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ABSTRACT

Higher Education price in index data for fiscal years 1971 through 1975 are presented. The supplement is published yearly shortly after the fiscal year to which the latest data refer, and the index values refer to the entire year, not any specific month of the year. The basic study, "Higher Education Prices and Price Indexes," presents complete descriptions of the indexes together with index values and price data for fiscal years 1961 through 1974. It includes a discussion of index number theory and computation, the uses and limitations of price indexes, and the effects of inflation on real expenditures for current operations, research and development, and physical plant additions. This supplement includes brief descriptions of several indexes: Higher Education Price Index, Research and Development Price Index, Boeckh Construction Index, Capital Equipment Index, Construction and Equipment Index, and student charges data. Eight tables are also included, along with an appendix of price indexes by institutional type and control. (LBH)

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# Higher Education Prices and Price Indexes

1975 Supplement

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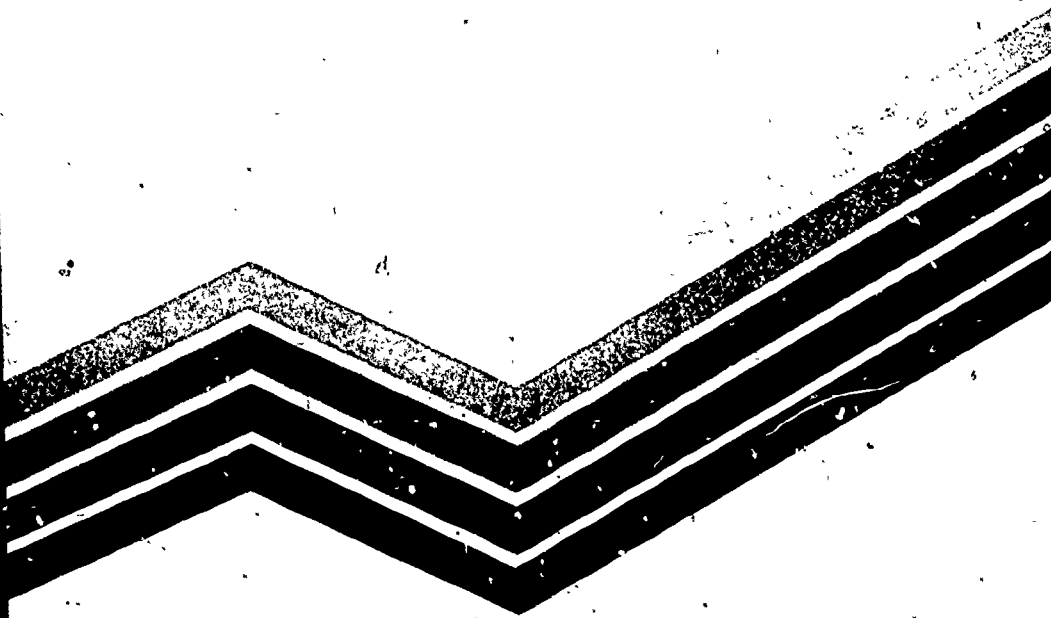
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# Higher Education Prices and Price Indexes

1975 Supplement

by  
D. Kent Halstead



U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE  
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## INTRODUCTION

### Publication Information

This *1975 Supplement* presents higher education price index data for fiscal years 1971 through 1975. The supplement is published yearly shortly after the fiscal year to which the latest data refer. The index values refer to the entire year, not any specific month of the year.

The basic study, *Higher Education Prices and Price Indexes*, presents complete descriptions of the indexes together with index values and price data for fiscal years 1961 through 1974. The study includes a discussion of index number theory and computation, explains the uses and limitations of price indexes, and describes the effects of inflation on "real expenditures" for current operations, research and development, and physical plant additions for 1961-74. Users of higher education price indexes should consult this study for the complete technology of index theory and design, and for earlier price series listings.

### Brief Explanation of Price Indexes and Their Use

A price index series measures the effects of price *change*, and price change only, on a fixed group of items. The procedure in calculating the index is to measure price change by repricing each year and comparing aggregate costs of the goods and

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D. Kent Halstead, *Higher Education Prices and Price Indexes*, U.S. Department of Health, Education, and Welfare, Office of Education, U.S. Government Printing Office, 1975. Order by Stock Number 017-080-01500-5 for 65 cents from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

services bought in the base period. The *amount* and *quality* of the selected commodities that comprise the market basket being indexed must remain *constant* so that only the effects of price changes are reflected. Under these restrictive conditions, the change in price index values from year to year may be interpreted as the change in dollars required to offset the effects of inflation in buying the same kinds and amounts of goods and services previously purchased.

The indexes reported here measure price changes from a designated reference date—1967—which equals 100.0. An index value of 115.0, for example, represents a 15 percent increase over 1967 values. This change can also be expressed in dollars. The price of \$100 dollars worth of goods and services purchased in 1967 has risen to \$115. Movements of the index from one year to another are usually expressed as percent changes by dividing the difference in index values from one year to the next by the earlier year's index value. Thus an increase in index values from 125.6 to 134.4 would be a yearly increase of  $(134.4 - 125.6) / 125.6 = 7.0\%$ .

A price index compiled and published regularly can serve the following uses:

(1) Index values may be *projected* into the future to estimate the degree of change in expenditure levels that will be necessitated by any anticipated price changes. If price increases are expected, the projected index values are used to "inflate" expected "real resource" needs to equal actual dollar future funding requirements.

(2) Past *expenditures* may be compared with movements in a price index to ascertain whether spending has kept pace with price level changes. Adjusting expenditures by an appropriate price index to convert "actual" or "current" dollars to "constant" dollars permits comparison over time of the real purchasing power of funding levels.

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For the Higher Education Price Index (HEPI) and the Research and Development Price Index (R&DPI), the base period at which time the composition of the market basket of goods and services was determined is fiscal year 1972. (See table A).



(3) Similar to (2), dollar *incomes* may be "deflated" by a price index to identify trends in the level of real purchasing power of funding by various sources.

(4) Price indexes may be used to provide automatic "inflation adjustment" of various administrative and contractual transactions. The price charged a particular service, for example, may be "tied" to input prices or the "cost of labor" as measured by an appropriate price index.

## BRIEF DESCRIPTION OF INDEXES

### Higher Education Price Index

The Higher Education Price Index (HEPI) (table 1) measures average *changes* in prices of goods and services purchased by colleges and universities through current-fund educational and general expenditures. Educational and general operations include the functions of instruction and departmental research, extension, and public service, educational programs such as workshops and instructional institutes supported by sponsors outside the institution, student services, general administration and expenses, staff benefits, libraries, and operation and maintenance of the physical plant. Sponsored research and auxiliary enterprises are *not* priced by the HEPI.

The HEPI is based on the prices (or salaries) of faculty (table 4), administrators, and other professional service personnel (table 3); clerical, technical, service, and other nonprofessional personnel (table 5); and contracted services (table 6) such as data processing, communication, and transportation; supplies and materials; equipment; books and periodicals; and utilities. These represent the items purchased for current operations by colleges and universities. Prices for these items are obtained from salary surveys conducted by various national higher education associations, the Bureau of Labor Statistics, and the National Center for Educational Statistics; and from components of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) published by the U.S. Department of Labor, Bureau of Labor Statistics.

The quantities of these goods and services have been kept constant based on the 1971-72 buying pattern of colleges and universities. The weights assigned the various items priced, which represent their relative importance in the current-fund

educational and general budget, are estimated national averages (table A). Variance in spending patterns of individual institutions from these national averages reduces only slightly the applicability of the HEPI to any given institutional situation. Modest differences in the weights attached to expenditure categories have little effect on overall index values. This is because the HEPI is dominated by the trend in faculty salaries and similar salary trends for other personnel hired by institutions, which absorbs or diminishes the effects of price changes in other items purchased in small quantities. (This topic is further discussed in the appendix which also presents separate price data and indexes by institutional type and control.)<sup>9</sup>

TABLE A

Composition by object category of current-fund educational and general expenditures in colleges and universities, and current direct expenditures for sponsored research and development in universities, estimate for fiscal year 1972

Category	Percent of total expenditures	
	Educational and general <sup>1</sup>	Sponsored research
<b>PERSONNEL COMPENSATION</b>		
1.0 Professional salaries . . . . .	58.0	45.7
1.1 Faculty . . . . .	42.2	17.3
1.2 Research associates . . . . .	0	15.1
1.3 Graduate assistants . . . . .	2.7	10.2
1.4 Other professional, non-doctoral . . . . .	0	3.1
1.5 Extension and public service personnel . . . . .	2.6	0
1.6 Administration and institutional services personnel . . . . .	8.5	0
1.7 Library personnel . . . . .	2.0	0

See footnote at end of table.

TABLE A—Continued

Category	Percent of total expenditures	
	Educational and general <sup>1</sup>	Sponsored research
2.0 Nonprofessional wages and salaries	15.0	14.3
2.1 Technicians	1.5	7.0
2.2 Craftsmen	1.0	2.4
2.3 Clerical	5.4	2.4
2.4 Students	2.0	2.5
2.5 Service	4.0	0
2.6 Operators and laborers	1.1	0
3.0 Fringe benefits	9.0	7.0
CONTRACTED SERVICES, SUPPLIES, AND EQUIPMENT		
4.0 Services	7.3	16.0
4.1 Data processing and equipment rental	1.4	2.9
4.2 Communication	1.5	.8
4.3 Transportation	.7	2.0
4.4 Printing and duplication	.5	.8
4.5 Miscellaneous services	3.2	8.4
4.6 Consultants and other professional	0	1.1
5.0 Supplies and materials	3.5	7.0
6.0 Equipment	2.5	10.0
7.0 Books and periodicals	1.7	0
8.0 Utilities	3.0	0
Total	100.0	100.0

<sup>1</sup> Excluding expenditures for sponsored research.

Source: See reference cited in text footnote 1, pp. 40-44.

### Research and Development Price Index

The Research and Development Price Index (R&DPI), reported in table 2, measures changes in prices of goods and services bought by universities through current direct expenditures for sponsored research. Indirect costs or overhead charges apportioned to research (e.g., expenditures for general administration, operation and maintenance of the physical

plant, etc.) are excluded from the price index which is designed specifically to price only immediate research activities. Also excluded are major expenditures for expensive scientific equipment and furnishings (generally charged as an indirect cost), and separately budgeted investment in physical plant and permanent fixed equipment.

The direct expenditures for sponsored research priced by the R&DPI are listed in table A, and, as with the HEPI, consist of salaries and wages for professional and nonprofessional personnel, fringe benefits, contracted services, supplies and materials, and equipment (tables 3-6). "Research associates" and "other professional, nondoctoral" are additional occupational categories priced; also added is a "consultants and other professional" contracted services category. The table A weightings show that sponsored research requires nearly twice the relative amount of contracted services, supplies and materials, and equipment as does college and university current educational and general operations.

### **Boeckh Construction Index**

There is no price index specifically designed to price new construction of college and university physical facilities.<sup>3</sup> However, the Boeckh Division of the American Appraisal Company computes an index for apartments, hotels, and office buildings in the \$200,000 to \$5 million cost range which does appear applicable to the academic and general supporting facilities on college campuses:

The Boeckh Index (table 7) is a fixed-weight input index of wage rates and building material prices weighted together in

<sup>3</sup> About 30 percent of the floor area of campus buildings is devoted to classrooms, laboratories, and special educational uses. Offices and study areas take up 20 percent of building space as do general and supporting facilities such as museums, auditoriums, theaters, garages, and hospitals. Residential facilities account for 30 percent of the floor area.

Source. U.S. Department of Health, Education, and Welfare, Office of Education, *Inventory of Physical Facilities in Institutions of Higher Education Fall 1969*, U.S. Government Printing Office, Washington, D.C. 1974.

accordance with their importance to the cost of a unit of construction in the 1967 base period. The index covers the structural portion of buildings and all plumbing, heating, lighting, and elevators. The index measures construction with *fixed specifications*, the bill of 55 material items being extremely thorough and complete. Wage rates are based on detailed job specifications for 19 construction occupations. Material and labor costs are computed monthly based on actual transaction prices paid. The material-labor weights, constant since 1967, are material, 51.7 percent; labor, including contractor's overhead, profit, and contingency funding, 48.3 percent.

### Capital Equipment Index

The Capital Equipment Index (table 7) prices equipment purchased through investment of plant funds which generally consists of all types of *movable* property of a permanent nature, much of which is purchased for immediate installation in new buildings. *Permanently affixed* furniture, machinery, appurtenances, and appliances constructed as part of the building are not classified equipment. Current fund, as opposed to plant fund, expenditures for equipment usually involve *small* items added to the equipment inventory subsequent and apart from the building construction program.

The general categories of capital equipment purchased by colleges and universities are office and classroom furniture, office machines and equipment, laboratory equipment, and general purpose machinery and equipment. More detailed item identification and relative weightings are currently not available. The four broad categories have therefore been priced by suitable proxy price series for major components of the Wholesale Price Index (WPI). These WPI components include many equipment items of the type purchased by colleges and universities.

### Construction and Equipment Index

The index for investment of plant funds (table 7) is a composite of the new construction and equipment indexes.

Land purchases by colleges and universities represent less than 4 percent of plant fund new investment and cannot be priced for index purposes. Through 1971-72, plant fund expenditures were proportioned between those for new building construction and for equipment at a remarkably consistent 79 percent--21 percent split. Beginning in 1972-73, and "linked" to the earlier price series in 1971-72, index weights are construction, 74 percent; and equipment, 26 percent. These new index weights (79:21 to 74:26) are based on the extent to which a changed budget mix represents an actual increase in the *quantity* of equipment purchased relative to the *quantity* of new buildings constructed. Evidently beginning in 1972-73, colleges and universities felt compelled by the skyrocketing costs of new construction to build fewer facilities and to better furnish what was built with more equipment.

### Student Charges Data

Price series for resident undergraduate tuition and for room and board charges are presented for public and private universities, 4-year colleges, and 2-year colleges (table 8). Prices are based on charges at the *same* institutions weighted with *fixed* 1967 enrollments. Composite charges for all public and all private institutions have been computed—weighted according to the proportional enrollment of each type of institution. The sampling procedure employed is outlined in the table footnotes.

### PRICE TRENDS

Trends in prices affecting colleges and universities (and the Consumer Price Index for comparison purposes) are presented in table B and figure A. The table shows index values based on reference year 1971 equals 100.0, and also percent changes in index values from the preceding year to the present year. Not since 1966-67 have yearly price increases been as low for higher education as they were in 1972 and 1973. This pause in inflation—evidently a calm before the storm—ushered in

**TABLE B**

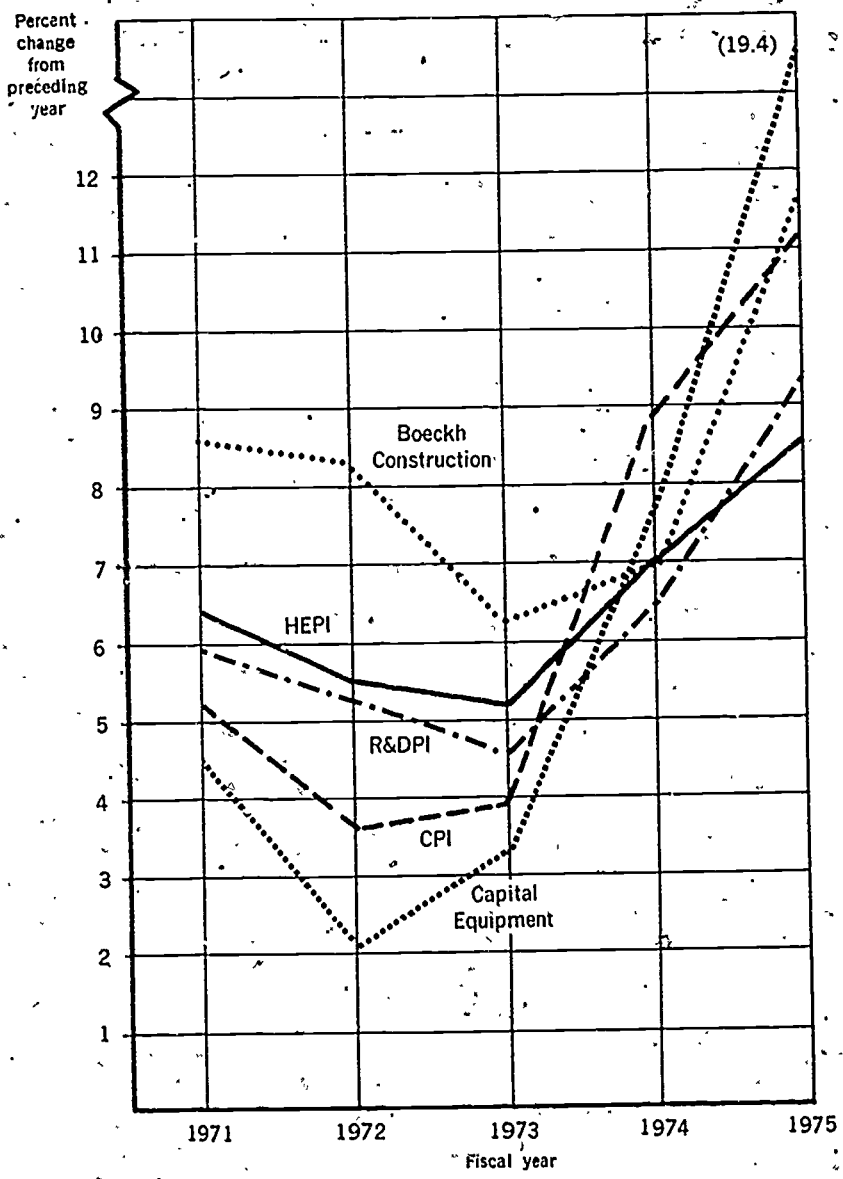
Higher education price indexes based on reference year 1971 = 100, and annual percent changes, fiscal years 1971-75

1971=100 [Percent changes from preceding year shown in parentheses]

Fiscal year	HEPI	R&DPI	CPI	Boeckh	Capital Equipment
1971	100.0 (6.4)	100.0 (5.9)	100.0 (5.2)	100.0 (8.6)	100.0 (4.6)
1972	105.5 (5.5)	105.3 (5.3)	103.6 (3.6)	108.2 (8.2)	102.1 (2.1)
1973	111.0 (5.2)	110.1 (4.6)	107.7 (3.9)	114.9 (6.2)	105.2 (3.1)
1974	118.7 (7.0)	117.3 (6.5)	117.3 (8.9)	122.7 (6.8)	113.4 (7.8)
1975	129.0 (8.6)	128.3 (9.4)	130.4 (11.2)	137.0 (11.6)	135.4 (19.4)



Figure A.—Higher education price indexes and CPI, percent changes from preceding year, fiscal years 1971-75.



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the greatest period of inflation to hit colleges and universities in the last decade and a half. Figure A clearly shows the dramatic 2-year (FY 1973 to 1974 to 1975) rise in prices for current operations (HEPI), research and development (R&DPI), new construction (Boeckh), and capital equipment.

### Current Operations

Documented by HEPI values since 1961, colleges and universities have consistently faced greater inflation in the price of their purchases than consumers in general. Now the situation has reversed with the price of institutional current operations increasing 7.0 and 8.6 percent for FY 1973 to 1974 to 1975, while the average wage earner confronted an 8.9 and 11.2 percent increase in the Consumer Price Index (CPI). With less current inflation in higher education, students should find college a better buy than other purchases; i.e., tuition increases are less than price increases for many other goods and services. While formerly tuition rose faster than the CPI, now tuition increases are less. Last year tuition charges rose 6.5 percent in both the public and the private sectors. This year tuition increased (from FY 1975 to 1976) 7.0 percent at public and 8.9 percent at private institutions. Increases both years were less than corresponding increases in the CPI.

Why the reversal? Education is a labor intensive industry—it spends more for employee services than it does for products and materials. Here-to-fore colleges and universities were able to increase faculty salaries to offset rises in the cost of living. Now, institutions, strapped for funds, have been unable to continue the pace. This is especially true in the light of recent large jumps in consumer prices which were all but impossible to match. Thus, growth in faculty salaries as well as wage increases in many other occupations are lagging behind increases in commodity prices. And since personnel services is a much

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<sup>1</sup> This phenomenon and its implications to inflation in higher education were earlier recognized and discussed by Richard Wynn. See G. Richard Wynn, "Inflation in the Higher Education Industry," *Professional File*, Vol. 6, No. 1, January 1975, National Association of College and University Business Officers, Washington, D.C.

larger component of the college and university budget than it is for the general consumer (who also must buy proportionally more food which is increasingly higher priced),<sup>5</sup> inflation is less for institutions than for the average wage earner.

That education is suffering less from inflation than the typical wage earner is hardly good news. This year price increases for colleges and universities were greater than at any other time in the past 14 years—a whopping 8.6 percent for FY 1975 over FY 1974. (The previous high was 7.0 percent between 1973 and 1974.)

What accounts for such a large increase? Certainly not *professional salaries* which, for reasons previously explained, increased a moderate 5.7 percent. The cause lies not in the area of personnel compensation, which through 1973 set the pace for HEPI increases, but rather in the other major purchase component—contracted services, supplies, and equipment. Within this broad category, as shown in table C, the two chief culprits were the near runaway price increases in *utilities* (heating oil, up 51.9 percent; natural gas, up 28.8 percent; and commercial electrical power, up 21.3 percent) and in almost all *supplies and materials* (the worst price increases occurring in industrial chemicals, up 65.8 percent; drugs and pharmaceuticals, up 39.1 percent; gasoline, oil, and lubricants, up 36.1 percent; and various operation and maintenance supplies, up 24.3 percent).

Price increases for *equipment* purchased through current fund expenditures (up 18.0 percent) and for *books and periodicals* (up an estimated 16.0 percent) also contributed to inflation. In comparison, the 8.8 percent price increase in contracted *services* was relatively modest, yet this was nearly double the price increase experienced during the previous year (the FY 1973 to 1974 price increase for services was 4.7 percent).

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<sup>5</sup> Payment for personnel services amounts to 82 percent of the college and university budget priced by the HEPI, whereas the service component of the CPI is 36.5 percent, with food, 24.8 percent, and other commodities, 38.6 percent, constituting the remainder.

TABLE C

Higher Education Price Index and major component subindexes, percent changes from preceding year, fiscal years 1971-75

[Number code in parentheses identifies category as outlined in table A]

Fiscal year	Personnel compensation				Contracted services, supplies, and equipment				Higher Education Price Index <sup>3</sup>	
	Professional salaries (1.0)	Nonprofessional wages and salaries (2.0)	Fringe benefits (3.0)	Total	Services (4.0)	Supplies and materials (5.0)	Equipment (6.0)	Books and periodicals (7.0)		Utilities (8.0)
1971.....	5.0	7.8	10.8	6.2	5.4	3.7	4.0	16.3	10.5	6.9
1972.....	3.9	7.3	11.2	5.5	6.0	2.1	3.7	7.4	6.8	5.3
1973.....	4.5	6.0	9.7	5.5	4.4	3.3	3.1	2.6	5.4	4.0
1974.....	5.1	6.3	12.3	6.4	4.7	13.2	6.1	8.0	22.7	9.6
1975.....	5.7	8.0	8.6	6.6	8.8	24.8	18.0	est. 16.0	28.3	17.2

<sup>1</sup> Personnel compensation total index based on weighted average as follows: professional salaries, 70.7 percent; nonprofessional wages and salaries, 18.3 percent; and fringe benefits, 11.0 percent.

<sup>2</sup> Contracted services, supplies, and equipment total index based on weighted average as follows: services, 40.56 percent; supplies and materials, 19.44 percent; equipment, 13.89 percent; books and periodicals, 9.44 percent; and utilities, 16.67 percent.

<sup>3</sup> HEPI based on weighted average as follows: personnel compensation, 79.3 percent; contracted services, supplies, and equipment, 20.7 percent. [See reference cited in text footnote 1, pp. 23-25, for corrections made to table A weights (82.0 and 18.0 percent) to derive adjusted values used.]

## Research and Development

Since both the Higher Education Price Index and the Research and Development Price Index are constructed using many common price series, the previous commentary regarding price movements for current operations applies also to research and development. However, it is interesting to note that at no time in the previous 13 years has the annual rate of increase of the R&DPI exceeded that of the HEPI. Inflation has always affected research *less* than current operations because research requires heavier investment in contracted services, supplies and materials, and equipment, items heretofore less subject to price increases than salaries and wages. Now, due to last year's extreme price increases in these hardware items, inflation in research has exceeded that of current operations (9.4 percent for FY 1975 over 1974 versus 8.6 percent). The parallel trend in yearly rates of increase between the HEPI and R&DPI and the reversal of positions in 1975 are clearly shown in figure A.

## New Construction and Capital Equipment

Since 1967, new construction has led in price increases for all major purchases by colleges and universities. For the 1967-75 period, construction prices rose at a compound annual rate of 8.0 percent. Last year, led by large increases in the price of labor and steel, the cost of new buildings rose 11.6 percent for an all-time high. Administrators should be fully aware that at current inflation rates, every year's delay in new construction adds at least 10 percent to building costs.

Beginning in 1974 a new leader, capital equipment, emerged as the chief source of price inflation facing colleges and universities. The nearly unbelievable 19.4 percent increase in equipment purchased from plant funds was due primarily to increases in laboratory type equipment (up 26.5 percent), and commercial furniture (up 20.1 percent) which together constitute an estimated 70 percent of new investment in capital equipment.

## Student Consumer Prices

Student charges, even national aggregated data, show considerable variation in year-to-year changes. For example, tuition at public 2-year colleges increased 5.6 percent between FY 1974 and 1975, and 12.5 percent from 1975 to 1976. These inconsistencies may be due in part to efforts by institutions to delay or "hold-the-line" on student charges until forced by higher costs to jump prices in steps larger than might otherwise have occurred under a more uniform progression of increases. Whatever their cause, it would be erroneous to draw serious inference from the direction of short-term yearly adjustments in student charges. Real trends are more likely to be recognized from rates of change compounded over an extended time period. Table D presents such rates of change for tuition and for room and board for the 7-year period FY 1967 to 1974 and for the more recent 2-year period FY 1974 to 1976.

Within the private sector, the trend in tuition charges has been a remarkably consistent increase of 7 to 8 percent yearly (compounded annually) for all three types of institutions for both the 1967-74 and the 1974-76 periods. The price of educational inputs purchased by private institutions during the 1966-75 time frame, as measured by the Higher Education Price Index, increased 6.4 percent annually. Thus at least one source of college and university income—tuition paid by students—more than maintained its real support level during a period of rapidly rising institutional costs.

Tuition trends in the public sector are more varied. At public 4-year and 2-year colleges, earlier modest increases averaging 5.6 and 4.3 percent yearly (compounded annually) for the 1967-74 period have been replaced by more substantial 8.6 and 9.0 percent increases in 1975 and 1976. Even so, last year's changes in absolute terms were not great, \$43 at 4-year and \$42 at 2-year colleges. Tuition at public universities appears to be leveling, with increases averaging only 4.5 percent in the last 2 years. At public institutions, universities have recently charged between 20 and 30 percent higher tuition than 4-year colleges, where in turn tuition averages 40 percent higher than at 2-year colleges.

**TABLE D**

Average annual rates of change (compounded) in student tuition and room and board charges, by type and control of institution, fiscal years 1967-74 and 1974-76

Fiscal years	Public institutions			Private institutions		
	Univer- sities	4-year colleges	2-year colleges	Univer- sities	4-year colleges	2-year colleges
<b>TUITION</b>						
1967-74	7.7	5.6	4.3	7.0	7.8	7.5
1974-76	4.5	8.6	9.0	7.0	8.2	7.0
<b>ROOM AND BOARD</b>						
1967-74	4.3	4.2		3.9	4.0	3.5
1974-76	8.4	11.0		8.8	7.0	9.1

Note.—For comparison purposes, during 1967-74 the HEPI increased at an annual compound rate of 6.2 percent and the CPI increased at an annual rate of 5.1 percent. From FY 1974 to 1975 the rates were 8.6 and 11.2 percent, respectively.

Source: Table 8.

One common trend characterized room and board charges in both sectors— a modest 3.5 to 4.3 percent yearly increase from 1967-74 followed by larger increases averaging from 7.0 to 11.0 percent in 1975 and 1976. It is interesting to note that during the 1967-74 period the Consumer Price Index for food at home increased at an annual compound rate of 6.3 percent. Wholesale Price Index utility prices increased 6.8 percent yearly. The CPI home ownership component (mortgage interest rates, property taxes, property insurance premiums, and maintenance and repairs) increased 6.6 percent yearly. These rates reflect the magnitude of price increases colleges and universities are likely to have experienced in auxiliary enterprise operations during the 1967-74 period.

Evidently during this time, institutions did all that was possible to hold student charges down in the face of rising costs. The recent jump in room and board charges probably signals the inability of institutions to further improve efficiency in housing and food services, and the need now to pass on higher costs (particularly higher utility prices up 57 percent in the last 2 years) directly to student consumers.



TABLE 1

Higher Education Price Index and major component subindexes, fiscal years 1971-75

1967 = 100

[Number code in parentheses identifies category as outlined in table A]

Fiscal year	Personnel compensation				Contracted services, supplies, and equipment						Higher Education Price Index <sup>3</sup>	Annual percent increase over previous year
	Professional salaries (1.0)	Nonprofessional wages and salaries (2.0)	Fringe benefits (3.0)	Total <sup>1</sup>	Services (4.0)	Supplies and materials (5.0)	Equipment (6.0)	Books and periodicals (7.0)	Utilities (8.0)	Total <sup>2</sup>		
1971	127.5	126.9	162.0	131.2	119.3	110.3 <sup>*</sup>	115.1	152.3	114.6	119.3	128.7	6.4
1972	132.5	136.1	180.2	138.4	126.4	112.6	119.4	163.6	122.4	125.6	135.8	5.5
1973	138.4	144.3	197.7	146.0	131.9	116.3	123.1	167.8	129.0	130.6	142.8	5.2
1974	145.4	153.4	222.0	155.3	138.1	131.6	130.6	181.3	158.3	143.2	152.8	7.0
1975	153.7	165.7	241.0	165.5	150.2	164.2	154.1	est. 210.3	202.9	167.9	166.0	-8.6

<sup>1</sup> Personnel compensation total index based on weighted average as follows: professional salaries, 70.7 percent, nonprofessional wages and salaries, 18.3 percent and fringe benefits, 11.0 percent.

<sup>2</sup> Contracted services, supplies, and equipment total index based on weighted average as follows: services, 40.56 percent, supplies and materials, 19.44 percent; equipment, 13.89 percent; books and

periodicals, 9.44 percent, and utilities, 16.67 percent.

<sup>3</sup> HEPI based on weighted average as follows: personnel compensation, 79.3 percent, contracted services, supplies, and equipment, 20.7 percent [See reference cited in text footnote 1, pp 23-25, for corrections made to Table A weights (82.0 and 18.0 percent) to derive adjusted values used.]

TABLE 2

Research and Development Price Index and major component subindexes, fiscal years 1971-75

1967 100

[Number code in parentheses identifies category as outlined in table A]

Fiscal year	Personnel compensation				Contracted services, supplies, and equipment				R&D Price Index <sup>3</sup>	Annual percent increase over previous year
	Professional salaries (1.0)	Nonprofessional wages and salaries (2.0)	Fringe benefits (3.0)	Total <sup>1</sup>	Services (4.0)	Supplies and materials (5.0)	Equipment (6.0)	Total <sup>2</sup>		
1971	125.9	126.4	162.0	129.8	124.5	110.1	116.9	119.1	126.3	5.9
1972	131.6	134.7	180.2	137.3	131.3	112.6	121.4	124.3	133.0	5.3
1973	136.1	142.5	197.7	143.9	137.4	117.3	125.0	129.4	139.1	4.6
1974	142.4	151.7	222.0	152.7	144.4	134.0	133.2	138.8	148.1	6.5
1975	150.6	164.6	241.0	163.0	154.4	168.8	163.2	160.1	162.0	9.4

<sup>1</sup> Personnel compensation total index based on weighted average as follows: professional salaries, 68.21 percent; nonprofessional wages and salaries, 21.34 percent; and fringe benefits, 10.45 percent.

<sup>2</sup> Contracted services, supplies, and equipment total index based on weighted average as follows: services, 48.5 percent; supplies and materials, 21.2 percent; and equipment, 30.3 percent.

<sup>3</sup> R&D Price Index based on weighted average as follows: personnel compensation, 67.0 percent (professional salaries, 45.7 percent; nonprofessional wages and salaries, 14.3 percent; fringe benefits, 7.0 percent); contracted services, supplies, and equipment, 33.0 percent (services, 16.0 percent; supplies and material, 7.0 percent; and equipment, 10.0 percent.)

TABLE 3

Subindexes of salaries of professional personnel used for the HEPI and R&DPI, fiscal years 1971-75  
 1967 = 100 [Number code in parentheses identifies category as outlined in table A]

Fiscal year	HEPI faculty (1.1)	R&DPI faculty (uni- versity) (1.1)	Research asso- ciates (1.2)	Graduate assist- ants (1.3)	Other professional, nondoctoral			Exten- sion and public service per- sonnel (1.5)	Adminis- tration and insti- tutional services personnel (1.6)	Library personnel (1.7)	Professional salaries total	
					Chemists	Engi- neers	Total <sup>1</sup> (1.4)				HEPI <sup>2,3</sup> (1.0)	R&DPI <sup>3</sup> (1.0)
1971.....	127.2	126.1	125.8	125.8	125.0	124.8	124.9	127.2	est. 129.2	est. 128.5	127.5	125.9
1972....	131.7	130.6	132.4	132.4	131.4	131.3	131.4	131.7	135.8	135.1	132.5	131.6
1973....	137.4	134.8	136.8	136.8	136.3	138.0	137.0	137.4	est. 143.3	est. 142.2	138.4	136.1
1974....	144.4	141.2	142.8	142.8	146.0	145.5	145.8	144.4	150.8	149.4	145.4	142.4
1975....	152.3	148.6	151.0	151.0	160.7	157.7	159.2	152.3	est. 160.7	est. 159.3	153.7	150.6

<sup>1</sup> Other professional, nondoctoral total index based on equally weighted average of chemist and engineer salaries.

<sup>2</sup> HEPI professional salaries total index based on weighted average as follows: faculty, 72.76 percent; graduate assistants, 4.66 percent; extension and public service personnel, 4.48 percent; administration and institutional services personnel, 14.66 percent; and library personnel, 3.44 percent.

<sup>3</sup> R&DPI professional salaries total index based on weighted average as follows: faculty (university), 37.9 percent; research

associates, 33.0 percent, graduate assistants, 22.3 percent, and other professional, nondoctoral, 6.8 percent.

Sources: American Association of University Professors; U.S. Department of Commerce, Bureau of Labor Statistics; U.S. Department of Health, Education, and Welfare, Office of Education.

TABLE 4

Indexes and dollar amounts of faculty salaries and fringe benefits, by academic rank, fiscal years 1971-75

1967 = 100

[Number code in parentheses identifies category as outlined in table A]

Fiscal year	Professors		Associate professors		Assistant professors		Instructors		Faculty total index
	Amount	Index	Amount	Index	Amount	Index	Amount	Index	
SALARIES <sup>1</sup> —ALL INSTITUTIONS (HEPI 1.1)									
1971	\$18,314	127.2	\$13,792	127.4	\$11,347	126.9	\$9,084	127.5	127.2
1972	18,513	131.3	14,266	131.7	11,765	131.6	9,520	133.7	131.7
1973	19,751	137.1	14,887	137.5	12,289	137.4	9,873	138.6	137.4
1974	20,798	144.4	15,641	144.4	12,872	144.0	10,344	145.2	144.4
1975	21,870	151.9	16,495	152.3	13,578	151.9	11,005	154.5	152.3
SALARIES <sup>1</sup> —UNIVERSITIES <sup>3</sup> (R&DPI 1.1)									
1971	\$19,600	125.6	\$14,380	126.5	\$11,760	126.5	\$9,020	125.8	126.1
1972	20,250	129.7	14,920	131.2	12,200	131.2	9,490	132.4	130.6

1973	20,900	133.9	15,380	135.3	12,610	135.6	9,810	136.8	134.8
1974	21,900	140.3	16,130	141.9	13,190	141.8	10,240	142.8	141.2
1975	23,100	148.0	16,950	149.1	13,830	148.7	10,830	151.0	148.6

FRINGE BENEFITS<sup>3</sup>—ALL INSTITUTIONS (HEPI AND R&DPI 3.0)

1971	\$2,084	153.9	\$1,538	160.9	\$1,300	166.2	\$1,002	179.9	162.0
1972	2,314	170.9	1,703	178.1	1,440	184.1	1,149	206.3	180.2
1973	2,486	183.6	1,884	197.1	1,601	204.7	1,263	226.8	197.7
1974	2,744	202.7	2,127	222.5	1,811	231.6	1,441	258.7	222.0
1975	3,006	220.0	2,329	243.6	1,957	250.3	1,519	272.7	241.0

<sup>1</sup> Average salary for full time faculty based on standard 9 month academic year.

<sup>2</sup> Faculty total index for all institutions (HEPI 1.1) is a weighted average based on the proportion of total faculty salaries paid to each academic rank in 1971-72 as follows: professors, 34.5 percent; associate professors, 25.2 percent, assistant professors, 30.2 percent, and instructors, 10.1 percent.

<sup>3</sup> Approximately 150 universities in AAUP Category I which includes institutions which offer the doctorate degree and which conferred in the most recent three years an annual average of fifteen or more earned doctorates covering a minimum of three nonrelated disciplines."

<sup>4</sup> Faculty total index for universities (R&DPI 1.1) is a weighted average based on the proportion of total faculty salaries paid in

1971-72 to each academic rank engaged in R&. as follows, professors, 44.3 percent; associate professors, 28.8 percent; assistant professors, 22.7 percent, and instructors, 4.2 percent.

<sup>5</sup> Fringe benefits are estimated by subtracting AAUP salaries from AAUP compensation data.

<sup>6</sup> Weighted average based on the proportion of total fringe benefits paid to each academic rank in 1971-72 as follows: professors, 34.8 percent, associate professors, 24.8 percent, assistant professors, 30.4 percent, and instructors, 10.0 percent.

Source: American Association of University Professors, relevant issues of the *AAUP Bulletin*.

TABLE 5

Subindexes of wages and salaries of nonprofessional personnel used for the HEPI and R&DPI, fiscal years 1971-75

1967=100

[Number code in parentheses identifies category as outlined in table A]

Fiscal year	Technicians			Craftsmen (2.2)	Clerical (2.3)	Students (2.4)	Service (2.5) (HEPI only)	Operators and laborers (2.6) (HEPI only)	Nonprofessional wages and salaries total (2.0)	
	Engi- neering	Drafts- men	Total <sup>1</sup> (2.1)						HEPI <sup>2</sup>	R&DPI <sup>3</sup>
1971	125.9	123.4	125.5	127.9	125.7	128.1	128.0	128.1	126.9	126.4
1972	132.3	132.3	132.7	137.9	133.4	138.5	138.7	138.5	136.1	134.7
1973	138.5	140.5	140.0	146.6	140.6	147.2	148.0	147.2	144.3	142.5
1974	146.8	149.9	148.2	157.9	149.6	157.7	156.0	157.7	153.4	151.7
1975	160.0	161.9	159.6	est. 172.1	164.0	est. 171.9	164.0	est. 171.9	165.7	164.6

<sup>1</sup> Technicians total index based on weighted average as follows: engineering technicians, 50 percent; draftsmen, 25 percent, and electronic data processing personnel (see table 6 for price series), 25 percent.

<sup>2</sup> HEPI nonprofessional wages and salaries total index based on weighted average as follows: technicians, 10.0 percent; craftsmen,

6.7 percent; clerical, 36.0 percent; students, 13.3 percent; service, 26.7 percent; and operators and laborers, 7.3 percent.

<sup>3</sup> R&DPI nonprofessional wages and salaries total index based on weighted average as follows: technicians, 48.9 percent; craftsmen, 16.8 percent; clerical, 16.8 percent; and students, 17.5 percent.

TABLE 6

## Subindexes of contracted services used for the HEPI and R&amp;DPI, fiscal years 1971-75

1967=100

[Number code in parentheses identifies category as outlined in table A]

Fiscal year	Data processing and equipment rental				Com- muni- cation (4.2)	Trans- portation (4.3)	Printing and dupli- cation (4.4)	Miscel- laneous services (4.5)	Con- sultants other profes- sional services (4.6) (R&DPI only)	Services total HEPI <sup>2</sup> (4.0)	Services total R&DPI <sup>3</sup> (4.0)
	Edp per- sonnel salaries	Edp hard- ware	Total <sup>1</sup> HEPI (4.1)	Total <sup>1</sup> R&DPI (4.1)							
1971	126.8	98.5	107.0	115.5	108.1	135.6	119.7	126.4	128.6	119.3	124.5
1972	133.8	101.9	111.5	121.0	117.4	143.2	126.5	133.4	134.3	126.4	131.3
1973	142.6	105.2	116.4	127.6	120.8	146.3	132.1	140.6	139.2	131.9	137.4
1974	149.4	106.0	119.0	132.0	126.1	148.2	140.1	149.5	147.2	138.1	144.4
1975	156.4	110.4	124.2	138.0	132.2	153.3	159.9	161.9	154.9	150.2	154.4

<sup>1</sup> Data processing and equipment rental total index based on weighted average as follows. HEPI: edp personnel salaries, 30 percent, edp hardware, 70 percent. R&DPI: edp personnel salaries, 60 percent; edp hardware, 40 percent.

<sup>2</sup> HEPI services index total based on weighted average as follows. data processing and equipment rental, 19.2 percent; communication, 20.55 percent; transportation, 9.6 percent; printing and duplication, 6.85 percent; and miscellaneous services, 43.8 percent.

<sup>3</sup> R&DPI services index total based on weighted average as follows: data processing and equipment rental, 18.1 percent, communication, 5.0 percent, transportation, 12.5 percent, printing and duplication, 5.0 percent; miscellaneous services, 52.5 percent; and consultants and other professional services, 6.9 percent.

TABLE 7

Price indexes of building construction and capital equipment purchased by colleges and universities, fiscal years 1971-75

1967=100

Fiscal year	Boeckh Construction Index <sup>1</sup>	Capital Equipment Index <sup>2</sup>	Construction and Equipment Index <sup>3</sup>
1971.....	134.7	115.5	130.7
1972.....	145.7	117.9	139.9
1973.....	154.8	121.5	147.6
1974.....	165.3	131.0	158.0
1975.....	184.5	156.4	179.0

<sup>1</sup> The Boeckh apartments, hotels, and office buildings index compiled by the Boeckh Division of the American Appraisal Company, Inc., and reported in *Construction Review*, published monthly by the U.S. Department of Commerce.

<sup>2</sup> For equipment, a weighted average of the following items from the Wholesale Price Index network: commercial furniture, 40 percent, office and store machines and equipment, 25 percent, general purpose machinery and equipment, 30 percent; and machinery and equipment, 5 percent.

<sup>3</sup> Weighted average as follows: through FY 1972, construction, 79 percent; equipment, 21 percent. Beginning in FY 1973, and "linked" to the earlier price series in FY 1972, construction, 74 percent; equipment 26 percent.



TABLE 8

Fixed weight average resident undergraduate student charges and indexes, by institutional type and control, fiscal years 1967, 1974-76

PUBLIC INSTITUTIONS

Fiscal year	Total tuition, room and board				Tuition and fees				Room and board			
	All	University	4-year <sup>1</sup>	2-year <sup>2</sup>	All <sup>3</sup>	University	4-year <sup>1</sup>	2-year <sup>2</sup>	All <sup>4</sup>	University	4-year <sup>1</sup>	2-year <sup>2</sup>
Amount												
1967	\$1,077	\$1,184	\$987	( <sup>5</sup> )	\$302	\$350	\$287	\$237	\$775	\$834	\$700	( <sup>5</sup> )
1974	1,517				478							
1974	1,498	1,711	1,382		459	588	450	319	1,039	1,123	932	
1975	1,617	1,827	1,517		489	621	488	337	1,128	1,206	1,029	
1976	1,768	1,962	1,679		523	642	531	379	1,245	1,320	1,148	
Index 1967=100												
1967	100.0	100.0	100.0	( <sup>5</sup> )	100.0	100.0	100.0	100.0	100.0	100.0	100.0	( <sup>5</sup> )
1974	140.9	144.5	140.0		158.3	168.0	156.8	134.6	134.1	134.7	133.1	
1975	152.1	154.3	153.7		168.6	177.4	170.0	142.2	145.5	144.6	147.0	
1976	166.3	165.7	170.1		180.4	183.4	185.0	159.9	160.6	158.3	164.0	

See footnotes at end of table.

TABLE 8—Continued

## PRIVATE INSTITUTIONS

Fiscal year	Total tuition, room and board				Tuition and fees				Room and board			
	All <sup>1</sup>	University	4-year <sup>6</sup>	2-year <sup>7</sup>	All <sup>8</sup>	University	4-year <sup>6</sup>	2-year <sup>7</sup>	All <sup>8</sup>	University	4-year <sup>6</sup>	2-year <sup>7</sup>
Amount												
1967	\$2,130	\$2,487	\$1,998	\$1,653	\$1,231	\$1,489	\$1,146	\$796	\$899	\$998	\$852	\$857
1974	3,218	3,693	3,063	2,409	2,039	2,393	1,938	1,323	1,179	1,302	1,125	1,086
1975	3,422	3,883	3,276	2,612	2,170	2,533	2,074	1,377	1,252	1,350	1,202	1,238
1976	3,735	4,283	3,556	2,807	2,364	2,741	2,267	1,514	1,371	1,542	1,289	1,293
Index 1967 = 100												
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1974	151.1	148.5	153.3	145.7	165.6	160.7	169.1	166.2	131.1	130.5	130.2	126.7
1975	160.7	156.1	164.0	158.0	176.3	170.1	181.0	173.0	139.3	135.3	141.1	144.5
1976	175.4	172.2	178.0	169.8	192.0	184.1	197.8	190.2	152.5	154.5	151.3	150.9

<sup>1</sup> Public 4-year colleges with 1966-67 enrollment greater than 2,000 students. California State Colleges and City University of New York (CUNY) colleges charging nominal tuition "fees" and well above average room and board charges (Calif. Ia) are excluded.

<sup>2</sup> Public 2-year colleges with 1966-67 enrollment greater than 1,000 students. Public 2-year colleges in California and in the City University of New York System charging nominal tuition "fees" are excluded.

<sup>3</sup> Tuition values for all public institutions are fixed weight averages based on full-time equivalent 1972-73 student enrollments as follows: universities, 2,066,650 FTE students (37.1 percent); 4-year colleges, 1,712,488 (30.8 percent), and 2-year colleges, 1,787,600 (32.1 percent). Prior to 1974 (and linked to the above series in 1974) tuition values for all public institutions fixed averages based on full-time equivalent 1966-67 student enrollment as follows: universities, 1,476,669 (43.0 percent), 4-year colleges, 1,149,198 (33.4 percent); and 2-year colleges, 812,667 (23.6 percent).

<sup>4</sup> Room and board values for all public institutions are fixed weight averages based on full-time equivalent 1966-67 student enrollments at public universities, 1,476,669 (56.2 percent), and public 4-year colleges, 1,149,198 (43.8 percent). Few of the 812,667 students attending public 2-year colleges contract for room and board. Income

for housing and food services at public 2-year colleges amounted to only 3.8 percent of the total in the public sector in 1966-67. Consequently, excluding 2-year college room and board charges in the calculation of values for all public institutions introduces minimal inaccuracy.

<sup>5</sup> Many public 2-year colleges primarily serving commuting students living at home do not provide room and board services. Charges published by the Beta Club have not been reported with sufficient consistency for the 1961-75 period to establish a valid trend.

<sup>6</sup> A random sample of private 4-year colleges with 1966-67 enrollment greater than 1,000 students.

<sup>7</sup> Private 2-year colleges with 1966-67 enrollment greater than 200 students.

<sup>8</sup> Values for all private institutions are fixed weight averages based on full-time equivalent 1966-67 student enrollments as follows: private universities, 543,351 (32.2 percent), private 4-year colleges, 1,019,915 (60.4 percent); and private 2-year colleges, 124,205 (7.4 percent). Only slight shifts in this attendance pattern have occurred. The 1972-73 FTE student enrollment in the private sector is as follows: universities, 564,115 (31.0 percent), 4-year colleges, 1,147,727 (63.1 percent); and 2-year colleges, 105,780 (5.8 percent).

## APPENDIX

### Price Indexes by Institutional Type and Control

The Higher Education Price Index (HEPI) is based on national averages—both the item weights and the price series used. The expenditure pattern of individual institutions and the prices experienced in some locations may differ markedly from these averages. Variance in the weightings or budget-proportions spent for various items is not particularly significant because the HEPI is dominated by the trend in faculty salaries and similar salary trends for other personnel services. Variance in prices may be more critical, although it should be remembered that *absolute* differences in prices do *not* affect price index values—only price *changes*. Therefore, the substantial difference in salary levels that may exist between a private university in the East, for example, and a public college in the Midwest is not necessarily a factor in determining their respective rates of inflation. Furthermore, many hardware items purchased by colleges and universities are subject to common market conditions or standardized pricing on a national basis which tend to minimize geographical price change differentials.

Where real differences in rates of price change occur, institutions may experience substantially greater or less inflation than that measured by national averages. Yet this event is more likely to be a short term phenomenon than a long range trend. Local deviations in price changes from national averages tend to balance out, with the price series for individual colleges approaching, over time, the trends for all institutions as measured by the HEPI. An individual institution, for example, cannot long lag behind national pay rate increases and still remain competitive.

Although the HEPI is a valid and applicable measure of general inflation for most colleges and universities, some institutions may feel special circumstances warrant calculation of their own index based on selected price series and weighting according to a distinct expenditure pattern. Also, to be alert to possible deviant trends in prices for identifiable groups of institutions, there is some justification for maintaining separate price series for universities, 4-year colleges, and 2-year colleges by sector. At present, the only known published price data subclassified in this manner are salaries and fringe benefits surveyed by the American Association of University Professors. The data presented in table A-2, indicate that during the 4-year period FY 1971-75, faculty salaries increased least (4.0 percent compounded annually) for church-related universities (AAUP category I) and 4-year colleges (AAUP category IIB), and most (5.5 percent compounded annually) for public 2-year colleges without academic ranks (AAUP category IV). Faculty and fringe benefits increased least (6.8 percent compounded annually) for private universities (AAUP category I), and most (20 percent compounded annually) for public 2-year colleges without academic ranks (AAUP category IV).

What impact do these differences have if incorporated in specialized institutional group price indexes? The indexes, otherwise computed using the HEPI price series and weights, are shown in table A-1. The previous noted differences are obviously less distinct. With the exception of a high 8.0 percent compound annual price increase for public 2-year colleges without academic rank (AAUP category IV), price increases for all other institutional groups ranged from 6.0 to 7.0 percent compounded annually. The comparable rate of increase for the HEPI was 6.6 percent. Thus incorporation of two specialized price series—faculty salaries and fringe benefits by institutional type and control group, results in an approximate  $\pm 0.5$  percent maximum difference in annual price change compared to the HEPI for the FY 1971-75 period.

TABLE A-1

Current fund educational and general expenditures<sup>1</sup> price indexes, by institutional type and control, fiscal years 1971-75

Fiscal year	All-institutions (HEPI)	Public institutions				
		Category I	Category IIA	Category IIB	Category III	Category IV
1971	100.0	100.0	100.0	100.0	100.0	100.0
1972	105.5	105.9	105.5	107.3	105.6	105.3
1973	111.0	110.5	111.6	112.4	110.4	114.3
1974	118.7	118.4	120.4	119.8	119.2	121.5
1975	129.0	128.4	131.8	130.6	128.6	136.1

	Private institutions			Church-related institutions		
	Category I	Category IIA	Category IIB	Category I	Category IIA	Category IIB
1971	100.0	100.0	100.0	100.0	100.0	100.0
1972	105.3	105.9	106.7	104.7	105.3	105.3
1973	110.3	111.6	112.2	111.0	110.6	111.0
1974	117.3	117.0	119.4	117.2	117.1	117.5
1975	126.9	127.8	129.6	127.9	127.5	127.2

<sup>1</sup> Excludes expenditures for sponsored research.

Notes.—These specialized institutional type-control price indexes for current-fund educational and general expenditures are computed using the HEPI price series and weighting pattern presented in tables 1, 3, 5, and 6, with the exception that data from table A-2 is substituted for faculty salaries (item 1.1) and fringe benefits (item 3.0).

AAUP institutional type category descriptions:

Category I—includes institutions which offer the doctorate degree and which conferred in the most recent 3 years an annual average of 15 or more earned doctorates covering a minimum of 3 nonrelated disciplines.

Category IIA—includes institutions awarding degrees above the baccalaureate but not included in Category I.

Category IIB—includes institutions awarding only the baccalaureate or equivalent degree.

Category III—includes 2-year institutions with academic ranks.

Category IV—includes institutions without academic ranks. (With the exception of a few liberal arts colleges, this category includes mostly 2-year institutions.)

TABLE A-2

Faculty salaries and fringe benefits, amounts, and indexes, by academic rank and by AAUP institutional type and control, fiscal years 1971-75

ALL INSTITUTIONS

Fiscal year	Professors		Associate professors		Assistant professors		Instructors		Faculty total index <sup>1</sup>
	Amount	Index	Amount	Index	Amount	Index	Amount	Index	
Salary									
1971	\$18,314	100.0	\$13,792	100.0	\$11,347	100.0	\$9,084	100.0	100.0
1972	18,913	103.3	14,266	103.4	11,765	103.7	9,520	104.8	103.0
1973	19,751	107.8	14,887	107.9	12,289	108.3	9,873	108.7	108.0
1974	20,798	113.6	15,641	113.4	12,872	113.4	10,344	113.9	113.0
1975	21,870	119.4	16,495	119.6	13,578	119.7	11,005	121.1	119.0
Fringe Benefits									
1971	\$2,084	100.0	\$1,538	100.0	\$1,300	100.0	\$1,002	100.0	100.0
1972	2,314	111.0	1,703	110.7	1,440	110.8	1,149	114.7	111.0
1973	2,486	119.3	1,884	122.5	1,601	123.2	1,263	126.0	122.0
1974	2,744	131.7	2,127	138.3	1,811	139.3	1,441	143.8	137.0
1975	3,006	144.2	2,329	151.4	1,957	150.5	1,519	151.6	148.0

## PUBLIC INSTITUTIONS

For AAUP category descriptions see table A-1

### CATEGORY I

Fiscal year	Professors		Associate professors		Assistant professors		Instructors		Faculty total index <sup>1</sup>
	Amount	Index	Amount	Index	Amount	Index	Amount	Index	
Salary									
1971	\$19,150	100.0	\$14,350	100.0	\$11,760	100.0	\$8,970	100.0	100.0
1972	19,820	103.5	14,870	103.6	12,190	103.7	9,430	105.1	103.7
1973	20,470	106.9	15,290	106.6	12,580	107.0	9,730	108.5	106.9
1974	21,581	112.7	16,066	112.0	13,201	112.3	10,154	113.2	112.4
1975	22,680	118.4	16,880	117.6	13,850	117.8	10,770	120.1	118.1
Fringe benefits									
1971	\$1,930	100.0	\$1,470	100.0	\$1,270	100.0	\$1,000	100.0	100.0
1972	2,250	116.6	1,670	113.6	1,420	111.8	1,140	114.0	114.5
1973	2,340	121.2	1,800	122.4	1,540	121.3	1,210	121.0	121.5
1974	2,648	137.2	2,071	140.9	1,770	139.4	1,391	139.1	138.8
1975	2,860	148.2	2,230	151.7	1,910	150.4	1,510	151.0	149.2



## PUBLIC INSTITUTIONS (Continued)

## CATEGORY IIA

Fiscal year	Professors		Associate professors		Assistant professors		Instructors		Faculty total index <sup>1</sup>
	Amount	Index	Amount	Index	Amount	Index	Amount	Index	
Salary									
1971	\$17,420	100.0	\$13,830	100.0	\$11,440	100.0	\$9,220	100.0	100.0
1972	17,850	102.5	14,140	102.2	11,800	103.1	9,540	103.5	102.7
1973	18,980	109.0	15,000	108.5	12,470	109.0	10,130	109.9	108.9
1974	20,450	117.4	15,960	115.4	13,120	114.7	10,700	116.1	115.9
1975	21,550	123.7	16,890	122.1	13,920	121.7	11,420	123.9	122.6
Fringe benefits									
1971	\$1,680	100.0	\$1,370	100.0	\$1,230	100.0	\$970	100.0	100.0
1972	1,910	113.7	1,560	113.9	1,430	116.3	1,170	120.6	115.2
1973	2,020	120.2	1,710	124.8	1,550	126.0	1,300	134.0	124.6
1974	2,330	138.7	2,025	147.8	1,800	146.3	1,530	157.7	145.4
1975	2,800	166.7	2,380	173.7	2,020	164.2	1,640	169.1	168.0

CATEGORY IIB

Fiscal year	Professors		Associate professors		Assistant professors		Instructors		Faculty total index <sup>1</sup>
	Amount	Index	Amount	Index	Amount	Index	Amount	Index	
Salary									
1971	\$15,250	100.0	\$12,590	100.0	\$10,810	100.0	\$8,910	100.0	100.0
1972	16,650	109.2	13,510	107.3	11,300	104.5	9,490	106.5	106.5
1973	17,000*	111.5	14,160	112.5	11,680	108.0	9,680	108.6	109.9
1974	17,360	113.8	14,430	114.6	12,120	112.1	10,180	114.3	113.5
1975	18,260	119.7	15,310	121.6	12,890	119.2	10,750	120.7	120.2
Fringe benefits									
1971	\$1,190	100.0	\$1,210	100.0	\$1,120	100.0	\$820	100.0	100.0
1972	1,550	130.3	1,350	111.6	1,240	110.7	1,040	126.8	117.7
1973	1,700	142.9	1,490	123.1	1,522	135.9	1,140	139.0	134.7
1974	2,030	170.6	1,830	151.2	1,640	146.4	1,100	134.1	150.2
1975	2,120	178.2	1,990	164.5	1,720	153.6	1,418	172.0	164.6

\*Adjusted to correct for change in reporting institutions.

## PUBLIC INSTITUTIONS (Continued)

## CATEGORY III

Fiscal year	Professors		Associate professors		Assistant professors		Instructors		Faculty total index <sup>1</sup>
	Amount	Index	Amount	Index	Amount	Index	Amount	Index	
Salary									
1971	\$17,100	100.0	\$14,120	100.0	\$11,760	100.0	\$9,760	100.0	100.0
1972	18,060	105.6	14,570	103.2	12,350	105.0	10,200	104.5	104.6
1973	18,860	110.3	15,250	108.0	12,870	109.4	10,310	105.6	108.5
1974	19,519	114.1	16,078	113.9	13,672	117.4	10,878	111.5	114.8
1975	20,410	119.4	16,860	119.4	14,420	122.6	11,640	119.3	120.6
Fringe benefits									
1971	\$2,240	100.0	\$1,750	100.0	\$1,590	100.0	\$1,270	100.0	100.0
1972	2,380	106.3	1,890	108.0	1,690	106.3	1,370	107.9	107.0
1973	2,720	121.4	2,180	124.6	1,990	125.2	1,490	117.3	112.9
1974	2,881	128.6	2,456	140.3	2,194	138.0	1,701	133.9	136.2
1975	3,030	135.3	2,520	144.0	2,260	142.1	1,680	132.3	139.6

CATEGORY IV

Fiscal year	Salary		Fringe benefits	
	No rank, faculty total		No rank. faculty total	
	Amount	Index	Amount	Index
1971.....	\$12,610	100.0	\$900	100.0
1972.....	12,750	101.1	1,080	120.0
1973.....	14,030	111.3	1,300	144.4
1974.....	14,510	115.1	1,459	162.1
1975.....	15,660	124.2	1,880	208.9

**PRIVATE INDEPENDENT INSTITUTIONS**  
For AAUP category descriptions see table A-1

**CATEGORY I**

Fiscal year	Professors		Associate professors		Assistant professors		Instructors		Faculty total index <sup>1</sup>
	Amount	Index	Amount	Index	Amount	Index	Amount	Index	
<b>Salary</b>									
1971	\$21,080	100.0	\$14,640	100.0	\$11,840	100.0	\$9,290	100.0	100.0
1972	21,850	103.7	15,320	104.6	12,380	104.6	9,800	105.5	104.2
1973	22,500	106.7	15,850	108.3	12,820	108.3	10,240	110.2	107.5
1974	23,602	112.0	16,585	113.3	13,322	112.5	10,685	115.0	112.5
1975	24,970	118.5	17,480	119.4	13,910	117.5	11,160	120.1	118.6
<b>Fringe benefits</b>									
1971	\$3,250	100.0	\$2,130	100.0	\$1,690	100.0	\$1,120	100.0	100.0
1972	3,430	105.5	2,300	108.0	1,790	105.9	1,180	105.4	106.1
1973	3,730	114.8	2,530	118.8	1,940	114.8	1,380	123.2	116.0
1974	4,077	125.4	2,730	128.2	2,106	124.6	1,477	131.9	126.1
1975	4,260	131.1	2,810	131.9	2,120	125.4	1,480	132.1	130.2

CATEGORY IIA

Fiscal year	Professors		Associate professors		Assistant professors		Instructors		Faculty total index <sup>1</sup>
	Amount	Index	Amount	Index	Amount	Index	Amount	Index	
Salary									
1971.....	\$17,120	100.0	\$13,390	100.0	\$11,040	100.0	\$9,070	100.0	100.0
1972.....	17,940	104.8	14,160	105.8	11,650	105.5	9,600	105.8	105.4
1973.....	18,680	109.1	14,730	110.0	12,200	110.5	10,030	110.6	109.9
1974.....	18,805	109.8	14,910	111.4	12,430	112.6	10,325	113.8	111.5
1975.....	20,390	119.1	16,010	119.6	13,150	119.1	10,910	120.3	119.3
Fringe benefits									
1971.....	\$2,500	100.0	\$1,870	100.0	\$1,450	100.0	\$1,010	100.0	100.0
1972.....	2,740	109.6	1,980	105.9	1,520	104.8	1,090	107.9	106.9
1973.....	2,990	119.6	2,230	119.3	1,750	120.7	1,210	119.8	119.9
1974.....	3,145	125.8	2,370	126.7	1,880	129.7	1,285	127.2	127.4
1975.....	3,350	134.0	2,590	138.5	2,000	137.9	1,360	134.7	136.5

See footnote at end of table.

## PRIVATE INDEPENDENT INSTITUTIONS—Continued

## CATEGORY IIB

Fiscal year	Professors		Associate professors		Assistant professors		Instructors		Faculty total index <sup>1</sup>
	Amount	Index	Amount	Index	Amount	Index	Amount	Index	
	Salary								
1971	\$15,700	100.0	\$12,130	100.0	\$10,270	100.0	\$8,790	100.0	100.0
1972	16,810	107.1	12,890	106.3	10,780	105.0	9,240	105.1	106.0
1973	17,500	111.5	13,330	109.9	11,220	109.3	9,640	109.7	110.2
1974	18,260	116.3	14,050	115.8	11,700	113.9	9,830	111.8	115.0
1975	19,310	123.0	14,720	121.4	12,330	120.1	10,620	120.8	121.5
	Fringe benefits								
1971	\$2,100	100.0	\$1,610	100.0	\$1,250	100.0	\$910	100.0	100.0
1972	2,400	114.3	1,800	111.8	1,400	112.0	1,080	118.7	113.2
1973	2,630	125.2	2,020	125.5	1,600	128.0	1,110	122.0	125.9
1974	2,910	138.6	2,190	136.0	1,740	139.2	1,270	139.6	138.2
1975	3,130	149.0	2,320	144.1	1,830	146.4	1,410	154.9	147.3

# CHURCH-RELATED INSTITUTIONS

For AAUP category descriptions see table A-1

## CATEGORY I

Fiscal year	Professors		Associate professors		Assistant professors		Instructors		Faculty total index
	Amount	Index	Amount	Index	Amount	Index	Amount	Index	
Salary									
1971...	\$18,100	100.0	\$13,930	100.0	\$11,390	100.0	\$9,030	100.0	100.0
1972...	18,440	101.9	14,310	102.7	11,770	103.3	9,500	105.2	102.8
1973...	19,220	106.2	14,990	107.6	12,270	107.7	9,970	110.4	107.3
1974...	19,920	110.1	15,438	110.8	12,589	110.5	10,196	112.9	110.6
1975...	20,910	115.5	16,270	116.8	13,370	117.4	10,900	120.7	116.8
Fringe benefits									
1971...	\$2,030	100.0	\$1,600	100.0	\$1,230	100.0	\$910	100.0	100.0
1972...	2,090	103.0	1,700	106.3	1,320	107.3	1,000	109.9	105.6
1973...	2,480	122.2	2,000	125.0	1,590	129.3	1,170	128.6	125.5
1974...	2,578	127.0	2,120	132.5	1,717	139.6	1,299	142.7	133.2
1975.....	2,830	139.4	2,380	148.8	1,960	159.3	1,560	171.4	149.9

See footnote at end of table.



## CHURCH-RELATED INSTITUTIONS—Continued

## CATEGORY IIA

Fiscal year	Professors		Associate professors		Assistant professors		Instructors		Faculty total index <sup>1</sup>
	Amount	Index	Amount	Index	Amount	Index	Amount	Index	
Salary									
1971.....	\$15,430	100.0	\$12,410	100.0	\$10,390	100.0	\$8,520	100.0	100.0
1972.....	16,120	104.5	12,910	104.0	10,870	104.6	8,950	105.0	104.4
1973.....	16,690	108.2	13,360	107.7	11,280	108.6	9,220	108.2	108.2
1974.....	17,230	111.7	13,800	111.2	11,570	111.4	9,630	113.0	111.6
1975.....	18,280	118.5	14,790	119.2	12,410	119.4	10,260	120.4	119.2
Fringe benefits									
1971.....	\$2,050	100.0	\$1,630	100.0	\$1,260	100.0	\$940	100.0	100.0
1972.....	2,110	102.9	1,680	103.1	1,340	106.3	1,000	106.4	104.4
1973.....	2,310	112.7	1,880	115.3	1,500	119.0	1,100	117.0	115.9
1974.....	2,560	124.9	2,070	127.0	1,650	131.0	1,180	125.5	127.6
1975.....	2,720	132.7	2,030	124.5	1,800	142.9	1,270	135.1	133.9

CATEGORY IIB

Fiscal year	Professors		Associate professors		Assistant professors		Instructors		Faculty total index
	Amount	Index	Amount	Index	Amount	Index	Amount	Index	
Salary									
1971.....	\$14,280	100.0	\$11,520	100.0	\$9,890	100.0	\$8,360	100.0	100.0
1972.....	14,820	103.8	11,940	103.6	10,220	103.3	8,640	103.3	103.5
1973.....	15,440	108.1	12,390	107.6	10,560	106.8	8,920	106.7	107.4
1974.....	15,960	111.8	12,700	110.2	10,890	110.1	9,270	110.9	110.7
1975.....	16,760	117.4	13,390	116.2	11,430	115.6	9,720	116.3	116.3
Fringe benefits									
1971.....	\$1,840	100.0	\$1,410	100.0	\$1,130	100.0	\$790	100.0	100.0
1972.....	1,980	107.6	1,530	108.5	1,230	108.8	900	113.9	108.9
1973.....	2,280	123.9	1,770	125.5	1,410	124.8	1,010	127.8	125.0
1974.....	2,510	136.4	1,930	136.9	1,540	136.3	1,075	136.1	136.5
1975.....	2,640	143.5	2,050	145.4	1,620	143.4	1,150	145.6	144.2

The faculty total index for salaries and fringe benefits is an average of indexes for each academic rank weighted according to the proportion of total faculty salaries paid each rank as shown in table A-3.

Source: Summer issues of the *AAUP Bulletin* (Maryse Eymoneire Survey Director).

TABLE A-3

Estimated distribution of total faculty salaries paid each academic rank, by institutional type and control, fiscal year 1974

AAUP institutional category <sup>2</sup>	Percentage distribution of total faculty salaries paid <sup>1</sup>				Number of institutions submitting data
	Professor	Associate professor	Assistant professor	Instructor	
All institutions <sup>3</sup>	34.5	25.2	30.2	10.1	1,479
Public:					
I..	44	27	24	5	106
IIA.	31	28	32	9	242
IIB	20	25	37	18	85
III...	17	25	39	19	185
Private					
Independent:					
I	54	22	20	4	48
IIA	32	28	31	9	76
IIB	33	26	33	8	98
Church-related:					
I	37	27	29	7	15
IIA	29	29	33	9	100
IIB	28	27	35	10	281

<sup>1</sup> Percentage distribution of total salaries paid was estimated by multiplying distribution of full-time faculty members by corresponding salary amounts for each rank and comparing with total for all ranks.

<sup>2</sup> For AAUP category descriptions see table A-1.

<sup>3</sup> Data for all institutions is for fiscal year 1972.

Source: 1972 and 1974 Summer issues of the AAUP Bulletin.