | 4.9 | 5.6 | 3.4 |

GROUP D

| | 1969-70 | 1970-71 | 1971-72 | 1975-76 |
|--|---------|---------|---------|---------|
| I-II. ENROLLMENT AND FACULTY | | | | |
| FTEE | 11,638 | 12,042 | 12,059 | 12,951 |
| Weighted FTEE | 11,654 | 12,053 | 12,072 | 12,358 |
| Full-time Equivalent Teaching Faculty | 1,003 | 1,020 | 1,017 | 1,028 |
| Weighted FTEE/Teaching Faculty Ratio | 11.6 | 11.8 | 11.9 | 11.8 |
| III. OPERATING REVENUES (thousands)(total) | 50,131 | 54,060 | 56,834 | 73,800 |
| A. Educational and General Revenue (total) | 36,438 | 40,173 | 41,766 | 54,951 |
| Tuition and Fees | 23,612 | 26,080 | 28,337 | 40,814 |
| Endowment Income | 5,586 | 5,830 | 5,657 | 5,805 |
| Private Gifts and Grants | 3,800 | 4,356 | 3,917 | 4,190 |
| State Maintenance | | | | |
| Sponsored Research | 1,157 | 1,222 | 982 | 661 |
| Separately Budgeted Research | 0 | 0 | 0 | |
| Other Educational and General | 2,283 | 2,685 | 2,873 | 4,569 |
| B. Student Aid Revenue | 2,702 | 2,627 | 3,110 | 4,200 |
| C. Major Public Service Program Revenue | | | 60 | |
| D. Auxiliary Enterprise Revenue (total) | 10,991 | 11,260 | 11,898 | 14,000 |
| Housing | 3,726 | 3,949 | 4,279 | 5,642 |
| Food Service | 4,869 | 5,049 | 5,324 | 6,364 |
| Other Auxiliary | 2,396 | 2,262 | 2,295 | 2,140 |
| IV. OPERATING EXPENDITURES (thousands)(total) | 51,291 | 53,909 | 56,281 | 67,900 |
| A. Educational and General Expenditures (total) | 35,633 | 38,044 | 39,738 | 49,416 |
| Instruction-Salaries | 12,437 | 13,383 | 13,956 | 17,612 |
| Instruction-Other | 3,103 | 3,390 | 3,458 | 4,303 |
| Extension and Public Service | 197 | 257 | 192 | 180 |
| Libraries | 2,128 | 2,348 | 2,524 | 3,552 |
| Plant Maintenance and Operation | 4,453 | 4,893 | 4,704 | 4,104 |
| General Administration, General Institutional | 7,814 | 7,860 | 8,837 | 11,368 |
| Student Services | 1,534 | 1,710 | 1,503 | 1,435 |
| Sponsored Research | 1,167 | 1,237 | 1,005 | 702 |
| Separately Budgeted Research | 5 | 5 | 5 | 5 |
| Other Educational and General 9, 10, 11 | 1,795 | 2,086 | 3,544 | 14,841 |
| B. Student Aid Expenditures | 4,173 | 4,253 | 4,490 | 5,200 |
| C. Major Public Service Program Expenditures | | | 45 | |
| D. Auxiliary Enterprise Expenditures (total) | 11,485 | 11,612 | 12,008 | 13,200 |
| Housing | 4,156 | 4,263 | 4,596 | 5,628 |
| Food Service | 4,629 | 4,682 | 4,764 | 5,046 |
| Other Auxiliary | 2,700 | 2,667 | 2,648 | 2,547 |
| OPERATING RESULT III - IV (thousands) | - 1,160 | 151 | 553 | 5,900 |
| V. PLANT AND INDEBTEDNESS | | | | |
| Plant Expenditures (End of period)(thousands) | 10,332 | 4,929 | 6,094 | 6,007 |
| Indebtedness (End of period) | 44,135 | 43,417 | 42,698 | 41,251 |
| Increase in Indebtedness | | - 718 | - 819 | - 447 |
| Debt Service (End of period) | 2,839 | 2,472 | 2,429 | 2,399 |
| Increase in Debt Service | | - 367 | - 43 | - 31.3 |
| Debt Service Per Student | 243.94 | 205.28 | 201.43 | 185.16 |
| Debt Service as Per Cent of Operating Expense | 5.5 | 4.6 | 4.3 | 3.5 |

GROUP E

| | 1969-70 | 1970-71 | 1971-72 | 1975-76 |
|--|---------|---------|---------|---------|
| 1-II. ENROLLMENT AND FACULTY | | | | |
| FTEE | 30,786 | 32,078 | 33,527 | 39,752 |
| Weighted FTEE | 35,261 | 37,263 | 39,328 | 49,200 |
| Full-time Equivalent Teaching Faculty | 2,173 | 2,106 | 2,022 | 2,491 |
| Weighted FTEE/Teaching Faculty Ratio | 16.2 | 17.7 | 19.5 | 19.7 |
| III. OPERATING REVENUES (thousands)(total) | 68,868 | 78,094 | 83,704 | 120,300 |
| A. Educational and General Revenue (total) | 55,596 | 61,805 | 65,987 | 93,008 |
| Tuition and Fees | 43,136 | 48,590 | 53,262 | 67,548 |
| Endowment Income | 1,920 | 2,049 | 1,930 | 1,974 |
| Private Gifts and Grants | 1,580 | 1,894 | 1,221 | 2,337 |
| State Maintenance | 2,427 | 2,427 | 2,607 | 3,054 |
| Sponsored Research | 2,899 | 2,858 | 3,154 | 3,756 |
| Separately Budgeted Research | 0 | 0 | 0 | |
| Other Educational and General | 3,634 | 3,987 | 3,813 | 4,660 |
| B. Student Aid Revenue | 1,967 | 3,152 | 3,148 | 6,300 |
| C. Major Public Service Program Revenue | 0 | 0 | 0 | 0 |
| D. Auxiliary Enterprise Revenue (total) | 12,305 | 13,137 | 14,569 | 20,500 |
| Housing | 3,368 | 3,692 | 4,111 | 6,121 |
| Food Service | 4,514 | 4,701 | 5,344 | 7,516 |
| Other Auxiliary | 4,423 | 4,744 | 5,114 | 6,836 |
| IV. OPERATING EXPENDITURES (thousands)(total) | 71,307 | 74,802 | 80,053 | 103,100 |
| A. Educational and General Expenditures (total) | 52,100 | 54,743 | 57,999 | 71,850 |
| Instruction-Salaries | 19,646 | 20,692 | 21,365 | 25,264 |
| Instruction-Other | 5,864 | 5,926 | 6,777 | 9,118 |
| Extension and Public Service | 16 | 14 | 10 | 3 |
| Libraries | 2,339 | 2,398 | 2,872 | 4,382 |
| Plant Maintenance and Operation | 7,960 | 7,957 | 8,387 | 9,143 |
| General Administration, General Institutional | 8,616 | 9,409 | 10,044 | 13,650 |
| Student Services | 2,722 | 2,850 | 3,045 | 3,813 |
| Sponsored Research | 2,762 | 2,660 | 2,535 | 2,119 |
| Separately Budgeted Research | | | | |
| Other Educational and General 9, 10, 11 | 2,175 | 2,837 | 2,964 | 3,639 |
| B. Student Aid Expenditures | 7,176 | 6,972 | 6,811 | 6,100 |
| C. Major Public Service Program Expenditures | | | | |
| D. Auxiliary Enterprise Expenditures (total) | 12,031 | 13,087 | 15,243 | 24,600 |
| Housing | 3,079 | 3,538 | 5,421 | 24,730 |
| Food Service | 3,719 | 4,095 | 4,116 | 5,062 |
| Other Auxiliary | 5,233 | 5,454 | 5,706 | 6,783 |
| OPERATING RESULT III - IV (thousands) | - 2,439 | 3,292 | 3,651 | 17,200 |
| V. PLANT AND INDEBTEDNESS | | | | |
| Plant Expenditures (End of period)(thousands) | 10,571 | 24,273 | 5,542 | 5,315 |
| Indebtedness (End of period) | 35,586 | 48,459 | 51,295 | 49,557 |
| Increase in Indebtedness | | 2,873 | 2,836 | 1,738 |
| Debt Service (End of period) | 2,371 | 3,809 | 3,940 | 3,863 |
| Increase in Debt Service | | 1,438 | 131 | 77 |
| Debt Service Per Student | 77.02 | 118.74 | 117.52 | 97.17 |
| Debt Service as Per Cent of Operating Expense | 3.3 | 5.1 | 4.9 | 3.7 |

| | 1969-70 | 1970-71 | 1971-72 | 1975-76 |
|--|---------|---------|---------|---------|
| I-II. ENROLLMENT AND FACULTY | | | | |
| FTEE | 29,151 | 28,557 | 28,696 | 27,903 |
| Weighted FTEE | 39,324 | 39,001 | 38,788 | 38,553 |
| Full-time Equivalent Teaching Faculty | 4,544 | 4,643 | 4,542 | 4,534 |
| Weighted FTEE/Teaching Faculty Ratio | 8.7 | 8.4 | 8.5 | 8.5 |
| III. OPERATING REVENUES (thousands)(total) | 244,266 | 249,536 | 269,037 | 326,691 |
| A. Educational and General Revenue (total) | 170,971 | 168,957 | 182,694 | 210,067 |
| Tuition and Fees | 53,128 | 57,545 | 63,972 | 92,745 |
| Endowment Income | 14,328 | 15,462 | 14,322 | 14,298 |
| Private Gifts and Grants | 7,952 | 9,464 | 9,069 | 12,065 |
| State Maintenance | 12,238 | 12,100 | 13,031 | 15,305 |
| Sponsored Research | 49,529 | 41,250 | 44,286 | 34,064 |
| Separately Budgeted Research | 0 | 0 | 0 | |
| Other Educational and General | 33,796 | 33,136 | 38,014 | 48,644 |
| B. Student Aid Revenue | 9,431 | 9,231 | 9,385 | 9,300 |
| C. Major Public Service Program Revenue | 47,490 | 53,331 | 53,072 | 66,750 |
| D. Auxiliary Enterprise Revenue (total) | 16,374 | 18,017 | 23,886 | 51,700 |
| Housing | 5,032 | 4,870 | 10,564 | 39,257 |
| Food Service | 4,726 | 5,508 | 1,020 | 5,735 |
| Other Auxiliary | 6,616 | 7,639 | 3,302 | 13,091 |
| IV. OPERATING EXPENDITURES (thousands)(total) | 250,816 | 254,446 | 273,584 | 326,005 |
| A. Educational and General Expenditures (total) | 165,169 | 161,693 | 172,404 | 188,378 |
| Instruction-Salaries | 39,129 | 40,695 | 42,381 | 49,713 |
| Instruction-Other | 29,544 | 15,874 | 17,425 | 2,635 |
| Extension and Public Service | 183 | 169 | 222 | 345 |
| Libraries | 4,725 | 5,148 | 5,713 | 8,353 |
| Plant Maintenance and Operation | 12,330 | 13,149 | 14,143 | 14,665 |
| General Administration, General Institutional | 8,230 | 8,870 | 9,646 | 13,244 |
| Student Services | 1,128 | 1,230 | 1,400 | 2,158 |
| Sponsored Research | 49,125 | 43,824 | 45,842 | 39,360 |
| Separately Budgeted Research | 0 | 0 | 7 | |
| Other Educational and General 9, 10, 11 | 20,775 | 32,724 | 35,625 | 112,074 |
| B. Student Aid Expenditures | 18,561 | 19,198 | 19,870 | 22,800 |
| C. Major Public Service Program Expenditures | 48,828 | 53,548 | 54,359 | 64,014 |
| D. Auxiliary Enterprise Expenditures (total) | 18,258 | 20,007 | 26,951 | 27,199 |
| Housing | 5,111 | 5,528 | 10,408 | 12,004 |
| Food Service | 4,986 | 4,623 | 5,926 | 5,970 |
| Other Auxiliary | 8,161 | 9,856 | 10,617 | 10,745 |
| OPERATING RESULT III - IV (thousands) | - 5,540 | - 4,810 | - 4,547 | 680 |
| V. PLANT AND INDEBTEDNESS | | | | |
| Plant Expenditures (End of period)(thousands) | 40,369 | 32,812 | 78,973 | 82,347 |
| Indebtedness (End of period) | 47,398 | 56,880 | 119,735 | 144,105 |
| Increase in Indebtedness | | 9,482 | 62,855 | 24,370 |
| Debt Service (End of period) | 489 | 502 | 3,943 | 5,649 |
| Increase in Debt Service | | 13 | 3,441 | 1,706 |
| Debt Service Per Student | 16.77 | 17.58 | 137.41 | 202.45 |
| Debt Service as Per Cent of Operating Expense | 0.2 | 0.2 | 1.4 | 1.7 |

GROUP A-F

| | 1969-70 | 1970-71 | 1971-72 | 1972-73 |
|--|----------------|----------------|----------------|----------------|
| I-II. ENROLLMENT AND FACULTY | | | | |
| FTEE | 137,382 | 140,108 | 143,692 | 157,129 |
| Weighted FTEE | 153,423 | 157,256 | 161,381 | 178,532 |
| Full-time Equivalent Teaching Faculty | 12,029 | 12,339 | 12,251 | 13,709 |
| Weighted FTEE/Teaching Faculty Ratio | 12.8 | 12.7 | 13.2 | 13.2 |
| III. OPERATING REVENUES (thousands)(total) | 512,501 | 547,214 | 588,472 | 795,900 |
| A. Educational and General Revenue (total) | 369,459 | 391,155 | 421,349 | 37,207 |
| Tuition and Fees | 207,233 | 230,835 | 254,085 | 381,197 |
| Endowment Income | 24,783 | 26,616 | 25,356 | 26,078 |
| Private Gifts and Grants | 23,220 | 27,007 | 25,039 | 29,541 |
| State Maintenance | 15,174 | 15,036 | 16,183 | 17,462 |
| Sponsored Research | 54,061 | 46,096 | 49,267 | 39,791 |
| Separately Budgeted Research | 102 | 0 | 5 | 0 |
| Other Educational and General | 44,886 | 45,565 | 51,414 | 67,823 |
| B. Student Aid Revenue | 19,918 | 21,584 | 22,826 | 31,400 |
| C. Major Public Service Program Revenue | 47,625 | 53,438 | 53,322 | 67,292 |
| D. Auxiliary Enterprise Revenue (total) | 75,499 | 81,037 | 90,975 | 138,600 |
| Housing | 24,622 | 25,816 | 33,444 | 63,078 |
| Food Service | 29,287 | 31,426 | 32,607 | 42,656 |
| Other Auxiliary | 21,590 | 23,795 | 24,924 | 35,732 |
| IV. OPERATING EXPENDITURES (thousands)(total) | 517,085 | 543,467 | 582,966 | 749,400 |
| A. Educational and General Expenditures (total) | 349,894 | 363,967 | 388,977 | 506,360 |
| Instruction-Salaries | 111,056 | 110,377 | 125,769 | 171,667 |
| Instruction-Other | 45,457 | 32,546 | 35,651 | 20,445 |
| Extension and Public Service | 1,499 | 1,603 | 1,546 | 1,674 |
| Libraries | 14,535 | 15,830 | 17,235 | 26,371 |
| Plant Maintenance and Operation | 36,765 | 40,247 | 42,936 | 63,292 |
| General Administration, General Institutional | 43,621 | 47,288 | 51,422 | 78,461 |
| Student Services | 12,769 | 14,154 | 14,609 | 20,510 |
| Sponsored Research | 53,444 | 48,283 | 50,017 | 43,296 |
| Separately Budgeted Research | 439 | 359 | 294 | 157 |
| Other Educational and General 9, 10, 11 | 29,351 | 43,485 | 49,491 | 57,573 |
| B. Student Aid Expenditures | 42,584 | 44,462 | 46,183 | 55,100 |
| C. Major Public Service Program Expenditures | 49,073 | 53,716 | 54,623 | 74,654 |
| D. Auxiliary Enterprise Expenditures (total) | 75,585 | 81,322 | 93,183 | 137,300 |
| Housing | 24,242 | 26,506 | 34,523 | 81,382 |
| Food Service | 26,794 | 27,471 | 29,790 | 38,897 |
| Other Auxiliary | 24,549 | 27,345 | 28,860 | 39,937 |
| OPERATING RESULT III - IV (thousands) | - 4,584 | 3,747 | 5,506 | 46,500 |
| V. PLANT AND INDEBTEDNESS | | | | |
| Plant Expenditures (End of period)(thousands) | 109,071 | 106,293 | 116,240 | 113,376 |
| Indebtedness (End of period) | 258,316 | 293,060 | 366,153 | 383,701 |
| Increase in Indebtedness | | 34,744 | 73,093 | 21,024 |
| Debt Service (End of period) | 12,365 | 14,767 | 19,738 | 21,013 |
| Increase in Debt Service | | 2,402 | 4,971 | 993 |
| Debt Service Per Student | 90.00 | 105.40 | 137.36 | 136.42 |
| Debt Service as Per Cent of Operating Expense | 2.4 | 2.7 | 3.4 | 3.5 |

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