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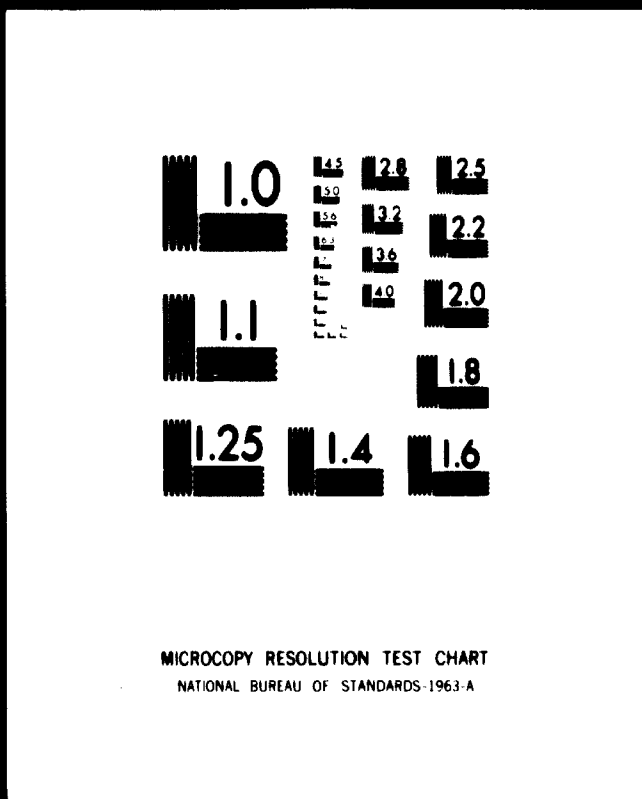
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STUDY OF COST FACTORS OF THE
UNIDO FELLOWSHIP PROGRAMS, 1/

1967 - 1973

by
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PREFACE

The objective of UNIDO is to promote the industrialisation of developing countries. According to UNIDO, assistance is provided in the organisation and implementation of training programmes for technical and other appropriate categories of personnel. The UNIDO Fellowship Programme provides individual and group training for those nationals of developing countries who hold a key position in priority areas of their home industries so that their training is likely to have an extensive multiplier effect.

Since UNIDO's inception in 1967, there has been an increase in the number of individual fellowships as well as in the diversity of the specific training needs. A study of the actual cost structure of these programmes was undertaken to provide information essential to future planning and programming. The results of the study are presented in this Report.

UNIDO is pleased to have been able to provide this information to the member States. The study was carried out by the Industrial Training Centre, UNIDO, Vienna.

UNIDO-1971

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CHAPTER ONE

INTRODUCTION

Of the 1,138 fellowships completed as of 30 June 1973, a sample of 179 fellows was taken with maximum representation of all major cost factors. Only those costs that were paid for initially or refunded by the United Nations have been taken into account in computing costs. These include the following:

- a) International travel - travel to and from the home country and travel between host countries;
- b) Internal travel - travel within the host country or countries;
- c) Travel stipend - or non-residential stipend given for the first month of the fellowship and thereafter if the fellow travels;
- d) Residential stipend;
- e) Book allowance;
- f) Insurance;
- g) Final report typing; and
- h) Training costs - those costs reimbursed by the United Nations to the governments, enterprises or institutions concerned. They are as follows:
 - i) Preparation of lectures;
 - ii) Attendance - management (absences, supervisors, director);
 - iii) Fees of translators, interpreters, lecturers;
 - iv) Training aids;
 - v) Material-equipment cost (including depreciation, loss of production);
 - vi) Leasing of premises;
 - vii) Meals, laboratory visits, etc; and
 - viii) Programme preparation and organisation.

The following data relevant to the over-all cost or to some individual cost factor were noted for each fellow:

- a) Field of training;
- b) Type of training;
- c) Host and home countries; and
- d) Training time.

The fields of training have been established in accordance with UNIDO document "Programme, Programme Components and Specific Activities".

As to type of training, UNIDO distinguishes between:

- a) Non-institutional training carried out either in an enterprise or in an agency or similar body whose major activity is not training, e.g. banks, Chambers of Commerce.
- b) Institutional training carried out either in an academic body or in other training institutions.

Moreover, the fellowships were categorized as follows:

Category A - Substantial training performed in one, two, three or four bodies;

Category B - Substantial training performed in one, two, three or four bodies as well as short visit(s) to other bodies;

Category C - Short visits to different bodies (study tour).

The results of this study warrant a separation of the fellows placed within Europe and those placed outside of Europe. Of the 179 fellowships selected for study, 144 fellows spent the major part of their training in host facilities in Europe while 35 fellows were placed in facilities located outside of Europe. Table I shows the distribution of the placements and their average duration in the major host countries. 1/

For statistical purposes, cost figures for 1967 - 1968 and for 1972 - 1973 often have been combined because 1967 and 1973 generally provide too small numbers for analysis.

1/ A country with more than five per cent of the placements is considered a major host country.

Table 1 ^{2/}

Selected Fellowship Placements
1967 - 1973

I. No. of placements
II. Average duration (months)

Host country	1967 - 1968		1969		1970		1971		1972 - 1973		Total	
	I	II	I	II	I	II	I	II	I	II	I	II
UK	6	5.1	6	5.4	9	5.8	10	2.5	13	3.5	44	4.2
Scandinavia ^{2/}	2	1.8	2	4.3	8	4.1	6	2.3	8	1.7	26	2.8
USA	1	3.0	2	7.5	6	6.5	6	4.5	9	4.1	24	4.8
Italy	1	3.0	1	5.5	3	2.8	10	3.2	9	2.2	24	2.8
Netherlands	2	6.6	2	3.0	5	5.7	6	4.7	6	3.5	21	4.6
Germany, Fed. Rep. of	1	3.0	1	3.0	4	2.9	6	2.2	7	2.7	19	2.6
France	2	6.3	-	-	4	1.8	8	3.6	4	3.2	18	3.4
Belgium	-	-	1	6.0	5	2.8	3	2.7	6	4.4	15	3.6
Austria	-	-	3	1.5	3	6.1	3	1.1	4	0.4	13	2.1
Switzerland	2	1.8	1	3.0	2	2.5	6	1.3	2	0.9	13	1.6

^{2/} The overall total is calculated on the basis of each single case and not on the basis of annual averages as given in this table.

^{2/} Denmark, Finland, Norway, Sweden.

Table 2

**Cost factors, Selected Fellowships
Within Europe, 1967 - 1973
(in US\$ and percentages)**

	1967- 1968	1969	1970	1971	1972- 1973	Overall costs (in US\$)	Overall costs (in per- centage)
A. Cost factors:							
International travel	4,671	4,359	12,849	16,515	21,795	60,189	19.2
Internal travel	637	542	1,822	1,825	1,905	6,731	2.2
Travel stipend	5,103	5,183	15,421	20,778	21,753	68,238	21.8
Residential stipend	12,008	13,324	37,573	29,871	39,448	82,224	42.2
Book-allowance	600	600	1,750	1,440	1,570	5,960	1.9
Insurance	-	54	160	379	215	808	0.3
Final report typing	120	130	400	380	460	1,490	0.5
Training costs	1,731	2,482	6,121	7,217	18,715	36,266	11.6
Medical expenses	456	29	93	242	254	1,074	0.3
Miscellaneous	-	-	-	-	80	80	-
TOTALS	25,326	26,703	76,189	78,647	106,195	313,060	100
B. Average:							
Percentage per year	8.1	8.7	24.6	24.4	33.9	100	
No. of fellows	12	13	36	38	45	144	
Average cost per fellow (US\$)	2,110	2,054	2,116	2,070	2,360	2,174	

CHAPTER 2 COSTS OF SELECTED FELLOWSHIPS CARRIED OUT WITHIN EUROPE

Table 2 gives the total expenditures for all cost factors in connexion with the selected fellowships carried out within Europe for the period 1967 - 1973.

Individual Cost Factors

International travel

In some cases travel was subsidised in full or in part by the home government as can be seen in table 3.

Table 3

International Travel Subsidy, Selected Fellowships Within Europe, 1967 - 1973

Year	No. of fellows	No. fellows travel paid in full by home gov't	No. fellows travel paid in full by UN	No. fellows travel paid in part by home gov't
1967	3	-	-	3
1968	9	-	2	7
1969	13	2	1	10
1970	36	11	3	22
1971	38	9	1	28
1972	40	4	1	35
1973	5	1	-	4
TOTAL	144	27	8	109

Estimates of expenditures involved in international travel have been made in a few cases where travel bills have not been received.

Data in table 4 give the average international travel cost expressed as:

- a) average cost per fellow based on the number of selected fellowships within Europe; and
- b) average cost per fellow based on the number of reported cases.

Table 4

Estimated Cost of International Travel,
Selected Fellowships Within Europe, 1967 - 1973
(in US\$)

<u>Year</u>	<u>Average cost/no . fellows</u>	<u>Average cost/no. reported cases</u>
1967	374	374
1968	394	443
1969	335	415
1970	357	559
1971	435	579
1972	507	579
1973	306	383
<u>Overall Average</u>	<u>418</u>	<u>537</u>
1967 + 1968	389	425
1972 + 1973	484	559

Internal travel

Expenditures for internal travel were reported in 116 cases. Data on these costs are given in table 5.

Table 5

Actual Cost of Internal Travel, Selected
Fellowships Within Europe, 1967 - 1973
(in US\$)

<u>Year</u>	<u>Average cost/no. fellows</u>	<u>Average cost/no. reported cases</u>
1967	55	82
1968	52	67
1969	42	49
1970	51	57
1971	48	57
1972	44	58
1973	32	81
Overall	47	58
1967 + 1968	53	71
1972 + 1973	42	60

Stipends

Travel stipends were given for all fellows with only one recorded exception.

There were twenty-two (22) reported cases where no residential stipend was paid. Residential stipend and travel stipends are in some ways complementary. (For example, when no travel stipend was found, it was assumed that the stipend was paid at the residential rate and vice versa.) Thus data for both stipends may be combined as shown in table 6.

Table 6

Actual Cost of Travel and Residential Stipends,
Selected Fellowships Within Europe, 1967 - 1973
(in US\$)

<u>Year</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>Overall</u>
Average travel stipend	527	391	399	428	547	482	498	474
Average residential stipend	118	1,295	1,025	1,044	785	896	719	918
Combined stipends	645	1,686	1,424	1,472	1,333	1,378	1,217	1,392

Book allowance

There were five cases where no book allowance was given. Data on the actual cost of book allowances for the period 1967-1973 are given in table 7

Table 7

Actual Cost of Book Allowance, Selected Fellowships Within Europe, 1967 - 1973 (in US\$)

<u>Year</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>Overall</u>	<u>1967+68</u>	<u>1972+73</u>
Average Cost/ No. fellows	20	50	46	49	38	36	28	41	50	35
Average Cost/ reported cases	20	60	46	49	40	39	35	43	50	35

Insurance

The United Nations had to bear the cost of insurance of diverse types in a substantial number of cases. Data on insurance cost for the period 1967 - 1973 are given in table 8.

Table 8

Actual Insurance Cost Paid by the United Nations,
Selected Fellowships Within Europe, 1967 - 1973
(in US\$)

Year	No. of fellows	No. of cases UN paid	Average cost/ no.fellows	Average cost/no. reported cases
1967	3	-	-	-
1968	9	-	-	-
1969	13	1	4.1	54
1970	36	4	4.4	40
1971	38	9	10.0	42
1972	40	6	4.3	29
1973	5	1	8.4	42
Overall	144	21	5.5	38
1967+68	12	-	-	-
1972+73	45	7	4,8	31

Final report typing

A lump sum of US\$ 10 is generally provided with the first payment to cover the cost of typing the final report; occasionally this amount is increased. No exceptions were found. Data on cost of final report typing for the period 1967 - 1973 are given in table 9.

Table 9

Actual Typing Cost, Selected Fellowships
Within Europe, 1967 - 1973 (in US\$)

Year	1967	1968	1969	1970	1971	1972	1973	Overall	1972-1973
Average Cost	10,0	10,0	10,0	11,1	10,0	10,0	12,0	10,3	10,2

Training costs 2/

Data on the various training costs are given in table 10.

2/ See Chapter 1 for description of these costs

Table 10
Actual Training Costs, Selected
Fellowships Within Europe, 1967 - 1973
(in US\$)

Year	Number of Fellows	Number of reported cases	Average cost/ no. of fellows	Average cost/no. of reported cases
1967	3	-	-	-
1968	9	5	192	289
1969	13	4	191	320
1970	36	10	170	612
1971	38	11	190	656
1972	40	18	402	892
1973	5	3	530	884
Overall	144	52	252	697
1967+68	12	5	144	288
1972+73	45	21	416	891

Details of training costs were available in a number of cases, thus allowing a division of training costs into a) theoretical training and b) practical training.

Theoretical training included such items as: a) language courses (mentioned frequently); b) university fees; and c) fees for participation in conferences.

Practical training included: a) field work; b) excursions and/or visits to plants; and c) on-the-job training.

Costs involved with theoretical training were found in thirty-two (32) cases. (See table 11.) The costs involved with practical training have been estimated by means of subtraction. These combined data are given in table 12.

Table 11
Actual Theoretical Training Costs, Selected
Fellowships Within Europe, 1967 - 1973 (in US\$)

Year	Number of Fellows	Number of reported cases	Total cost	Average cost/no. of reported cases
1967-68	12	4	1,292	323
1969	13	4	2,325	581
1970	36	7	4,439	634
1971	38	8	2,837	355
1972	40	7	6,624	946
1973	5	2	2,066	1033
Overall	144	32	19,583	612

Table 12
**Estimated Theoretical and Practical
 Training Costs, Selected Fellowships within
 Europe, 1967 - 1973 (in US\$)**

	No. of fellows	No. of re-reported cases	Total cost	Average cost/ no. of reported cases
Training:	144	52	36,266	697
- theoretical		32	19,583	612
- practical		20	16,683	834

Medical expenses

Twenty-four (24) fellows claimed medical expenses and were reimbursed by the United Nations. Data on medical expenses for the period 1967-1973 are given in table 13.

Table 13
**Actual Medical Expenses, Selected Fellowships
 Within Europe, 1967 - 1973 (in US\$)**

Year	No. of fellows	No. of re-reported cases	Average cost/ no. of fellows	Average cost/no. of reported cases
1967	3	-	-	-
1968	9	3	51	152
1969	13	2	2.2	14
1970	36	5	2.6	19
1971	38	6	6.4	40
1972	40	8	6.4	32
1973	5	-	-	-
Overall	144	24	7.5	45

Miscellaneous

Three cost figures remain that could not be categorized in the above sections. These are:

- a) Administrative costs -- so termed in two identified cases, amounting to \$32 and \$71 respectively and
- b) Unidentified refund found in only one instance expressed as a negative cost for UNIDO of -\$23.

Thus the total of miscellaneous costs is \$80.

Actual Costs Per Man/Month

General results

Table 14

Actual Cost Per Man/Month and Training Time,
Selected Fellowships Within Europe, 1967 - 1973

Year	Average cost per m/m (in US\$)	Average training time per fellow (in months)
1967	685	2.2
1968	413	7.6
1969	418	5.3
1970	428	5.1
1971	554	4.2
1972	705	3.8
1973	1,143	3.1
Overall Average	566	4.5
1967+1968	481	5.8
1972+1973	754	3.7

Cost per man/month by type of training

Table 15

Actual Cost Per Man/Month by Type of Training,
Selected Fellowships Within Europe, 1967 - 1973
(in US\$)

Year	<u>Institutional training</u>		<u>Non-institutional training</u>		Over- all
	body	Other training institution	Enterprise	Agency or similar body	
1967-1968 (cost m/m)	422	576	495	468	481
1969 (cost m/m)	398	488	383	488	418
1970 (cost m/m)	406	501	401	450	428
1971 (cost m/m)	553	531	533	620	554
1972-1973 (cost m/m)	864	824	645	787	754
(cost m/m)	540	623	520	632	566
Overall (no. fellows)	34	24	55	31	144

Cost per man/month according to category^{3/}

Table 16
Number of Fellowships by Category of Training,
Selected Within Europe, 1967-1973

Year	Category		
	A	B	C
1967	1	-	2
1968	2	7	-
1969	5	7	1
1970	8	22	6
1971	13	21	4
1972	21	15	4
1973	2	2	1
TOTAL	52	74	18

Table 17
Actual Cost per Man/Month and Training
by Category of Training, Selected
Fellowships Within Europe, 1967-1973

Category	Average cost per m/m (in US\$)	Average training time per fellow (in months)
A	557	4.3
B	477	5.3
C	959	2.0
Overall	566	4.5

Cost per man/month, per placement month^{4/} by host country

Of the 144 fellows, there was a total of 201 placements: 103 fellows were placed in one host country; 41 fellows were placed in more than one host country. Tables 18 and 19 show the cost per placement/month as reported in each major European host country, and the cost for all European host countries, respectively.

^{3/} See Chapter I for description of categories of training.

^{4/} "Cost per man/month per placement" is hereafter referred as "Cost per placement month".

Table 18
Actual Cost per Placement/Month in Major European Host Countries, Selected Fellowships, 1967 - 1973

Host Country	No. of placements	Average duration (in months)	Average Overall average cost per placement/month (in US\$)	Average yearly cost (in US\$)				
				1967-1968	1969	1970	1971	1972-1973
UK	44	4.2	499	331	301	433	549	674
Scandinavia ^{a/}	26	2.8	453	763	298	304	450	565
Italy	24	2.8	327	156	190	423	294	365
Netherlands	21	4.6	496	512	380	415	390	703
Federal Republic of Germany	19	2.6	474	552	407	266	543	532
France	18	3.4	307	206	-	250	251	528
Belgium	15	3.6	492	-	346	371	350	689
Austria	13	2.4	216	-	236	311	136	193
Switzerland	13	1.6	208	121	391	250	171	276

a/ Denmark, Finland, Norway, Sweden

Table 19
Actual Cost Per Placement/Month for All European Host Countries, Selected Fellowships, 1967 - 1973

Host Country	No. of placements	Average duration (in months)	Average cost per placement/month (in US\$)	Average yearly cost (in US\$)				
				1967-1968	1969	1970	1971	1972-1973
European host countries	201	3.2	406	360	302	342	363	530

Cost per man/month by field of training 5/

Tables 20 through 23 give data on the costs per man/month and on training time, by fields of training corresponding to the activities of the three substantive divisions of UNIDO.

5/ Fields of training have been established in accordance with UNIDO document "Programme, programme components and specific activities".

Table 20

Actual Cost Per Man/Month and Training Time of Selected Fellowships Within Europe, by Field of Training Corresponding to UNIDO Substantive Divisions, 1967 - 1973

Division	No. of fellows	Average cost per m/m (in US\$)	Average training time per fellow (in months)
ITD	108	518	4.3
ISID	22	763	5.1
IPPD	14	551	5.1
Overall	144	566	4.5

Table 21

Actual Cost Per Man/Month and Training Time of Selected Fellowships Within Europe, by Field of Training Corresponding to ITD, 1967 - 1973

Section	Selected Activity	No. fellows	Average cost per m/m (in US\$)	Average training time per fellows (in months)
Engineering ind (30.1)		36	136	4.0
	Machinery (30.1.02)	12	448	3.3
	Eleo.mach.+ appar. (30.1.03)	15	407	4.5
	Trans.equip (31.104)	4	427	2.9
Metallurgical ind. (30.2)		19	612	4.0
	Iron+steel (30.203)	10	717	4.8
	Creat.+trans.of metal.know-how (30.2.05)	5	375	3.8
Build.materials ind. (30.3)		10	488	6.7
	Heavy olay, ceramics, glass+ allied pro. (30.3.02)	4	436	7.8
	Construction (30.3.03)	4	572	4.2
Chemical, pharma.+ pulp+paper (30.4)		19	514	3.6
	Basic chemicals (30.4.01)	12	519	3.5
	pulp+paper (30.4.03)	5	559	3.6
Fert.,pesticides+ petro-chem. (30.5)		1	614	3.8

Table 21 (continued)

	No. of fellows	Average cost per m/m (in US\$)	Average training time per fellow (in months)
Light ind. (30.6)	15	572	5.5
Textiles (30.6.01)	8	547	6.0
Food (30.6.02)	5	541	5.9
Gen. indust. tech. (30.7)	8	694	3.3
Industrial design (30.7.03)	7	670	3.3
OVERALL	108	518	4.3

Table 22

Actual Cost Per Man/Month and Training Time of Selected Fellowships Within Europe, by Field of Training Corresponding to ISID, 1967 - 1973

Section	Selected activity	No. of fellows	Average cost per m/m (in US\$)	Average training time per fellow (in months)
Industrial institutions (31.1)		6	515	5.0
	Standardisation quality control (31.1.02)	5	514	5.8
Industrial management and consulting services (31.3)		12	1,015	4.2
	Management techniques (31.3.02)	7	848	4.9
OVERALL		30	763	5.1

Table 23

Actual Cost Per Man/Month and Training Time
of Selected Fellowships Within Europe, by Field
of Training Corresponding to IPPD, 1967 - 1973

Section	Selected Activity	No. fellows	Average cost per m/m (in US\$)	Average training time per fellow (in months)
Industrial programming (32.1)		9	539	5.2
	Strategies, plans and policies for industrialization (32.1.01)	4	483	3.9
	Use of computers + math. tech. for ind. dev. (32.1.05)	3	487	7.2
Industrial financing + investment promotion (32.2)		2	421	6.0
	Industrial financing (32.2.02)	2	421	6.0
	OVERALL	14	551	5.1

CHAPTER THREE

COSTS OF SELECTED FELLOWSHIPS
CARRIED OUT OUTSIDE OF EUROPE

Thirty-five (35) fellows received their training in host facilities located outside of Europe; of this number twenty-one (21) fellows were placed in facilities in the United States. Although seven (7) fellows were placed in facilities in Europe as well as outside of Europe, they are included in this Chapter since the greater part of their training was carried out outside of Europe.

Table 24 gives the total expenditures for all cost factors in connexion with the selected fellowships carried out outside of Europe for the period 1967 - 1973.

Table 24
Estimated Cost Factors, Selected Fellowships
Outside of Europe, 1967 - 1973
(in US\$ and percentage)

	1967- 1968	1969	1970	1971	1972- 1973	Overall costs (in US\$)	Overall costs (in percentage)
A. Cost factors:							
International travel	1,720	2,599	3,874	9,975	13,684	31,852	22.0
Internal travel	192	52	2,230	1,474	2,041	5,989	4.1
Travel stipend	2,140	3,608	8,064	11,846	16,772	42,430	29.3
Residential stipend	3,579	4,030	8,822	7,025	14,805	38,261	26.4
Book-allowance						1,460	1.0
Insurances						15	
Final report typing						240	
Training costs	30	1,200	2,908	7,229	12,271	23,638	16.3
Medical expenses						401	
Miscellaneous						592	
TOTALS	7,661	11,489	25,898	37,559	59,573	144,878	100
B. Average:							
Percentage per year	5.4	8.1	18.2	26.4	41.9	100	
No. of fellows	2	3	6	9	15	35	
Average cost per fellow (US\$)	3,900	3,930	4,394	4,243	4,049	4,139	

Individual Cost Factors

International travel

Data on travel subsidies and on cost for international travel are given in tables 25 and 26, respectively.

Table 25

International Travel Subsidy, Selected Fellowships
Outside of Europe, 1967 - 1973

Year	No. of fellows	No. fellows travel paid in full by home gov't	No. fellows travel paid in full by UN	No. fellows travel paid in part by home gov't
1967-1968	2	-	1	1
1969	3	1	2	-
1970	6	1	2	3
1971	9	-	9	-
1972-1973	15	1	14	-
TOTAL	35	3	28	4

Table 26

Actual Cost of International Travel,
Selected Fellowships Outside of Europe, 1967-1973
(in US\$)

Year	Average cost No. fellows	Average cost No. reported cases
1967-1968	860	1,147
1969	866	1,299
1970	646	1,107
1971	1,108	1,108
1972-1973	912	977
OVERALL	910	1,062

Internal travel

Internal travel expenses were recorded for twenty-nine (29) fellows. Data on internal travel are given in table 27.

Table 27

Actual Cost of Internal Travel, Selected Fellowships
Outside of Europe, 1967 - 1973 (in US\$)

Year	No. of fellows	No. of re-reported cases	Average cost no. of fellows	Average cost no. reported cases
1967-1968	2	1	96	192
1969	3	3	17	17
1970	6	6	372	372
1971	9	7	164	211
1972-1973	<u>15</u>	<u>12</u>	<u>136</u>	<u>170</u>
OVERALL	35	29	171	206

Stipends

Costs for travel and residential stipend are given in table 28.

Table 28

Actual Cost of Travel and Residential Stipends,
Selected Fellowships Outside of Europe, 1967 - 1973
(in US\$)

Year	1967-1968	1969	1970	1971	1972-1973	Overall
Average travel stipend	1,070	1,203	1,344	1,316	1,118	1,212
Average residential stipend	1,789	1,343	1,470	781	987	1,093
TOTAL	<u>2,859</u>	<u>2,546</u>	<u>2,814</u>	<u>2,097</u>	<u>2,105</u>	<u>2,305</u>

Book allowance

Data are given in table 29,

Insurance

Data are given in table 29,

Final report typing

Data are given in table 29,

Training costs^{6/}

Data on training costs are given in table 30 below. A comparison has been possible between costs for theoretical and for practical training. These cost figures are given in table 31.

Medical expenses

Data are given in table 29

Miscellaneous expenses

Data are given in table 29

Table 29

Actual Costs for Some Individual Factors,
Selected Fellowships Outside of Europe,
1967 - 1973 (in US\$)

Cost factor	No of repor- ted cases	Average cost/ no. fellows	Average cost/ no. reported cases
Book allowance	33	42	44
Insurance	1	15	15
Final report typing	14	7	17
Medical	5	11.5	80
Miscellaneous	2	17	296

Table 30

Actual Training Costs, Selected Fellowships
Outside of Europe, 1967 - 1973 (in US\$)

Year	No. of fellows	No. of re- ported cases	Average cost/ no. fellows	Average cost/ no. reported cases
1967-1968	2	1	15	30
1969	3	1	400	1,200
1970	6	5	485	582
1971	9	6	803	1,205
1972-1973	15	8	818	1,534
OVERALL	35	21	675	1,126

^{6/} See Chapter 1 for a description of these costs

Table 31

Estimated Theoretical and Practical Training Costs, Selected Fellowships Outside of Europe 1967 - 1973 (in US\$)

	No. of fellows	No. of re-reported cases	Total cost	Average cost/No. reported cases
Training	35	21	23,630	1,126
- theoretical		8	17,253	2,157
- practical		13	6,385	491

Actual Costs Per Man/Month

General results

Table 32

Actual Cost Per Man/Month and Training Time, Selected Fellowships Outside of Europe, 1967 - 1973

	Average cost per m/m (in US\$)	Average training time per fellow (in months)
1967-1968	611	7.5
1969	577	7.0
1970	895	5.9
1971	889	4.6
1972-1973	1,211	3.9
OVERALL	986	4.9

Cost per man/month by type of training

Table 33

Actual Cost Per Man/Month by Type of Training, Selected Fellowships Outside of Europe, 1967 - 1973 (in US\$)

	Academic body	Institutional training Other training institution	Non-institutional training Enterprise	Agency or similar body	OVER-ALL
No. of fellows	9	1	19	6	35
Cost per m/m	890	887	1,040	973	986

Cost per man/month by category^{1/}

Table 34

Number of Fellowships by Category of Training,
Selected Fellowships Outside of Europe, 1967 - 1973

Year	Category			TOTAL
	A	B	C	
1967-1968	-	2	-	2
1969	1	2	-	3
1970	1	3	2	6
1971	3	3	3	9
1972-1973 :	4	6	5	15
TOTALS	9	16	10	35

Table 35

Actual Cost Per Man/Month and Training Time by
Category of Training, Selected Fellowships Outside
of Europe, 1967 - 1973

Category	Total cost per m/m (in US\$)	Average cost per m/m (in US\$)	Average training time (in months)
A	5,647	627	4.7
B	14,703	919	6.6
C	14,143	1,414	2.4
OVERALL	34,493	986	4.9

^{1/} See Chapter 1 for description of categories of training.

Cost per placement/month by host country

Twenty-four (24) of the selected fellowships outside of Europe were carried out in the United States. Data on these costs are given in table 36.

For the thirty-five (35) fellows in this selected study, there was a total of 56 placements. These data are in table 37.

Table 36

Actual Cost Per Placement/Month in the United States, Selected Fellowships, 1967 - 1973

Year	No. of placements	Average duration (in months)	Average cost per placement/months (in US\$)
1967-1968	1	2.0	763
1969	2	7.5	657
1970	6	6.5	736
1971	6	4.5	808
1972-1973	9	4.1	1,371
OVERALL	24	4.8	987

Table 37

Actual Cost Per Placement/Month, Selected Fellowships Outside of Europe, 1967 - 1973

Year	No. of placements	Average duration (in months)	Cost per placement/month (in US\$)
1967-1973	56	3.1	616

Cost per man/month by field of training

Tables 38 through 41 give data on the costs per man/month and on training time of selected fellowships outside of Europe in fields of training corresponding to the activities of the three substantive divisions of UNIDO.

Table 38

Actual Cost per Man/Month and Training Time of Selected Fellowships Outside of Europe, by Field of Training Corresponding to UNIDO Substantive Divisions, 1967 - 1973

UNIDO Division	No. of fellows	Average cost per m/m (in US\$)	Average training time per fellow (in months)
ITD	23	1,002	4.6
IBID	8	974	6.1
IPFD	4	912	4.2
OVERALL	35	986	4.9

A. Industrial Technology Division

Table 39

Actual Cost Per Man/Month and Training Time of Selected Fellowships Outside of Europe, by Field of Training Corresponding to ITD, 1967 - 1973

Section	Selected Activity	No. fellows	Average cost per m/m (in US\$)	Average training time per fellow (in months)
Engineering ind. (30.1)	Machinery (30.1.02)	6	1,175	4.6
	Elec. mach. appar. (30.1.03)	2	876	6.0
		3	1,512	3.3
Metallurgical ind. (30.2)		3	931	3.5
Build. materials ind. (30.3)		3	1,079	4.1
	Heavy clay, ceramics, glass and allied pro. (30.3.02)	3	1,079	4.1
Chemical, pharm.+ pulp+paper (30.4)		2	617	9.0
	Basic chemicals (30.4.01)	2	617	9.0
Fert., pesticides + petro-chem. (30.5)		3	857	3.9
Light ind. (30.6)		4	1,293	2.6
	Food (30.6.02)	3	990	3.1
		2	670	7.5
Gen. indus. tech. (30.7)		2	670	7.5
	Industrial design (30.7.03)	2	670	7.5

B. Industrial Services and Institutions Division

Table 40

Actual Cost Per Man/Month and Training Time of Selected Fellowships Outside of Europe, by Field of Training Corresponding to ISID, 1967 - 1973

Section	Selected Activity	No. fellows	Average cost per m/m (in US\$)	Average training time per fellow (in months)
Industrial institutions (31.1)		2	847	5.1
Industrial management + consult. services (31.3)		4	1,246	8.4
	Management tech. (31.3.02)	3	1,205	10.5

C. Industrial Policies and Programming Division

Table 41

Actual Cost Per Man/Month and Training Time of Selected Fellowships Outside of Europe, by Field of Training Corresponding to IPPD, 1967 - 1973

Section	Selected Activity	No. fellows	Average cost per m/m (in US\$)	Average training time per fellow (in months)
Industrial programming (32.1)		2	1,059	4.0
	Use of computers + math. tech. for ind. dev. (32.1.05)	2	1,059	4.0
Ind. financing + invest. prom (32.2)		2	765	4.5

CHAPTER FOUR

COSTS OF TOTAL SAMPLE OF FELLOWSHIPS

The combined costs of all of the 179 selected fellowships have been calculated on the basis of data presented in previous chapters.

Table 42 shows the actual costs in connexion with the selected fellowships for the period 1967-1973.

Table 42

Cost Factors, Total Selected Fellowships
1967-1973 (in US\$ and percentage)

Cost factor	Total cost (US\$)	Total cost (%)	Average cost/ no. fellows	Average cost/ no. reported cases
International travel	92,041	20.1	514	648
Internal travel	12,720	2.8	71	88
Travel stipend	110,668	24.2	618	
Residential stipend	170,485	37.2	952	
Book allowance	7,420	1.6	41	43
Insurances	823	0.2	4.6	37
Typing cost	1,730	0.4	9.7	11
Training costs	59,904	13.1	335	821
Medical cost	1,475	0.3	8.2	51
Miscellaneous	672	0.1	3.7	134
OVERALL	457,938	100	2,558	

Training costs for theoretical and practical training in connexion with all selected fellowships are given in table 43, these data are based on those given in tables 11, 12 and 31.

Table 43

Estimated Theoretical and Practical Training Costs,
Total Selected Fellowships, 1967 - 1973 (in US\$)

	No. reported cases	Total cost	Average cost/ no. reported cases
Training:	73	59,904	821
- Theoretical	40	36,836	921
- Practical training	33	23,068	699

Actual Costs Per Man/Month

General results

Averages of cost per m/m and of training time for all selected fellowships are given in table 44. These data are based on those given in tables 14 and 32.

Table 44
Actual Cost Per Man/Month and Training Time, Total
Selected Fellowships, 1967 - 1973

Year	No. of fellows	Average cost per m/m (in US\$)	Average training time (in months)
1967-1968	14	499	6.0
1969	16	448	5.6
1970	42	494	5.2
1971	47	518	4.3
1972-1973	60	868	3.8
OVERALL	179	648	4.6

Cost per man/month by type of training

Costs per man/month by type of training are given in table 45; these data are based on those given in tables 15 and 33.

Table 45
Actual Cost Per Man/Month by Type of Training,
Total Selected Fellowships, 1967 - 1973

	No. of fellows	Average Cost per m/m
Academic body	43	616
Other training institution	25	627
Enterprise	74	652
Agency or similar body	37	694
OVERALL	179	648

Cost per man/month by category

Costs per man/month by category of training are given in table 46; these data are based on those given in tables 16, 17, 34 and 35.

Table 46

Actual Cost Per Man/Month by Category of Training, Total Selected Fellowships, 1967-1973

Category	No. of fellows	Average cost per m/m	Average training time (in months)
A	51	568	4.4
B	90	556	5.5
C	28	1,122	2.2
OVERALL	179	648	4.6

Cost per placement/month by host country

Costs per placement/month by host country are given in table 47; these data are based on those given in tables 18, 19, 36 and 37.

Table 47

Actual Cost Per Placement/Month in Each Major Host Country, Total Selected Fellowships, 1967-1973

Host country	No. of placements	Average duration (in months)	Average cost per placement/month (in US\$)
UK	44	4.2	499
Scandinavia ^{a/}	26	2.8	453
USA	24	4.8	907
Italy	24	2.8	327
Netherlands	21	4.5	496
Federal Rep. of Germany	19	2.6	474
France	18	3.4	307
Belgium	15	3.6	492
Austria	13	2.4	216
Switzerland	13	1.6	208
Others	40	-	-
OVERALL	257	3.2	452

^{a/} Denmark, Finland, Norway, Sweden.

Cost per man/month by field of training

Costs per man/month by fields of training as corresponding to UNIDO activities are given as follows:

- a) Table 48 covering all three Divisions; these data are based on those given in tables 20 and 38.
- b) Table 49 covering ITD; these data are based on those given in tables 21 and 39.
- c) Table 50 covering ISID; these data are based on those given in tables 22 and 40.
- d) Table 51 covering IPPD. these data are based on those given in tables 23 and 41.

Table 48

Actual Cost Per Man/Month and Training Time of Total Selected Fellowships by Field of Training Corresponding to UNIDO Substantive Divisions, 1967 - 1973

Division	No. of fellows	Average cost per m/m (US\$)	Average training time (in months)
ITD	131	603	4.4
ISID	30	819	5.4
IPPD	18	631	5.0
OVERALL	179	648	4.6

Table 49

Actual Cost Per Man/Month and Training Time of
Total Selected Fellowships by Field of Training
Corresponding to ETD, 1977 - 1978

Section	Specific Activity	No. of fellows	Average cost per (in US\$)	Average training time (in months)
Engineering industries (30.1)		42	528	4.1
	Machinery (30.10.2)	14	509	3.7
	Electrical mach. + app. ind. (30.1.03)	18	591	4.3
	Transport equipment (30.1.04)	5	425	3.5
Metallurgical Industries (30.2)		22	655	3.9
	Iron and steel (30.2.03)	10	717	4.8
	Creation + transfer of metal know-how (30.2.05)	5	375	3.8
Construction and bldg. materials (30.3)		13	625	6.1
	Heavy clay, ceramics, glass + allied products (30.3.02)	7	711	6.2
	Construction (30.3.03)	4	572	4.2
Chemicals, pharmaceuticals pulp + paper (30.4)		21	524	4.1
	Basic chemicals (30.4.01)	14	533	4.3
	Pulp and paper (30.4.03)	5	559	3.6
Fertilisers, pesticides + petrochem. (30.5)		4	796	3.8
Light industries (30.6)		19	723	4.9
	Textiles (30.6.01)	9	730	5.4
	Food (30.6.02)	8	710	4.9
General industrial techniques (30.7)		10	689	4.1
	Industrial design (30.7.03)	9	670	4.3
OVERALL		131	603	4.4

Table 50

Actual Cost Per Man/Month and Training Time of Total Selected Fellowships, by Field of Training Corresponding to ISID, 1967 - 1973

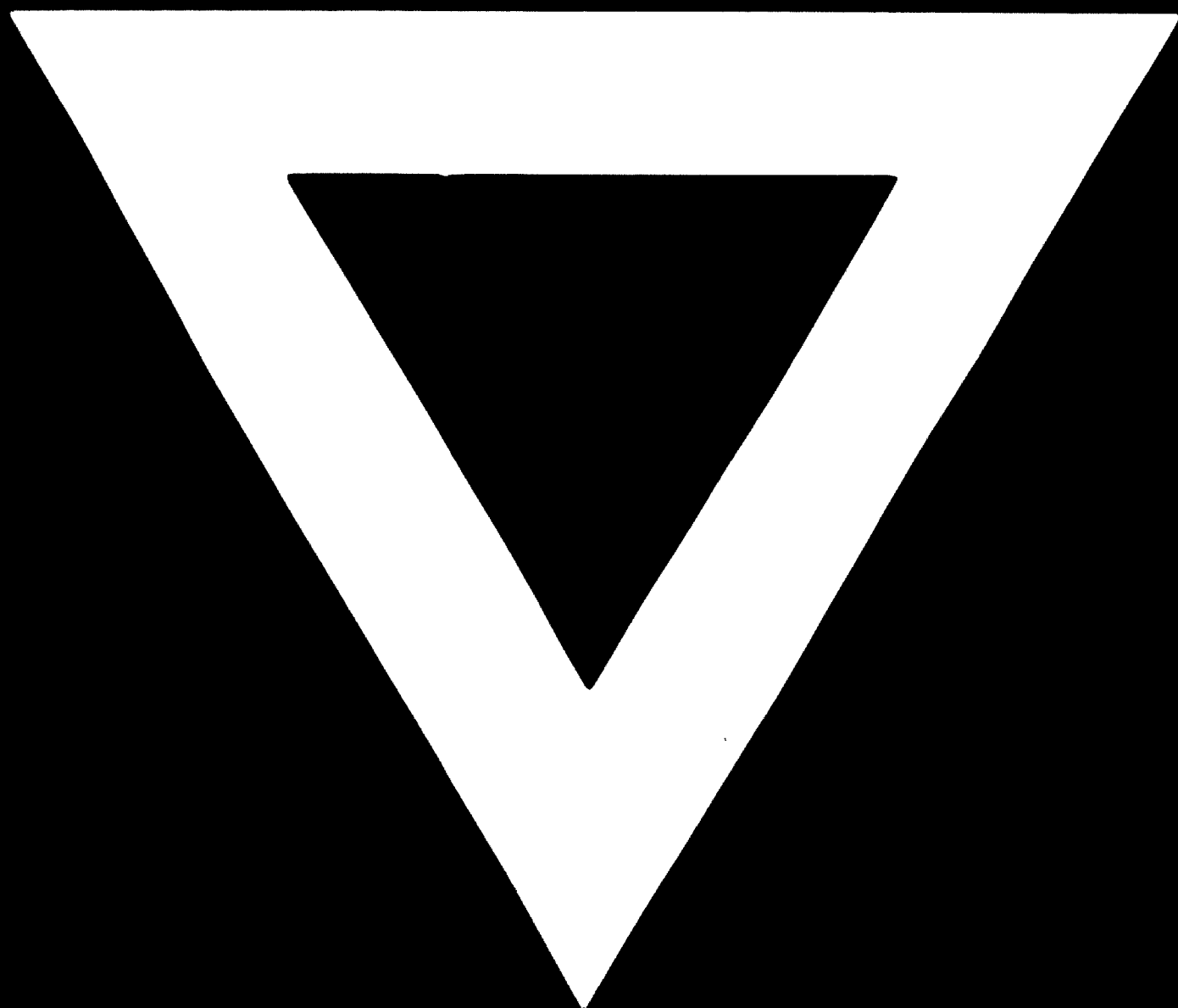
Section	Specific activity	No. of fellows	Average cost per m/m (in US\$)	Average training time (in months)
Industrial institutions (31.1)		8	598	5.1
	Standard, and quality control (31.1.02)	7	509	5.6
Industrial management and consulting services (31.3)		16	1,073	5.3
	Management techn. (31.3.02)	10	950	6.5
OVERALL		30	819	5.4

Table 51

Actual Cost Per Man/Month and Training Time of Total Selected Fellowships, by Field of Training Corresponding to IPPD, 1957 - 1973

Section	Specific activity	No. of fellows	Average cost per m/m (in US\$)	Average training time (in months)
Ind. programming (32.1)		11	633	5.0
	Strat. plans + policies for ind. (32.1.01)	4	483	3.9
	Use of computers + math. techs. for ind. dev. (32.1.05)	5	716	5.9
Industrial financing and investment promotion (32.2)		4	593	5.2
OVERALL		18	631	5.0

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