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ABSTRACT

The major thrust of this brief is concerned with the level of operating support for 1974-75 and 1975-76 of the Ontario Universities to ensure that the universities are able to keep up with cost increases, hold the line against further erosion of university resources, avoid deficit financing, and prevent further internal reallocations that would be damaging to the long-term interests of the universities and society. This document concerns operating grants, cost pressures in the universities, allocation of resources, cyclic renewal of the physical plant, staff mobility, and comparative activities. Related tables include: percentage analysis of expenses of the University of Ontario, annual average percent wage increases, and comparative prices for the universities. The appendix includes the effect of the slip-year implementation. (Author/PG)

Council of Ontario Universities
Conseil des Universites de l'Ontario

BRIEF TO THE COMMITTEE ON UNIVERSITY AFFAIRS

STABILITY: A CONTINUING ISSUE

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The major thrust of this year's Brief is concerned with the level of operating support for 1974-75 and 1975-76 to ensure at a minimum that we are able to keep up with cost increases, hold the line against further erosion of university resources, avoid deficit financing, and prevent further internal reallocations which would be damaging to the long-term interests of our universities and society. We comment briefly on other significant issues at the end of this paper.

OPERATING GRANTS - RECURRENT ISSUES

Matters of finance occupied about half of our Brief to CUA in 1972. The slip year was adopted and thus some of the financial worries of some of the universities were relieved. However, in most other respects our comments on the financial issues in the fall of 1973 are substantially the same. Universities (especially those receiving extra-formula grants) still do not know until just before the beginning of the fiscal year what their income to cover expenses will be. A number of universities also see substantial deficits arising because of insufficient enrolment levels (basic income units) and insufficient funds to cover ongoing expenditures. At the time of this writing it is uncertain whether the increase in the value of the income unit for 1974-75 will be the announced 5% minimum or some value above it. (It should be noted that for a university of 1,000 units a variance of one percentage point represents about $54,000.) Enrolment will not settle down until December, so that firm estimates of slip-year income from units alone will not be known until that time and the amount from increased unit value cannot be estimated except as a floor

until the final announcement is made. For the universities receiving compensatory grants the combined uncertainty can represent uncertainty about a large proportion of their budgets. These universities need much more lead time in the announcements of what these grants will be. We reaffirm that all universities need to know well in advance within permissible limits of error what their income will be at least for the budget year and the following year.

In addition, the record shows that universities have not received equal treatment in the disposition of operating funds in the past few years when contrasted with other comparable sectors. Universities face increasing costs similar to other sectors and their situation is exacerbated by relatively stable enrolment levels (increased income is in part based on increased enrolment) and abnormal faculty age distribution patterns that result in very low retirement rates which inhibit internal flexibility.

In summary, we have essentially three basic problems in operating finance - insufficient knowledge of likely funding levels on a multi-year basis well in advance of the beginning of the next fiscal year; insufficient funds to cover inescapable cost increases; and an operating grants formula which does not have adaptive mechanisms for ensuring income to meet ongoing costs at universities and for cushioning shocks of enrolment shortfalls.

COMPARATIVE MEASURES

The increases to the BIU (that is, increases for unit costs) in 1972-73 and 1973-74 were 2% and 3.4% respectively - much less than inflation was and is likely to be. Total provincial grants increases to universities were about 4% in 1972-73 and about 5% in 1973-74 - much lower than for other sectors. For example, grants increases to the hospital sector were 5.0% in 1972-73 and will probably be about 7% in 1973-74. For elementary and secondary schools the grants increases were 7.5% and 7.9% respectively. For the CAATs the increase for 1972-73 was 17.1%. For 1973-74 the non-university post-secondary increase was about 18%. The provincial budget expenditures increased by 7.9% and 11.6% in these same years.

Grants per student is a measure of provincial government support for students in the schools, colleges, and universities. Grants per students in universities in 1972-73 and 1973-74 increased by 0.4% and 2.8% respectively. (The low figure in 1972-73 reflects the shift of funding from government grants to student fees because of the increase in university student fees.) The corresponding increases in grants per student in elementary schools for the same years are 9.2% and 5.9% with an 8.4% increase projected for 1974-75. In the secondary schools, the comparative increases are 3.8%, 3.8%, and 7.1%.

COST PRESSURES IN UNIVERSITIES

Universities are labour-intensive. Salaries, wages, and benefits account for close to 80% of the operating expenses of universities. Increases in academic salary settlements in universities averaged 7% to 8% in the same two years. These increases were made up of about $3\frac{1}{2}$% for scale and 3% to 4% for upgrading, merit, and fringes. Because these increases were greater than increases in funds, universities have had to contemplate real deficits and make substantial internal reallocations which will have both immediate and long-range effects. Schedule 4 (attached as Table 1) taken from the Committee of Finance Officers' financial report for 1973 shows that salaries and benefits of all personnel accounted for 75.9% of operating expenses in 1970-71 and 78.9% in 1972-73. This change in proportion required reallocations internally, some of which could be injurious to universities if continued. The largest losers, not in absolute terms but in percentage terms, were equipment and furniture purchases, operational supplies and expense, books and periodicals, and renovations and alterations. Universities are also being hit by rising costs - they will not be forever able to reduce maintenance and non-salary expenditures, especially when unit costs in these areas are increasing so rapidly.

A specific example of what is happening to the prices of the things universities buy may be illustrated by the costs of library books and periodicals. Unit prices of these are expected to go up by at least 15% next year. April and July studies by the University of Toronto Library showed that dollar devaluation immediately increased purchasing costs by from 3% to 7%. These two increases together could cost universities 20% more

to purchase at the same level of volume as in previous years.

Increases in salaries are largely necessitated by salary settlements in other comparable sectors. As we pointed out in our December 1972 Brief to CUA, we must maintain a degree of parity in salary with other professional groups and we cannot deviate a great deal in any one year from the average increases awarded to other sectors of the workforce. Collective bargaining settlements, federal and provincial civil service settlements, CAAT and secondary school settlements, increases in the average income of business executives, medical doctors, dentists, lawyers all combine to put pressures on universities to increase salaries and wages in such a way that a degree of equity is seen to be attained.

Increases in salaries and wages are of three general types: increases to scale, increases for upgrading within the scale or between scales, and increases to fringe benefits. Many salary and collective bargaining settlements express increases as increases to scale only with separate increases to fringe benefits. Often increases which are for merit within grade and upgrading between grades are not shown. (Some systems, however, are one-rate systems, particularly in the trades.) Merit increass are funded in part from retirement and outflows of staff, i.e. staff retiring or leaving at high salaries release money which may be used to hire junior staff members at lower salaries and to provide upgrading and merit increases. In a typical staffing pattern this released money will approximate 2 to 2.5% of the salaries budget. In the situation we have in Ontario universities now with very few staff retiring because of the age distribution and outflow at a minimum, released funds amount to less than one percent of the salaries budget and will remain abnormally low for the rest of the decade. Thus universities are placed in double jeopardy; recent government funding increases have been substantially less than inflation, and there has been less released money for providing upward mobility of staff.

Table 2 shows that the average annual percentage increase in wage rates established by collective bargaining settlements in all industries negotiated in the third quarter of 1973 was 8.6%. The Education and Related services sector of these industries negotiated an average increase of 9.4%.

Scale increases in the federal civil service in the past couple of years have been in the range of 5% to 8% with the increases for economists, statisticians, sociologists, chemists, biologists, nurses, etc., in the range of 6% to 8%. Ontario civil service scale increases awarded in the past two years for psychologists, engineers, scientists, statisticians, and education officers ranged from 5% to 7%. If we add a nominal 3% for upgrading to these scale figures, most total increases would have to have been in the range of 8% to 11%. Thus, what universities have been able to award in the way of salary increases, particularly for the scale factor, has been substantially less than other sectors including those with which they must compete.

University non-salary cost increases appear to be even higher, not surprisingly since the cost of labour from the settlements is included in the new costs of non-salary goods and services purchased by the universities. The University of Guelph has done a comparative study of a representative cross-section of purchases and finds that 1973 prices for the sample were about 12% higher on the average than 1972 prices. (See attached Tables 3a, b, and c; similar data prepared by the University of Waterloo are attached as Table 3d.)

It is our understanding that Statistics Canada is doing some exploratory work on the development of a university cost index but that it will probably be two or three years before such an index could be made operative. (We believe however that an index could be easily developed in a much shorter time period. The Joint Subcommittee on Finance/Operating Support should be asked to recommend on whether internal indexes or external proxies would be most appropriate.) For the interim we suggest that the most appropriate proxies would be the most recent collective bargaining settlements weighted at .8 and the general wholesale price index weighted at .2. (See Table 4 for the record of wholesale price indexes.) The weights roughly reflect the distribution of operating expenditures between salaries and wages (including benefits) and other operating expenditure. We have explored other possible proxies including average weekly wages and salaries, the consumer price index for all items and for services, gross national expenditure, and government current expenditure on goods and services. These analyses

are included as tables 5 to 7 and charts a through f. All indexes lend support to the general record of continuing price increases, but we believe that the combined index of collective bargaining settlements and wholesale prices for the most recent 12-month period properly weighted would be the most appropriate for estimating the cost pressures facing universities at this time. Guelph's purchasing cost increases reflect a somewhat lower level of increase than the wholesale prices. On the other hand, Waterloo's price increases appear greater. Taken together with the projected unit cost increases for library materials, the most recent wholesale price index increase of 15% appears to be a reasonable indicator.

In this connection it is of interest to note the U.K. experience with a university cost index. About eight years ago the University Grants Commission and Treasury adopted an approach whereby a university cost index for non-supplemented salaries and other costs would be produced on a six-monthly basis with the annual price change as the basis of claims for compensation. The university cost index applies to about 50% of recurrent expenditures, the other 50% being academic and higher administrative salaries which are increased through the prescribed negotiating machinery. The necessary money to meet the increases for the latter are provided as supplements to the quinquennial university grant.

Professor A.J. Brown of the University of Leeds developed the index for the Committee of Vice-Chancellors and updates the index every six months at a nominal cost of about $2,000 per year. Treasury and UGC accept the results without question and the index offers little trouble to produce. Prof. Brown's latest analysis shows that the total increase in expenditures from January 1, 1972, to January 1, 1973, was 10.3%, comprised of 12.6% increase in non-supplemented salaries and other costs and 8.0% increase in supplemented salaries and superannuation.*

Prof. Brown was asked to compare the performance of his university cost index from the date of its inception to external indexes which might have been used as proxies. The result of the comparison is as follows:

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* A copy of Professor Brown's latest analysis may be obtained from the Secretariat of COU upon request.

(July 1966 = 100)

	Retail Price Index	GNP Deflator	University Cost Index+
January 1972	135.4	133.9	146.0
January 1973	145.9	143.3	164.3

+excluding supplemented salaries

The meaning of this comparison is that university costs included in the index have risen quite a good deal more than the proxies. Presumably, if the U.K. universities had relied on the proxies they would not have obtained as much compensation in the period.

VALUE OF THE BIU IN 1974-75 and 1975-76

In Stability for Planning we suggested that a possible increase in funds to the system for 1973-74 which would maintain present unit cost levels would be 8%, comprised of 3% for increase in number of units over 1972-73 and 5% for increases in the costs of goods and services. We suggested that flexibility would be required so that if enrolments and costs of goods and services deviate from projections, adjustments to these figures would be appropriate. Further, it was suggested that in the year of change to the slip year, that is 1973-74, the value of the basic income unit should be adjusted upward to reflect anticipated growth in the system in addition to increased unit costs. If this were not done, the universities would lose their growth entitlement for that year.

The adjustment to the BIU was not made and was compensated for only in part by the early conversion to 1/5 for part-time students and the exclusion of certain professional school enrolment from slip-year calculations. Together these accounted for only a 1.6% increase in funds. The 3.4% increase in basic unit value was not increased to 5%, thus universities were short a logical funds entitlement increase of approximately 3%, that is, 8% - (3.4% + 1.6%) = 3%, or about $13 million, with about $6 million of this shortage (1.3%) a direct result of moving to the slip year and not getting full growth entitlement. (Latest enrolment estimates provided by MCU show an estimated 1973-74 enrolment increase of 2.4% which should convert to at least a 3% increase in income units.) In short then, we asked for the slip year with an 8% increase in funds and received the slip year with about a 5% increase in funds.

On the positive side, the importance of the slip year for improving our planning lead time should not be minimized. It was a positive step, but there were losses to the system and differentially to some universities which were not compensated for by gains to the others. An illustrative analysis of the differential financial effects is included as Appendix A.

We applaud the spirit of the Minister's announcement last spring of a minimum 5% increase in the value of the basic income unit. We hope that a similar provisional announcement reflecting recent developments will be made very soon. We are concerned, however, that the 1974-75 value should be adjusted upward appropriately from the announced 5% minimum and that the 1975-76 value continue to provide sufficient funds to meet increased costs. Agreed-upon increases in enrolment in certain professional programmes should continue to be funded on a current-year basis. We note also that the need for biennial planning, indeed triennial planning, has not diminished. We quote from Stability for Planning: "...an adequate level of funding firmly committed for a longer planning period will do much to ensure that unhealthy competition will not take place and will encourage a reconciliation of the enrolment growth plans and prospects of the universities."

We have suggested that in lieu of a university cost index the most appropriate index of university costs would be a properly weighted index of recent collective bargaining settlements and wholesale prices over the most recent 12-month period. The percentage increases for these from tables 2 and 4 are 9.2 and 15 (third quarter 1973 for the former and May 1972 to May 1973 for the latter). This suggests that the value for 1974-75 should be increased by 10.36% to $2.014 (that is, [.8 x $1,825 x 1.092] + [.2 x $1,825 x 1.15] $\cong$ $2,014). The 1975-76 BIU value should be announced provisionally as reflecting this increase but it should be adjusted using this methodology when the 1974 third-quarter data are available.

OTHER SIGNIFICANT ISSUES

By the end of the year the issue of structure should be resolved. The long-range problems of operating finance will not be solved in the short term. The development of an operating finance formula which will properly reflect the priorities of the next five to ten years will require at least a year with the elements of the new structure working together on this development. In the meantime a short-term revision aimed at moderating the effects of widely fluctuating enrolments and consequent income is necessary and it is our hope that an acceptable "interim revision" will be achieved by the end of this year. Recent proposals of the Joint CUA/COU Subcommittee on Finance/Operating Support are now under discussion.

Allocation of resources to university instruction and scholarly activities of faculty is a major policy issue at both levels of government, federal and provincial, at the system level, and internally within universities. It is a crucial issue for universities. As matters stand now, scholarly research is seen to depend so much in the universities on graduate student income units; universities without these income units feel that they are operating at a severe research disadvantage. COU and CUA should bend their efforts to find ways to accommodate this without driving an artificial wedge between the funding of instruction and research which could have unpalatable steering effects. This might be done by assigning weights to post-doctoral fellows or by creating a special government fund for allocation to undergraduate departments of high caliber, etc. Studies should be started and the results should of course be communicated to governments so that they will have impact on the 1977 fiscal transfer decisions. We would hope, however, that this problem will be solved much sooner within the Ontario system.

Task forces of the COU Committee on Capital Financing have been studying the problems of cyclic renewal of the physical plant and the tradeoffs of original costs and upkeep costs (life costs). Reports of pilot studies are being considered by COU now and it is expected that this work will be continued beyond the pilot study stage to provide

essential data for the development of revised operating and capital funding formulae. A proposal for determining the level of cyclic renewal funds has been prepared and will be presented separately.

With respect to improving staff mobility, COU considers that provision for career development of highly qualified staff in Ontario universities is of high priority. Payments to salaries and fringe benefits of academics are about 45% of total expenditures; when senior administrative and technical staff are included the total would exceed 50% of the universities' budgets. This large category of expenditure (particularly the academic ranks portion) has become relatively inflexible because of non-typical age distributions. For example, 50% of the academic staff in Ontario universities are younger than 38 and total retirement through 1980 is expected to be less than 8%. A special joint committee of COU and OCUFA is examining the issue of early retirement and will report on this examination shortly. Following this report it is expected that a further study aimed at long-term measures for career development will be recommended.

Cooperative activities have advanced very significantly in the past year. The first planning assessments in the ACAP programme have been successfullly completed. As a result of thorough and prolonged deliberations COU adopted a set of general principles which will govern all the planning assessments. The recommendations of the assessments now completed demonstrate that the universities are undertaking their evaluation with courage and firm resolve. A new and important programme of library cooperation which will have major consequences in the quality of services and in savings has been launched. A special task force including persons from outside the university community is addressing the difficult problem of suitable organizational and administrative arrangements to provide computing services most effectively on a system-wide basis.

Table 1

Schedule 4

PROVINCIALLY ASSISTED UNIVERSITIES OF ONTARIO
PERCENTAGE ANALYSIS OF EXPENSES
TOTAL ALL UNIVERSITIES
1970-71 to 1972-73

	12 months 1970-71	10 months 1971-72	12 months 1972-73
I OPERATING EXPENSES BY OBJECT OF EXPENSE			
Salaries and Wages			
Academic Ranks	37.0%	36.9%	38.7%
Other Instruction and Research	4.5	5.1	4.1
Other Salaries and Wages	28.6	28.3	29.4
Total Salaries and Wages	70.1	70.3	72.2
Fringe Benefits	5.8	6.2	6.7
Total Salaries and Benefits	75.9	76.5	78.9
Books and Periodicals	2.9	2.9	2.5
Furniture and Equipment			
Purchase	3.2	3.3	2.2
Rental	1.6	1.5	1.6
Operational Supplies and Expenses	7.2	7.2	6.3
Utilities	3.0	3.3	3.3
Taxes	0.7	0.7	0.7
Renovations and Alterations	1.5	1.0	1.0
Externally Contracted Services	0.8	0.8	1.0
Scholarships, Bursaries, Etc.	0.2	0.3	0.4
Principal and Interest Repayments	0.2	0.1	0.1
Miscellaneous	3.6	3.2	3.0
Internal Cost Allocations	-0.8	-0.8	-1.0
TOTAL	100.0%	100.0%	100.0%
II OPERATING EXPENSES BY FUNCTIONAL AREA			
Instruction and Research	62.7%	62.3%	63.3%
Library	7.9	7.9	7.5
Academic Computing		3.3	3.2
Total Instruction, Library, Ac. Comp.	4.5 [1]	73.5	74.0
Non-Academic Computing		1.7	1.4
Student Services	2.5	2.8	3.0
Administration	5.9	5.5	5.5
Physical Plant	14.6	14.5	13.5 [2]
Other	1.9	2.0	2.6 [2]
TOTAL	100.0%	100.0%	100.0%
III TOTAL EXPENSES BY TYPE OF FUND			
Non-Capital			
Operating	79.0%	79.6%	79.4%
Ancillary Enterprises	7.8	8.1	8.0
Sponsored Research	11.2	10.3	10.7
Trust and Endowment	1.3	1.4	1.3
Other (including non-credit)	0.7	0.6	0.6
Total Non-Capital	100.0%	100.0%	100.0%
Total Funds			
Non-Capital	75.1%	77.6%	84.7%
Capital	24.9	22.4	15.3
	100.0%	100.0%	100.0%

1/ Not apportioned in 1970-71.

2/ Payments in lieu of municipal taxes classified as "Other" in 1972-73 were previously included in "Physical Plant". Total payments represented 0.6% of total operating expenses in 1972-73.

Table 2

TABLE II

AVERAGE ANNUAL PER CENT[1] WAGE INCREASES IN BASE RATES ESTABLISHED BY COLLECTIVE BARGAINING SETTLEMENTS NEGOTIATED IN ONTARIO IN THIRD QUARTER OF 1973 BY INDUSTRY AND DURATION OF AGREEMENT[2]

Industry	All Agreements	One-Year[3] Agreements	Two-Year Agreements	Three-Year Agreements
All Industries	8.6	11.2	9.1	6.7
All Industries (Excluding Construction)	8.5	11.2	9.2	6.5
Manufacturing	8.1	-	9.7	6.4
Food and Beverage	11.4	-	11.4	-
Rubber	8.9	-	9.0	8.9
Textile	8.9	-	8.9	-
Knitting Mills	12.1	-	12.1	-
Clothing	7.7	-	-	7.7
Wood	12.3	-	12.3	-
Paper and Allied	9.2	-	9.2	-
Printing, Publishing and Allied	9.5	-	9.5	-
Metal Fabricating	9.3	-	9.3	-
Machinery	8.3	-	8.3	-
Transportation Equipment	4.7	-	-	4.7
Electrical Products	10.5	-	10.2	10.8
Non-Metallic Mineral Products	10.4	-	11.9	6.6
Petroleum and Coal Products	7.8	-	-	7.8
Chemical and Chemical Products	7.9	-	7.9	-
Non-Manufacturing (Excluding Construction)	9.2	11.2	8.2	8.3
Transportation	7.5	-	9.3	6.9
Communication	8.9	-	8.9	-
Wholesale Trade	10.2	-	-	10.2
Retail Trade	11.7	12.0	8.6	-
Education and Related Services	9.4	8.5	10.0	-
Health and Welfare Services	9.0	12.0	8.8	-
Services to Business Management	8.8	-	8.8	-
Personal Services	8.4	-	-	8.4
Federal Administration	6.6	5.7	6.8	-
Local Administration	6.9	-	6.9	-
Construction	8.9	-	9.1	7.5

1. The per cents are calculated on a compound basis and weighted by employee coverage.

2. Includes collective bargaining settlements covering 200 or more Ontario workers.

3. One-year agreements are those with a term of less than 18 months. Two-year agreements are those with a term of 18 to 29 months. Three-year agreements are those with a term of 30 months or more.

Research Branch
Ontario Ministry of Labour

Table 3 a

University of Guelph

COMPARATIVE PRICES 1972 and 1973

	Annual Purchases	Weighted Increase	Percentage of Total Purchases
Schedule A	$2,370,000	11.18%	39.50%
Schedule B	$ 657,000	15.37%	10.95%
Total Schedule A & B	$3,027,000	11.96%	50.45%

Total Purchases $6,000,000 - above sample = 50,45%

Major Purchase groups out of remaining $3,000,000 purchases

=	Books & Publications	$250,000
	Travel	$250,000
	Advertising	$ 40,000

8/11/73

Schedule A

Table 3 b

UNIVERSITY OF GUELPH

COMPARATIVE PRICES 1972 and 1973

(1) Annual purchases		(2) Estimated increase or decrease	(3) Weighted increase (col. 1 x col. 2)
$150,000	Furniture	+8%	$12,000
$150,000	Audio-Visual Equipment	+5%	7,500
$100,000	Animal Feeds	+25%	25,000
$300,000	Printing & Duplicating Supplies & Equipment	+5%	15,000
$100,000	Animal Supplies and Animal Care Equipment	+10%	10,000
$200,000	Housekeeping	+12%	24,000
$ 60,000	Stationery	+20%	12,000
$200,000	General Lab Supplies	-5% 1/	-10,000
$600,000	Lab Equipment	+8% to 25% (20% used)	120,000
$200,000	Electrical Equipment and Accessories	+3%	6,000
$250,00	Fuels	+15%	37,500
$ 60,000	Hardware	+10%	6,000
$2,370,000	out of $6,000,000 = 39.5% 2/		265,000

Weighted Average ($\frac{\$265,000}{\$2,370,000}$ x 100) = 11.18% increase

1/ Decrease results from a move to a system purchasing arrangement.

2/ This is a representative sample of the total $6 million purchases in these areas.

Table 3 c

Schedule B

COMPARATIVE PRICES 1972 and 1973

(University of Guelph)

Annual Purchases		Estimated Increase or Decrease	Weighted
$ 20,000	Food Processing Equipment	15%	30
$ 50,000	Photographic Supplies	10%	50
$ 50,000	Paper Products	12%	60
$ 31,000	Drafting Supplies	7%	21
$ 35,000	Athletic Equipment Supplies	15%	52
$ 50,000	Wearing Apparel	7%	35
$ 30,000	Textiles	15%	45
$ 28,000	Compressed Gases	11%	30
$ 60,000	Programmable Calculators	10%	60
$ 70,000	Pharmaceuticals	50%	350
$ 48,000	Building Materials	15%	72
$ 50,000	Mill Supplies	20%	100
$ 50,000	Plumbing, Heating & Refrigeration	10%	50
$ 60,000	Parts & Accessiories, Vehicles	5%	30
$ 25,000	Transportation	10%	25
$657,000			1,010

Weighted Average Increase = 15.37%

8/11/73

Table 3d

University of Waterloo

Price Escalation in Selected Operating Supplies

(1972-73 to 1973-74)

Item	% Increase	Approximate Annual Purchases
Heating, Gas	21.97	$245,000
Oil (Standby Bunker 6C)	16.66	250,000 gallons
Oil (Standby #2)	37.39	60,000 gallons
Uniforms (Textiles)	21.09	$5,000 - $6,000
Fine Papers	16.00	$100,000
Paper Towels & Toilet Tissue	10.00	$ 20,000
Stationery	20.00 - 21.00	$ 83,000
Animal Foods	13.63 - 82.97	
Transportation		
Canadian - Rail Express	11.11	
Canadian - Trunk Transport	18.75	
U.S. - Rail Express	58.91	
U.S. - Truck Transport	27.44	

Table 4

WHOLESALE PRICE INDEXES*

(1935-39 = 100)

Academic year	Month/ year	Total, principal components	% change	Non-farm products 1/	% change
	July 73	374.7	6.6	362.5	.9
73/4 to 74/5	May 73	351.5	15.0	359.2	14.4
72/3 to 73/4	May 72	305.7	5.1	314.1	3.8
71/2 to 72/73	July 71	291.0	1.7	302.6	3.0
70/71 to 71/2	July 70	286.0		293.7	
	CANSIM 601001			CANSIM 601010	

* from Table 2, Section 5, Canadian Statistical Review

1/ consists of general wholesale index less animal products and vegetable products component group.

Table 5

AVERAGE WEEKLY WAGES AND SALARIES, Ontario, in $*

(1961 = 100)

	Month/ year	Average Weekly Wages and Salaries 1/	Percentage change
73/4 to 74/5	May 73	164.51(p)	7.7
72/3 to 73/4	May 72	152.76	5.8
71/2 to 72/3	July 71	144.33	9.1
70/1 to 71/2	July 70	132.25	
		CANSIM 1501	

* from Table 13, Section 4, Canadian Statistical Review.

1/ in non-durable and durable manufacturing.

Table 6

CONSUMER PRICE INDEXES *

(1961 = 100)

Academic year	Month/ year	All items 1/	% change	Total goods 2/	% change	Total services	% change
	July 73	151.0		143.0		168.1	
			1.8		2.1		1.1
73/4 to 74/5	May 73	148.4		140.1		166.2	
			7.3		7.8		6.1
72/3 to 73/4	May 72	138.3		130.0		156.7	
			3.1		2.9		8.9
71/2 to 72/3	July 71	134.1		126.3		143.9	
			2.8		1.9		3.4
70/1 to 71/2	July 70	130.5		124.0		139.2	
	CANSIM 602001			CANSIM 602585		CANSIM 602653	

* from Table 4, Section 5, Canadian Statistical Review.

1/ "all items" includes food, total housing (shelter + household operation), clothing, transportation, health & personal care, recreation, education, reading, tobacco, and alcohol.

2/ "total goods" includes durable, semi-durable, and non-durable (the latter includes a constant-weighted food component).

Note: Total goods plus total services do not add up to 100%; the portion of shelter which includes taxes and mortgage interest, and amounts to 8%, is excluded.

Table 7

IMPLICIT PRICE INDEXES, GROSS NATIONAL EXPENDITURE 1/ (1961 = 100)

Government current expenditure on goods and services;
Gross national expenditure - total;

Academic year	Year	Quarter	Govt. current expenditure on goods & services	% change	Gross national expenditure - total	% change
			(1)	(2)	(3)	(4)
1969/70 to 70/71	69	3	156.7	5.9	128.8	4.3
1970/71 to 71/72	70	3	165.8	2.8	134.3	3.1
1971/72 to 72/73	71	3	170.5	4.6*	138.4	3.6*
1972/73 to 73/74	72	2	178.4		143.4	
	72	4	186.1	6.3**	146.3	3.5**
	73	1	189.6		148.5	
	73	2	193.1E	8.2EE	150.7E	5.1EE
			CANSIM 40482		CANSIM 40514	

1/ From Section 3, Table 1.8, Canadian Statistical Review.

* For 3 Quarters only in order to be comparable to the 10-month academic year in 1971/72.

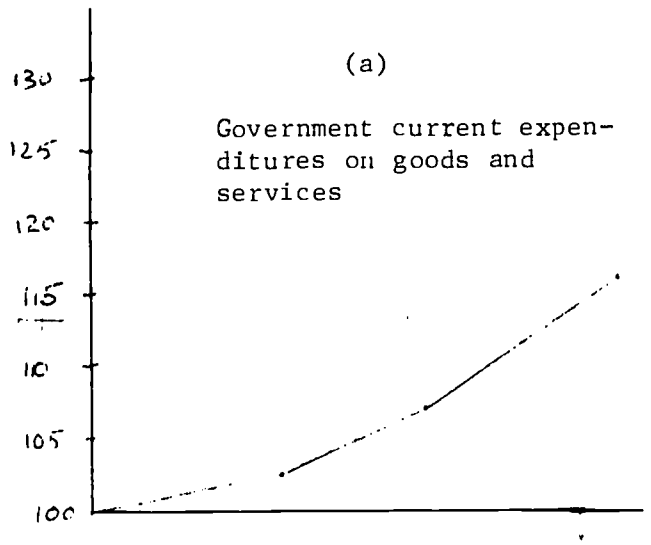
** For 3 Quarters only.

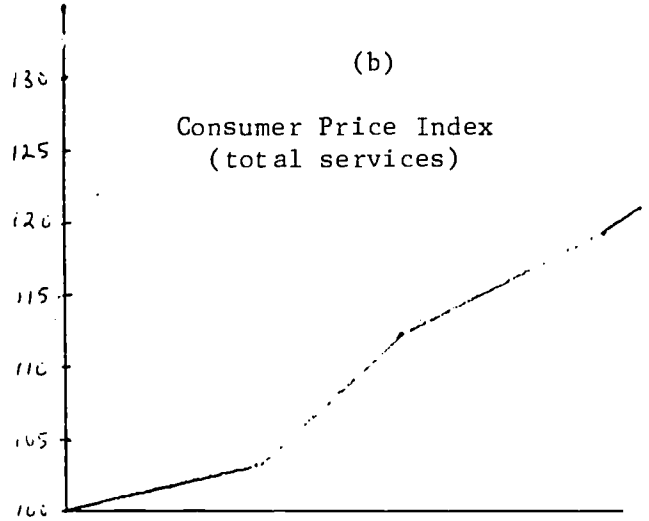
E Figures estimated upon increase from fourth Quarter, 1972, to first Quarter, 1973.

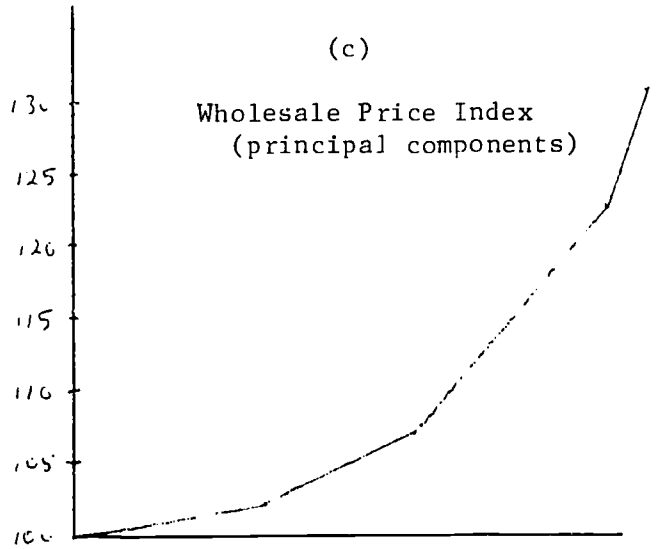
EE Estimated increase from second Quarter, 1972, to second Quarter, 1973.

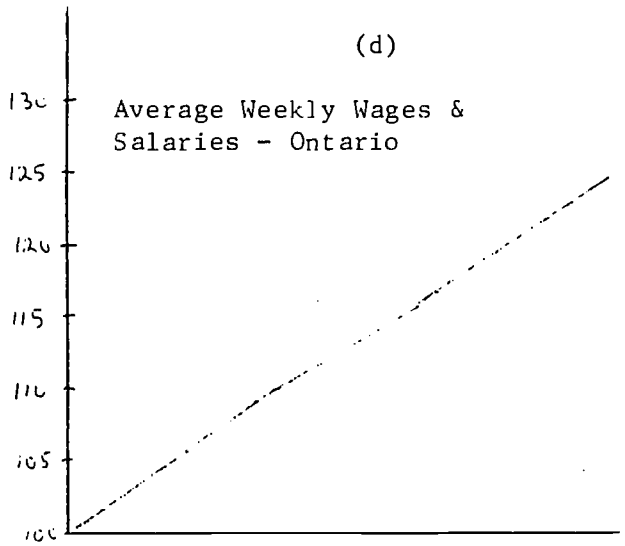
Source: National Income and Expenditure Accounts (13-001), Statistics Canada.

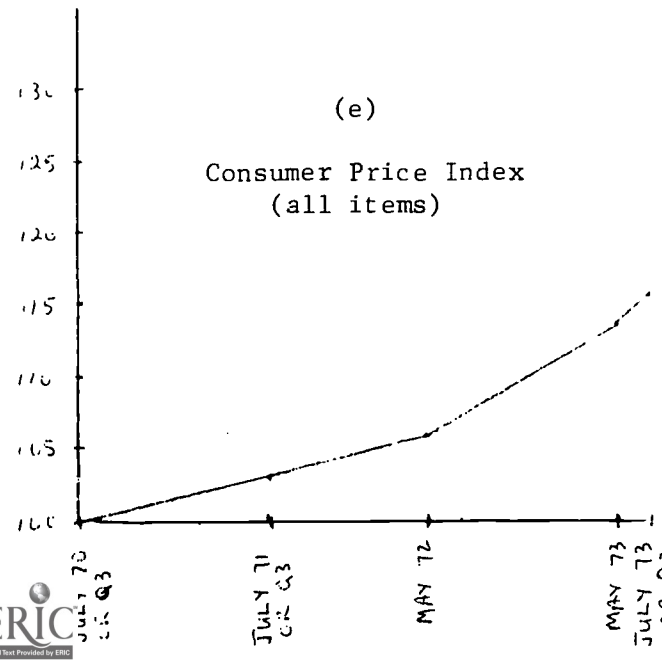
Charts a - f

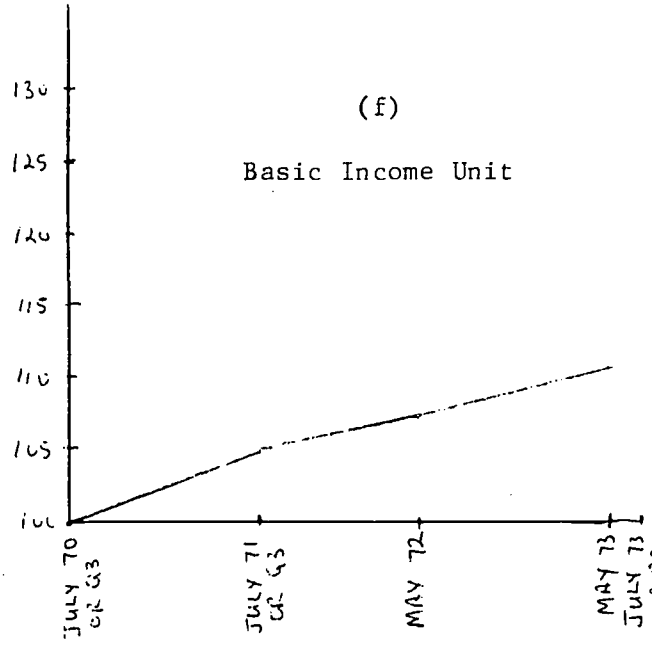

(a)
Government current expenditures on goods and services
130
125
120
115
110
105
100


(b)
Consumer Price Index
(total services)
130
125
120
115
110
105
100


(c)
Wholesale Price Index
(principal components)
130
125
120
115
110
105
100


(d)
Average Weekly Wages &
Salaries - Ontario
130
125
120
115
110
105
100


(e)
Consumer Price Index
(all items)
130
125
120
115
110
105
100
JULY 70
Q2 Q3
JULY 71
Q2 Q3
MAY 72
MAY 73
JULY 73
Q2 Q3


(f)
Basic Income Unit
130
125
120
115
110
105
100
JULY 70
Q2 Q3
JULY 71
Q2 Q3
MAY 72
MAY 73
JULY 73
Q2 Q3

APPENDIX A

EFFECT OF SLIP-YEAR IMPLEMENTATION

The slip-year method, where current-year funds are based on prior year's BIUs, was introduced for funding in 1973-74 as a method of providing universities with knowledge of their income prior to the start of the university fiscal year. It is also seen as a mechanism that gives universities time to absorb the financial impact of unanticipated enrolment shortfalls.

The particular characteristics of the method are that last year's BIUs are used for counting purposes, but they are funded at the current year's BIU value. In certain professional schools considered to be in a growth situation, such as Medicine, Dentistry, Veterinary Medicine, etc., current-year BIUs rather than the previous year's units were used. For equity, this arrangement must be continued in the future until planned growth levels are reached. Formula fees are calculated on the previous year's enrolment so that actual fee revenue would be higher if there was growth. It was argued in the COU Brief to CUA in 1972 that an amount for anticipated growth would be built into the value of the BIU for 1973-74 to compensate for the move to the slip-year system. This amount did not materialize except for the case of the professional schools.

What are the effects of the implementation of this system? The effects are related to (a) the future enrolment patterns in universities - growth, decline, or static enrolment, and (b) the view of the operation of the university system as for a fixed time period or as an ongoing system. To illustrate this consider some possible enrolment patterns for a university over a five-year time period:

Case	Year 1	Year 2	Year 3	Year 4	Year 5
1	15,000	16,000	17,000	18,000	19,000
2	15,000	16,000	17,000	16,000	16,500
3	15,000	15,200	15,250	15,150	15,150
4	15,000	15,000	14,500	14,750	14,900
5	15,000	14,750	14,500	14,500	14,500

Assuming constant dollars over this five-year time period and assuming further that the value of the BIU is $1 and that the effect of fees is ignored, we can then compare the total dollars received in years 2 through 5

under the current-year funding plan and the slip-year funding plan. By making such a comparison, we are assuming that we are looking at the operation of the university system within a fixed time period, an assumption which will be discussed further below.

	Total dollars received in years 2 - 5	
Case	Current-year financing	Slip-year financing
1	$70,000	$66,000
2	65,500	64,000
3	60,750	60,600
4	59,150	59,250
5	58,250	58,750

In a situation where a university is growing throughout the whole period (case 1), the university receives $1,000 less in year 2 under the slip-year than under current-year financing, and continues to receive $1,000 less each remaining year of the period. In case 2, the same growth occurs as in case 1 until after year 3 when enrolment drops suddenly but picks up again in year 5. In this case, the university receives the $1,000 less in the first year, as in case 1, but recoups some of this "loss" in year 4 when it experiences an enrolment decline. Total dollars received in the time period are still less under the slip-year method than under the current-year method, but not to the same degree as in case 1. Relatively stable enrolment over the period is pictured in case 3. In this case, the difference in total dollars received under the two methods is negligible. Only in cases 4 and 5 where we have declining enrolments over most of the five-year period does the slip-year method provide more funds than the current-year method.

Although this example has been carried out in constant dollars, the amount by which the value of the BIU is below the inflation rate facing the universities in a particular year can affect the results. Therefore, to the extent that universities grow, there is a "saving" to government in that particular period by using the slip-year method.

It is more reasonable to assume that the university system is an ongoing one, so that the enrolment gains or losses in any year will always be reflected in the funding of the following year under the slip-

year method. If the above savings are kept in reserve (unlikely) for the situation of declining enrolment, the savings would be used up at a later time. Under these circumstances, there is no monetary gain or loss in moving from the current-year funding method to slip-year financing.

There is one situation where the system might be viewed as operating for a fixed time period: If a new operating grants formula is introduced in a future year without considering the enrolment of the previous year, it would be as though the slip-year system had operated for a fixed time period. In this case, if there had been a general growth pattern in enrolment, universities could lose heavily if no proper means of phase-in were implemented by government. Care must be taken to avoid such a move.