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ABSTRACT

As part of the overall education plans for Fort Lincoln New Town (FLNT) an automated school cost model was developed. Chapter 1 overviews the FLNT model's features and sets its operational context, while chapter 2 discusses the model in detail. The appendices provide model inputs and cost calculations, names of approximately 500 inputs used in the model plus codes used for calculating equations, and provides the coded equations used to calculate the costs for each cost category, for investment costs and for operating costs. (For related documents see ED 047 171 through ED 047 188.) (Author/LS)

FD 047 187



**GENERAL LEARNING CORPORATION
EDUCATIONAL SERVICES DIVISION**

000 680

**FORT LINCOLN SCHOOL
COST MODEL AND FUNDING
FOR COMPREHENSIVE PLAN**

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April 24, 1970

**Educational Services Division
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Report UR-119

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INTRODUCTION

As part of the overall education plans for Fort Lincoln New Town, RMC developed an automated school cost model. All told, our FLNT model can undertake the following tasks:

- (1) The computation of the costs of education programs differentiated from each other by many educational inputs.
- (2) Trade-off analyses that would permit school decision makers to display immediately the resource implications of specific program changes.
- (3) The provision of the basis for cost-effectiveness analyses of various programs undertaken within the FLNT education system.

This chapter overviews the model's features and sets its operational context. Chapter 2 discusses the model in detail.

The design of the computer model was dictated by the FLNT comprehensive educational program, which will do away with arbitrary learning levels based on a child's chronological age. Instead the FLNT program is composed of learning levels based on a child's acquisition of clusters of skills. The cost model was therefore designed to reflect this concern with skill levels rather than grade levels. The basic format is shown in Table 1. The activities under which costs are organized are

- General Administration,
- Stages 1-7,
- Staff Development, and
- Community Activities.

FORMAT OF THE MODEL

Object Class	Activity							Community	Total
	General Administration	Stage 1	Stage 2	Stage 3-4	Stage 5	Stage 6	Stage 7		
Personnel									
Level 1									
Level 2									
Level 3									
Level 4									
Level 5									
Stipends (students)									
Office Equipment Capitalized									
Not Capitalized									
Classroom Equipment Capitalized									
Not Capitalized									
Office Supplies and Materials									
Classroom Supplies and Materials									
Communication and Printing									
Communications									
Printing									
Travel									
In-Town, Professional									
Out-of-Town, Professional									
In-Town, Students									
Consultants and Contracts									
Consultants									
Contracts									
Operation and Maintenance									
Personnel									
Supplies and Materials									
Lunch Program									
Total									

When the comprehensive plan is put into operation, the costs of operating the Fort Lincoln educational system will be arrayed by these activities. General administration, staff development, and community activities will reflect the total costs of providing these services within the system. In addition, the various stages will correspond to the costs of bringing children up to certain educational skill levels. For instance, in the comprehensive plan, Stage 1 might reflect the costs associated with a given number of children acquiring specified skills at the preschool level. Since the model is constructed to include all major cost categories under each of these activities, school planners will not inadvertently omit significant costs when they analyze alternative educational programs using the model.

An added feature of this model is that in addition to operating at the level of the entire school system, it is also designed to reflect the costs of operating one school--for instance a high school--or a number of schools associated with one target population or educational objective--for instance, all the high schools in Fort Lincoln New Town. In the first case, general administration, staff development, and community activities would reflect the costs associated with these activities within one school, while the various stages would represent either the costs of one learning activity, like reading, or a number of learning activities targeted at the same population within the school, like all vocational programs. In the latter case, a number of schools associated with one program objective, the model would reflect the sum cost of the various activities across high schools.

The model also facilitates alternative program analysis, that is, tradeoffs of resources or program designs for other program characteristics. School planners may quickly obtain the resource implications of such tradeoffs under whatever constraints they may wish to introduce. For example, Fort Lincoln administrators may wish to consider program changes while maintaining a constant overall cost per student; such a change might be decreasing the amount of equipment used in classes while increasing the number of staff in classes by utilizing more teacher aides. Thus, the model rapidly determines what is the tradeoff between equipment and teacher aides under the fixed cost per student constraint. The model can

rapidly answer any number of "What if?" questions in terms of resources and costs. However, these tradeoffs must ultimately be considered in light of educational effectiveness.

The basic output format of the model permits cost-effectiveness analysis of all the activities and experimental programs within the FLNT comprehensive education plan. Because total costs of all programs are collected by programs, it will be possible within the Fort Lincoln educational system to know the total cost of each program. Total cost will include, in addition to the cost of direct classroom activities like teacher time and classroom materials, any administrative costs associated with a program plus an assigned burden of indirect maintenance cost. Without including these often overlooked indirect costs, the complete cost of any educational program cannot be computed. Furthermore, by matching the costs of a program with evaluation data, cost-effectiveness analyses can be undertaken. Since costs are estimated by learning-skill-acquired, it will be possible to associate these costs with evaluation information to say, for instance, that it costs x dollars for each preschool pupil to acquire certain language skills. These analyses will permit comparisons between programs and will provide the basic data necessary to decisions on expanding, maintaining, reducing, or abandoning various experimental programs. Furthermore, if costs and evaluation information are collected by schools, it will be possible to compare the costs and performance of individual schools and to hold decision makers responsible for this performance.

An added feature of the FLNT model are the special outputs printed at the end of the computer output. Table 2 displays these special outputs with example data. These special items serve as decision-making guides to FLNT administrators by enabling them to immediately see key information, such as the operating cost per student, resulting from each program under consideration. For each analysis undertaken, whether by school, clusters of schools, or the entire FLNT system, these sections of the model supply the following information:

Table 2
SPECIAL OUTPUTS

YEARS OF OPERATION	SELECTED DATA VALUES
INVESTMENT	245.26
PERSONNEL ACQUISITION	0.00
PERSONNEL (STAFF TRAINING)	82.81
CLASSROOM EQUIPMENT--CAPITALIZED	75.56
OFFICE EQUIPMENT--CAPITALIZED	7.05
CLASSROOM SUPPLIES + MATERIALS	2.00
OFFICE SUPPLIES + MATERIALS	1.50
COMMUNICATIONS + PRINTING	0.35
FACILITY RENTAL (STAFF TRAINING)	2.00
IN-TOWN TRAVEL, PROFESSIONALS	0.52
OUT-OF-TOWN TRAVEL, PROFESSIONALS	2.66
CONSULTANTS	45.00
CONTRACTS	25.80
OPERATIONS + MAINTENANCE SUPPLIES	0.00
ANNUAL OPERATING	1025.17
PERSONNEL (LESS PENS, ACQUISITION)	492.11
PERSONNEL ACQUISITION	0.00
STIPENDS (STUDENTS)	15.11
CLASSROOM EQUIPMENT--CAPITALIZED	2.21
OFFICE EQUIPMENT--CAPITALIZED	3.25
CLASSROOM EQUIPMENT--NOT CAPITAL.	10.65
OFFICE EQUIPMENT--NOT CAPITALIZED	127.65
CLASSROOM SUPPLIES + MATERIALS	4.70
OFFICE SUPPLIES + MATERIALS	13.50
COMMUNICATIONS + PRINTING	0.00
FACILITY RENTAL	2.95
IN-TOWN TRAVEL, PROFESSIONALS	1.82
IN-TOWN TRAVEL, STUDENTS	14.50
OUT-OF-TOWN TRAVEL, PROFESSIONALS	20.44
CONSULTANTS	117.00
CONTRACTS	111.75
OPERATIONS + MAINTENANCE	87.50
LUNCH PROGRAM	0.00
FOOD (COMMUNITY ACTIVITIES)	0.00
TOTAL NUMBER OF STUDENTS	700.00
STAGE 1	175.00
STAGE 2	235.00
STAGE 3-4	290.00
STAGE 5	0.00
STAGE 6	0.00
STAGE 7	0.00
TOTAL NUMBER OF STAFF (LESS DAY CARE)	63.00
BY LEVEL	
LEVEL 1	0.00
LEVEL 2	0.00
LEVEL 3	17.00
LEVEL 4	16.00
LEVEL 5	30.00
BY ACTIVITY	
GENERAL ADMINISTRATION	6.00
STAGE 1	8.00
STAGE 2	10.00
STAGE 3-4	12.00
STAGE 5	0.00
STAGE 6	0.00
STAGE 7	0.00
STAFF TRAINING	1.00
COMMUNITY ACTIVITIES	26.00
TOTAL NO. OF PROFESS. (LESS DAY CARE)	33.00
GENERAL ADMINISTRATION	4.00
STAGE 1	4.00
STAGE 2	6.00
STAGE 3-4	8.00
STAGE 5	0.00
STAGE 6	0.00
STAGE 7	0.00
STAFF TRAINING	1.00
COMMUNITY ACTIVITIES	10.00

Table 2 (Continued)

STAFF RECEIVING ANNUAL STAFF TRAIN.	0.00
LEVEL 1	0.00
LEVEL 2	0.00
LEVEL 3	0.00
LEVEL 4	0.00
LEVEL 5	0.00
STUDENT-TOTAL STAFF(=COMJ-ST)RATIO	19.44
STUDENT TO STAFF RATIOS BY STAGES	
AVERAGE FOR ALL STAGES	23.33
STAGE 1	21.33
STAGE 2	23.50
STAGE 3-4	24.17
STAGE 5	0.00
STAGE 6	0.00
STAGE 7	0.00
STUDENT-TOTAL PROF.(=COMJ-ST)RATIO	31.82
STUDENT-PROF.STAFF RATIOS BY STAGE	
AVERAGE FOR ALL STAGES	38.89
STAGE 1	43.75
STAGE 2	39.17
STAGE 3-4	36.25
STAGE 5	0.00
STAGE 6	0.00
STAGE 7	0.00
TOTAL INVEST.(LESS COMH)/STUDENT	350.00
INVESTMENT COST BY STAGE PER STUDENT	
AVERAGE FOR ALL STAGES	109.00
STAGE 1	134.00
STAGE 2	113.00
STAGE 3-4	91.00
STAGE 5	0.00
STAGE 6	0.00
STAGE 7	0.00
CLASS.EQP.+SUPP.INVEST.BY STAGE/STUD	
AVERAGE FOR ALL STAGES	107.00
STAGE 1	132.00
STAGE 2	111.00
STAGE 3-4	90.00
STAGE 5	0.00
STAGE 6	0.00
STAGE 7	0.00
STF TRN. INVEST. PER STAFF PER.TRNED	3782.50
TOT.OPERATING COST(=LUNCH)-COMH)	675.41
TOT.OP.COST(=LUNCH)-COMH)/STUDENT	964.87
OP. COST(=LUNCH)BY STAGE/STUDENT	
AVERAGE FOR ALL STAGES	736.33
STAGE 1	811.27
STAGE 2	722.92
STAGE 3-4	701.97
STAGE 5	0.00
STAGE 6	0.00
STAGE 7	0.00
ANN.CLASS.EQUIP.+SUPPL./STUDENT	
AVERAGE FOR ALL STAGES	203.95
STAGE 1	233.74
STAGE 2	203.05
STAGE 3-4	186.70
STAGE 5	
STAGE 6	
STAGE 7	
AN.STF.TRNING COST/STF.PER.TRNED.	

- (1) Investment--The 13 cost categories under this category sum up the costs across educational activity. It is possible by looking at these items to see the total amount of the school system, a cluster of schools, one school, or one program.
- (2) Annual Operating--These items sum up across activity and display the recurring annual operating cost of 19 cost categories.
- (3) Total Number of Students--After the total number of students, the population is arrayed by stage so that it is possible to see at once the number of students, within the total, who are involved in each learning program.
- (4) Total Number of Staff--In this item the total staff is first displayed by levels of salary and responsibility (see Chapter 2 for discussion of level). Since staff levels correspond to staff responsibility, a look at these numbers tells the decision maker the responsibility and seniority mix of the staff. Second, staff by activity is displayed to show staffing activity and the balance between direct educational activities and administration.
- (5) Total Number of Professional Staff--This category subtracts out non-professionals (clerks, secretaries) and sums by activity. By assuming that the professionals are the educators, this item permits one to see the amount of staff directly involved in education.
- (6) Staff Receiving Annual Staff Training--Since a major emphasis of the FLNT comprehensive plan is the encouragement of the staff to update their skills, this item permits one to see readily the number of people involved in staff training.
- (7) Student: Total Staff--This divides the total number of students by the total number of staff to give a general picture.
- (8) Student: Professional Staff Ratio by Stage--This divides the professional staff involved in each activity to the total number of students in each learning activity.
- (9) Total Investment (less community programs)/Student--This divides the total investment cost by the total number of students to display the investment cost per student.
- (10) Investment Cost by Stage per Student--This divides the cost at each learning stage by the students in that stage to get investment cost per student per stage.
- (11) Classroom Equipment and Supplies Investment by Stage by Student--Assuming that classroom equipment and supplies are most directly related to education, this item separates these cost categories from total investment costs.

- (12) Staff Training Investment per Staff Person Trained--This divides total staff training costs by the staff being trained to display the initial cost per staff person trained with FLNT.
- (13) Total Operating Cost (lunch and community)--This is the annual operating cost.
- (14) Total Operating Cost (lunch and community)/Student--This computes the traditional per pupil expenditure discussed later.
- (15) Total Operating Cost (lunch) by Stage per Student--This displays the direct cost per child within each learning activity or program.
- (16) Annual Classroom Equipment and Supplies/Student--This separates from operating costs those costs associated with educational materials and displays them by each student.
- (17) Annual Staff Training Cost per Staff Person Trained--Displays by trainee the cost of annual staff training.

Effective program budgeting requires the participation of not only the budgeters and business managers of Fort Lincoln, but also those directly involved in the daily operations of the school and the education program. As discussed, this program budget is organized in the activities of General Administration, Learning Stages 1-7, Staff Development, and Community Activities. Each year those persons responsible for resource allocation in each of these activities should assess the current year's operations and draw up specific budgets for the next year based on the programs and educational objectives they wish to accomplish. The budget for the following year should be specific and fairly exact. However, at the same time, tentative budgets for the following 4 years should be based on the specific requests for the following year.

These budgets should not speak simply of so many teachers at a particular salary but should be accompanied by brief descriptions of the programs involved, particularly their objectives. For example, a request for additional personnel should specify what subject areas they would be teaching and the number of students who would benefit. Accompanying the budget requests should be evaluation plans so that those requesting financial resources can be held responsible for producing a result. The specific results for each activity should be arranged in educational priorities.

At this point the requests for all activities should be grouped together to be presented and discussed as an integrated program. The priorities should be worked out between the activities and the final budget, including a five-year projection, drawn up by representatives of all the activities. The final budget for the entire facility should include program descriptions and objectives. A useful guideline during this process is that the ceiling figure for the school budget should be based on an estimate of the next year's per pupil operating costs for the D. C. School System as a whole, since in the real world of budget limitations all public school facilities in the city will be similarly constrained by the total funds available. Each year, specific programs should be enlarged, reduced, or kept at the same level based on an evaluation of the program's performance as compared to its cost and the relative costs and effectiveness of the other programs competing for the educational dollar. These general guidelines are discussed in relation to the First Facility in the Operating Plan (Volume II, Section 3).

MODEL DESCRIPTION

The figures in Table 3 are total cost estimates. To achieve the cost breakdown described below, detailed program specifications must be known to utilize the cost-estimating relationships in the automated cost model. Specific operating details must be expressed by educational planners--decisions such as number of teachers, number of learning centers, etc. Below is a description of the model and illustrations from the detailed First Facility plan. The full model printout in the appendix depicts the costs for the First Facility only.

MODEL STRUCTURE AND OUTPUTS

Figure 1 depicts the types of output from the model in the order they are printed (see Appendix A). First are the values of all the inputs used in costing the plan. (See Appendix B for a listing of all the inputs.) There are 465 possible inputs in the model and all the cost factors are consistent with D. C. Public School costs.

Next are investment costs by cost category for each activity, followed by operating costs by cost category for each activity. These are followed by the special outputs described in Chapter 1.

The rest of this section discusses the activities, the cost categories, and cost inputs.

School Activities

The model is currently constructed to cost the nine major activities shown in Table 4.

Table 4³

SCHOOL ACTIVITIES

General Administration
Stage I - Instruction
Stage II - Instruction
Stage III-IV - Instruction
Stage V - Instruction
Stage VI - Instruction
Stage VII - Instruction
Staff Training
Community Activities

These phases of planning and implementation depend upon the completion of certain subarea housing developments and increases in resident population. In Table 3, ^{and 2.} the phases also have subarea designations indicating the particular housing developments to be finished in each phase. ~~Under Phase I, an overcrowding factor is added because some 540 children from the surrounding areas will be assigned to the Fort Lincoln school.~~ These phases, as shown, are not designed to correspond to specific years but rather encompass the First Facility development to the fully implemented educational plan--approximately the mid-seventies to 1980.

The number of students was estimated using the Logue Report, the GLC Definition Study, and the planned building schedules of Fort Lincoln. They are, of course, estimates and are adequate for current planning. They may be periodically updated as the development of Fort Lincoln progresses.

~~The per-pupil-dollar allotments are based upon those used in the D.C. School System, and include all operating costs incurred by the system, particularly personnel, office and classroom equipment, office and classroom supplies and materials, travel by both professional and students; contracts and consultants; and operations and maintenance. There is an approximately 8 percent a year increase in this allotment mainly to cover increasing prices and wages. The figures in Table 3 reflect this yearly increase taken to 1980.~~

^{for the construction plan}
The total costs in ~~Table 3~~ are planning costs; that is, they indicate the magnitude of resources required as the Fort Lincoln educational system is currently planned. As these plans become better defined and as the development of the Fort Lincoln community takes shape, more detailed costing by the full automated cost model can be performed to provide more refined costs. However, the ^{planned} costs in ~~Table 3~~ can be confidently used as a reasonable indication of the total budget necessary to run the schools in the innovative manner dictated by the current educational plan.

(B)

THE COMPREHENSIVE PLAN

Costs for the comprehensive plan were estimated from an abbreviated version of the automated model used to cost the first facility. Since the education plan will be implemented in ^{four} ~~five~~ phases to accommodate the growing student population of Fort Lincoln as each construction phase is completed, the total costs incurred will rise as the student population increases from phase to phase and ~~as the per pupil dollar allotment increases to allow for increased prices and wages.~~ ~~Table 3 is~~ ^{Tables 3.1 and 3.2 are} a summary of the costs of the comprehensive plan.

Table 3

COST SUMMARY OF COMPREHENSIVE PLAN

new table attached

Phase	Educational Level (Number of Pupil(s))		Per Pupil Allotment	Total Cost by Educational Level		Total
	Elementary	Secondary		Elementary	Secondary	
I						
Overcrowding	287	249	\$1,597	\$ 458,300	\$ 397,700	\$ 856,000
Subarea D	602	189		961,400	301,833	1,263,227
II						
Subarea C	1,986	614	1,725	3,425,800	1,059,200	4,485,000
III						
Subarea B	1,546	475	1,863	2,880,200	824,900	3,705,100
IV						
Subarea A	1,895	581	2,012	3,812,700	1,169,000	4,981,700
V						
Subarea E	1,400	459	2,173	3,237,800	997,400	4,235,200

2

THE COMPREHENSIVE PLAN

MODEL DESCRIPTION

The figures in Table 3.4 on page 3-20 of Report No. 5, The Comprehensive Plan, show total cost estimates. To achieve the cost breakdown described below, detailed program specifications must be known to utilize the cost-estimating relationships in the automated cost model. Specific operating details must be expressed by educational planners--decisions such as number of teachers, number of learning centers, etc. Below is a description of the model and illustrations from the detailed First Facility plan. The full model printout in the appendix depicts the costs for the First Facility only.

MODEL STRUCTURE AND OUTPUTS

Figure 1 depicts the types of output from the model in the order they are printed (see Appendix A). First are the values of all the inputs used in costing the plan. (See Appendix B for a listing of all the inputs.) There are 465 possible inputs in the model and all the cost factors are consistent with D. C. Public School costs.

Next are investment costs by cost category for each activity, followed by operating costs by cost category for each activity. These are followed by the special outputs described in Chapter 1.

The rest of this section discussed the activities, the cost categories, and cost inputs.

School Activities

The model is currently constructed to cost the nine major activities shown in Table 3.

Table 3

SCHOOL ACTIVITIES

General Administration	
Stage I -	Instruction
Stage II -	Instruction
Stage III-IV -	Instruction
Stage V -	Instruction
Stage VI -	Instruction
Stage VII -	Instruction
Staff Training	
Community Activities	

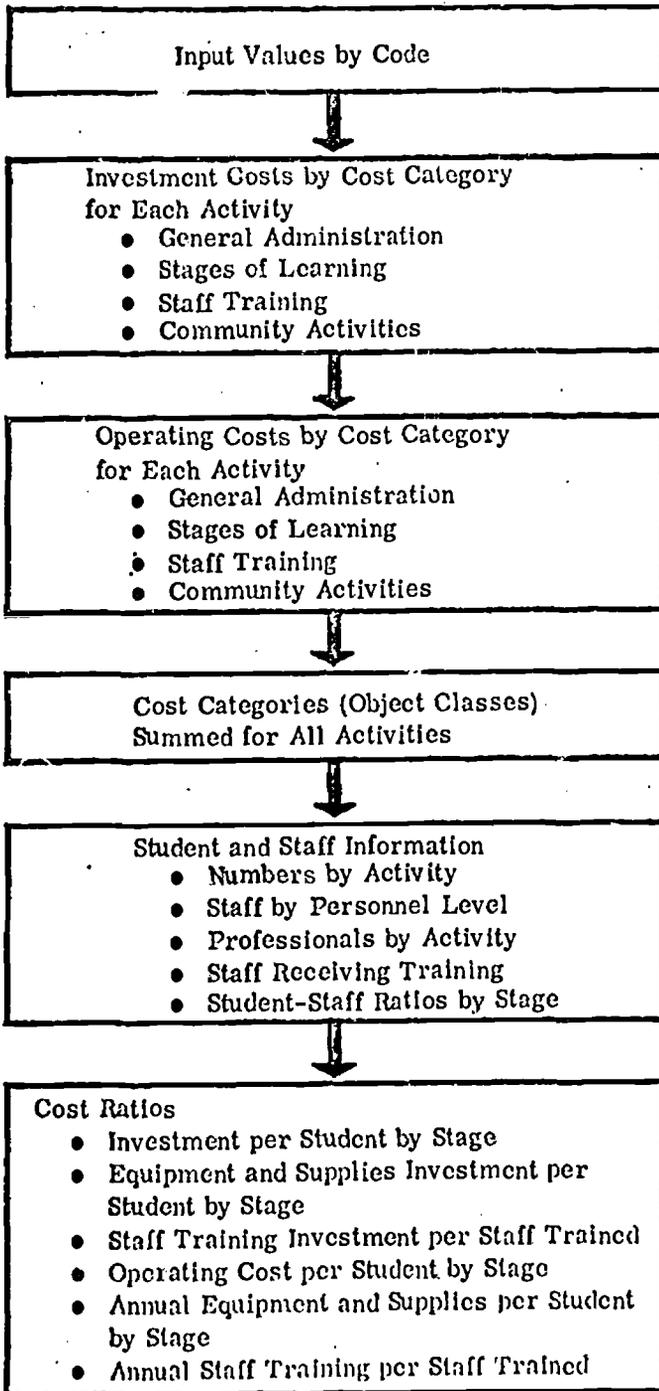


Figure 1: MODEL OUTPUT STRUCTURE

Under General Administration are all the costs associated with administering the overall FLNT educational program. The administrative costs associated with a specific learning stage are found under that learning stage. In other words, General Administration refers to the administrative activities that support all stages. Under the stages of Instruction (as defined in the Education Plan) appear the total costs of meeting the educational objectives of these stages. They include pre-kindergarten through senior high school. For instance, under Stage I are all the costs associated with the education of pre-schoolers including administration, teaching, food services, and operations and maintenance, etc. This model breakdown facilitates budgetary decision making on the basis of overall skill levels achieved by studies instead of simply money spent for so many teachers or so many library books. Similarly, under Staff Development are displayed all the costs associated with the continuous education of all the staff and under Community Activities are displayed all the costs associated with using school facilities in educational and cultural activities for the total community.

COST CATEGORIES

The cost categories described here are consistent with the D. C. Public School Budget structure. The two classes of costs are investment and operating. The investment costs are one-time costs incurred in establishing the Fort Lincoln schools. Facility costs were purposely excluded from the model since they are being independently estimated. Annual operating costs are those costs that recur each year.

The above school activities are costed, as stated, by using object classes--a detailed breakdown of component costs. With the use of object classes, it is possible to get a complete picture of resources applied to each activity and to obtain total costs by activity, i. e., total capitalized equipment cost, total supplies and materials cost, total operating and maintenance costs, etc. Below is a full list of the object classes used in this version of the model.

COST CATEGORIES¹

INVESTMENT COSTS

Personnel Acquisition
Personnel (Staff Training)
Classroom Equipment - Capitalized
Office Equipment - Capitalized
Classroom Supplies and Materials
Office Supplies and Materials
Communication and Printing
Facility Rental (Staff Training)
In-town Travel, Professionals
Out-of-town Travel, Professionals
Consultants
Contracts
Operations and Maintenance Supplies

ANNUAL OPERATING COSTS

Personnel
Personnel Acquisition
Classroom Equipment - Capitalized
Office Equipment - Capitalized
Classroom Equipment - Not Capitalized
Office Equipment - Not Capitalized
Classroom Supplies and Materials
Office Supplies and Materials
Communications and Printing
Facility Rental
In-town Travel, Professionals
Out-of-town Travel, Professionals
Consultants
Contracts
Operations and Maintenance
Lunch Program
Food (Community Activities)

1. Although facility construction costs were not included in the Fort Lincoln application of this model, this category of costs could be easily added.

Personnel

Because of the personnel structure planned for the school, the budget model was developed with five personnel levels, which approximate the salary levels of the D. C. School System. They are as follows:

- Level I: This includes those who hold positions ranging from that of elementary school principal to that of assistant superintendent. The salary-plus benefits range from \$15,500-\$19,300. In the computation, the average figure of \$17,300 was used as an annual salary figure.
- Level II: Second highest level. In the D. C. School System, this level of personnel includes assistant principals, supervising directors, or principals. The total compensation ranges from \$14,300-\$15,500. In the computation, the average annual salary figure of \$8,800 was used.
- Level III: This level in the D. C. School System would include master teachers whose total compensation ranges from \$10,700-\$14,300. In the computation, the average figure of \$12,700 was used.
- Level IV: This level in the D. C. School System would include base teachers, librarians, experienced secretaries, and head custodians and engineers. The total compensation ranges from \$7,000-\$10,700. In the computation, the average figure of \$8,800 was used.
- Level V: Lowest level. This level in the D. C. School System includes teacher aides, clerks, and custodian assistants whose compensation ranges from \$5,400-\$6,000. In the calculation, the average figure of \$5,860 was used.
- Students: Some students will be employed part time in the facility at \$1.50/hour to provide instructional support (see Education Plan, Volume I).

Many people on the faculty may be employed part time. For ease in computation, their positions are translated into full-time equivalents. For example, three people each working one-third time equal one full-time person. The use of an average compensation figure at this time provides sufficient funds for salary and benefits.

After operation is under way and individuals of different skills are hired at specific salary levels, these figures will represent actual salaries plus benefits.

The above salaries are based on the 1970 salary scale of the District of Columbia School Board. These salaries will obviously increase from year to year so that more money must be allocated to cover personnel costs. But it must be remembered that this salary breakdown was used to establish the level of responsibility of the people hired. These levels of responsibility will hold true even when the salaries increase.

In addition to the full-time administrative and instructional staff, the personnel cost model includes children and community participants who will receive stipends and daily wages for part-time work in the school.

The personnel object class includes the capacity to compute a personnel acquisition cost to ensure funds for new teacher recruitment every year. This item appears only in the annual operating budget. First-year experience will allow those concerned to estimate recruitment costs per type of person recruited and compute the funds needed in succeeding years.

Capitalized and Noncapitalized Equipment

Capitalized and Noncapitalized Classroom and Office Equipment are categories that always require additional explanation in financial accounting of school systems. The District of Columbia School Board defines equipment as:

"A material item of a non-expendable nature such as a built-in facility, a movable or fixed unit of furniture, an instrument or apparatus, a machine, an instructional skill-training device, or a set of small articles, whose parts are replaceable or repairable, the whole retaining its identity and utility over a period of time which is characteristic of and definable for items of this class."

Once an item is classified as equipment, it is again classified as either capitalized or noncapitalized equipment. The D.C. Board defines capitalized equipment as that being purchased for the first time and noncapitalized equipment as replacements. For planning, however, we have slightly changed this definition. The basic equipment definition is the same, but capitalized equipment, for our purposes, includes that equipment purchased for \$100 or more and having a useful life of longer than a year, while noncapitalized equipment is that which costs less than \$100 and lasts about one year.

as the replacements. For planning, however, we have slightly changed this definition. The basic equipment definition is the same, but capitalized equipment, for our purposes, includes that equipment purchased for \$100 or more and having a useful life of longer than a year, while noncapitalized equipment is that which costs less than \$100 and lasts about one year.

We have included under Equipment the same items the D. C. School System includes--typewriters, movie projectors, Language Masters, etc.--with two exceptions. Textbooks and library books are included in the equipment category according to the D. C. School Board Office. For the purposes of our planning effort, texts and other books have been included under recurring and nonrecurring supplies. A discussion of this point appears below. Second, school furniture (desks, chairs, etc.) is classified under equipment by D. C.--but for our purposes these costs appear under the capital outlay budget available from the Special Projects Division.

It should be noted that because the Fort Lincoln Plan includes some investment and operating costs, capitalized office and noncapitalized and classroom equipment allotments have been included in the investment and operating phases. The money allotted in the operating budget for capitalized equipment is designed to be sufficient for the updating and replacement of the original equipment.

Supplies and Materials

Classroom and office supplies and materials categories also need some clarification. The D. C. Board of Education defines supply as a material item of an expendable nature that is consumed, worn out, or deteriorated in use--or one that loses its identity through fabrication or incorporation into a different or more complex unit or substance. For our planning purposes, we have divided this category into two subgroups:

- recurring supplies, those that must be order each year; and
- nonrecurring supplies, those that are necessary to the establishment of the facility and may last a few school years.

All the supplies and materials to be costed for Fort Lincoln were determined by the GLC planners with the exception of the "usual" office supplies estimate, which was put together by the Resource Management Corporation. Here are some examples of our supply classifications:

- Classroom Supplies and Materials

- Recurring (for the purposes of replacement and updating)

- Movie Film
- Polaroid Film
- Tools
- Subscriptions and Periodicals
- Workbooks
- Paperback Books
- Textbooks
- Library Books

- Nonrecurring (the initial substantial purchases)

- Films
- Cassettes
- Records
- Overhead Transparencies
- Tools
- Aquarium
- Encyclopedias
- Reference Books

It will be noted that textbooks, library books, and workbooks are included under supply and materials instead of equipment as the D. C. Board classifies them.

- Office Supplies and Materials

- Recurring

- Paper
- Carbon Paper
- Paper Clips
- Pencils

- Nonrecurring

- Staple Guns
- Desk Files
- Hole Punch

Communications and Printing and Reproduction

This object class includes costs incurred in the publication of reports, directories, manuals, and visitor information in addition to the usual printing and reproduction done at the school facility. The Communications portion includes allotments for postage, telephone, and telegraph services.

Travel

This object class is broken down into three components:

- Professional in-town travel, which includes all administrators' and teachers' travel in the D. C. area. The allotment is based on a figure of \$.10 a mile.
- Student in-town travel includes the cost of student field trips to museums and other points of interest in the Washington area.
- Professional out-of-town travel includes funds for trips to conventions, symposia, or observations of other schools for the administrators and some instructional staff. It is sufficient to permit one out-of-town trip per full-time staff member.

For the first year, in this case as in others, the amount of travel was estimated. These figures can be revised in light of actual costs incurred the first year.

Consultants and Contracts

The dollar allotment for consultants is based on the figure of \$75 per day and permits the use of both in-town and out-of-town consultants. The amount of time needed was estimated by the educational planners and can be revised after the first-year's experience.

Allotments for contracts include money to be spent on objective outside consultants hired to make thorough evaluations of the school and all its programs.

Operations and Maintenance

After much consultation with the D. C. Board of Education and other informed sources, the operations and maintenance allotment was put at 14 percent of the total budget. This percentage allotment takes into consideration personnel costs, supplies, and materials, as well as the extended hours of facility operation (see Education Plan for hours per week that the school is open).

Lunch Program

The District of Columbia schools provide a hot lunch to all pupils at a cost of about \$.50 per pupil. This is the figure used to compute the total lunch program cost for Fort Lincoln First Facility. The dollar allotment is included in the total budget but not in the computation of the per pupil expenditure.

Other Model Outputs

At the end of the cost category output (Appendix A), further important output will be provided. In this output, the cost are first aggregated by cost category across all activities. For example, the cost of personnel acquisition is summed for general administration, the stages of instruction, staff training, and community activities. Next, student and staff data are given--for example, the total number of students by stage of instruction, the number of staff by level and by activity, and the number of staff receiving annual training. This is followed by various student-staff ratios and the various costs per student figures and staff training costs per staff person trained. These special outputs have been discussed in Chapter 1.

MODEL INPUTS AND COST CALCULATIONS

The model contains cost-estimating equations for each cost category. The types of data inputs used in those equations are currently based on the data used in the D. C. public schools. For example, the annual salary and benefits of staff personnel are estimated by the following general equation:

$$\frac{\text{number of personnel}}{\text{at a given level}} \times \frac{\text{annual salary}}{\text{benefits at that level}}$$

In the model for Level I personnel in Stage I Instruction, the coded equations looks as follows:

$$S1L1 \times L1AS$$

Appendix B provides the names of all the nearly 500 inputs used in the model. In addition, Appendix B gives the codes used for each input in the calculating equations.

Appendix C provides the coded equations used to calculate the costs for each cost category, first for investment costs and then for operating costs.

APPENDIX A

INPUT DATA, ALTERNATIVE MINI FORT LINCOLN MINIMUM CASE

L1AS	17800.000	L2AS	15000.000	L3AS	12700.000	L4AS	8800.000	L5AS	5860.000
L4WH	0.000	L5WH	0.000	SDW	8800.000	ACL1	300.000	ACL2	240.000
ACL3	240.000	ACL4	125.000	ACL5	125.000	L1TR	0.000	L2TR	0.000
L3TR	0.000	L4TR	0.000	L5TR	0.000	P1TTC	0.100	S1TTC	0.500
P0TTC	100.000	P0TTC	3.000	P0TTC	16.000	DERCF	0.100	CERCF	0.200
AJO	750.000	CDC	75.000	CTC	75.000	CTD	2.000	CTDC	16.000
OMPF	0.070	OMSF	0.070	ALCS	125.000	GL1	0.000	GL2	0.000
GL3	4.000	GL4A	0.000	GL4B	0.000	GL5	2.000	DUMI	0.000
G1F0EC	6000.000	G1F0S4	0.000	G1F0SH	0.000	G1OSSA	0.000	G1CP	0.000
GCI	0.000	GCI0	0.000	G1TC	0.000	GCONI	0.000	GIUMS	0.000
GO	2.000	GA0SS4	1500.000	GAUSS4	400.000	GAPR	1750.000	GFR	0.000
GPAITF	0.500	GPAIT	900.000	GPAITF	0.500	GPAOT	5.000	GCA	0.000
GCAD	0.000	GATC	0.000	GCONA	40000.000	S1S	175.000	S1I1	0.000
S1L2	0.000	S1L3	2.000	S1L4A	2.000	S1L4B	0.000	S1L5	4.000
DUM2	0.000	S1F0CC	23145.000	S1F0CS	0.000	S1F0C	300.000	S1I0S4	50.000
S1F0CS	0.000	S1F0SS	0.000	S1F0S5	0.000	S1I0SS	0.000	S1I0CP	0.000
S1CT	0.000	S1CIU	0.000	S1IIC	0.000	S1CONI	0.000	S1I0MS	0.000
S1C	1.000	S1AFC	1250.000	S1APR	750.000	S1A0S4	50.000	S1AFCS	17525.000
S1ACSS	100.000	S1A0SS	300.000	S1APR	750.000	S1FR	0.000	S1PITF	1.000
S1PAIT	100.000	S1SITF	0.350	S1SAIT	10.000	S1POTF	1.000	S1PAOT	1.000
S1CA	18.000	S1CAD	1.000	S1ATC	0.500	S1CONA	8500.000	S1SLF	1.000
S2S	235.000	S2L1	0.000	S2L2	0.000	S2L3	3.000	S2L4A	3.000
S2L4B	0.000	S2L5	4.000	S2IFCC	26255.000	S2IFCS	0.000	S2IF0C	300.000
S2I0S4	50.000	S2IFCS	0.000	S2IFSS	0.000	S2IF0S	0.000	S2I0SS	0.000
S2IC0	0.000	S2CI	0.000	S2CID	0.000	S2ITC	0.000	S2CONI	0.000
S2I0MS	0.000	S2U	1.000	S2AFC	1000.000	S2ACS	0.000	S2AGSA	50.000
S2AFCS	17905.000	S2ACSS	100.000	S2A0SS	300.000	S2APR	750.000	S2APR	0.000
S2PITF	1.000	S2PAIT	100.000	S2SITF	1.000	S2SAIT	3.000	S2POTF	1.000
S2PAOT	1.000	S2CA	18.000	S2CAD	1.000	S2ATC	0.500	S2CONA	5500.000
S2SLF	1.000	S2S	290.000	S24L1	0.000	S24L2	0.000	S24L3	4.000
S24L4A	4.000	S24L4B	0.000	S24L5	4.000	S24IEC	26160.000	S24ISC	0.000
S24IE0	300.000	S24IS0	50.000	S24IC	0.000	S24ICS	0.000	S24I0	0.000
S24I0S	0.000	S24ICP	0.000	S24CI	0.000	S24CID	0.000	S24ITC	0.000
S24CNI	0.000	S24IMS	0.000	S240	1.000	S24AFC	1000.000	S24ACS	0.000
S240S4	50.000	S24AC	16910.000	S24CSS	100.000	S240SS	300.000	S24APR	750.000
S24FR	0.000	S24PIF	1.000	S24PIT	100.000	S24SIT	1.000	S24SIT	8.000
S24PDF	1.000	S24POT	1.000	S24CA	18.000	S24CAD	1.000	S24ATC	0.500
S24CNA	6000.000	S24SLF	0.000	S24L4A	0.000	S24L4B	0.000	S24L5	0.000
S24L5	0.000	S24L6	0.000	S24L7	0.000	S24L8	0.000	S24L9	0.000
S24L10	0.000	S24L11	0.000	S24L12	0.000	S24L13	0.000	S24L14	0.000
S24L15	0.000	S24L16	0.000	S24L17	0.000	S24L18	0.000	S24L19	0.000
S24L20	0.000	S24L21	0.000	S24L22	0.000	S24L23	0.000	S24L24	0.000
S24L25	0.000	S24L26	0.000	S24L27	0.000	S24L28	0.000	S24L29	0.000
S24L30	0.000	S24L31	0.000	S24L32	0.000	S24L33	0.000	S24L34	0.000
S24L35	0.000	S24L36	0.000	S24L37	0.000	S24L38	0.000	S24L39	0.000
S24L40	0.000	S24L41	0.000	S24L42	0.000	S24L43	0.000	S24L44	0.000
S24L45	0.000	S24L46	0.000	S24L47	0.000	S24L48	0.000	S24L49	0.000
S24L50	0.000	S24L51	0.000	S24L52	0.000	S24L53	0.000	S24L54	0.000
S24L55	0.000	S24L56	0.000	S24L57	0.000	S24L58	0.000	S24L59	0.000
S24L60	0.000	S24L61	0.000	S24L62	0.000	S24L63	0.000	S24L64	0.000
S24L65	0.000	S24L66	0.000	S24L67	0.000	S24L68	0.000	S24L69	0.000
S24L70	0.000	S24L71	0.000	S24L72	0.000	S24L73	0.000	S24L74	0.000
S24L75	0.000	S24L76	0.000	S24L77	0.000	S24L78	0.000	S24L79	0.000
S24L80	0.000	S24L81	0.000	S24L82	0.000	S24L83	0.000	S24L84	0.000
S24L85	0.000	S24L86	0.000	S24L87	0.000	S24L88	0.000	S24L89	0.000
S24L90	0.000	S24L91	0.000	S24L92	0.000	S24L93	0.000	S24L94	0.000
S24L95	0.000	S24L96	0.000	S24L97	0.000	S24L98	0.000	S24L99	0.000
S24L100	0.000	S24L101	0.000	S24L102	0.000	S24L103	0.000	S24L104	0.000
S24L105	0.000	S24L106	0.000	S24L107	0.000	S24L108	0.000	S24L109	0.000
S24L110	0.000	S24L111	0.000	S24L112	0.000	S24L113	0.000	S24L114	0.000
S24L115	0.000	S24L116	0.000	S24L117	0.000	S24L118	0.000	S24L119	0.000
S24L120	0.000	S24L121	0.000	S24L122	0.000	S24L123	0.000	S24L124	0.000
S24L125	0.000	S24L126	0.000	S24L127	0.000	S24L128	0.000	S24L129	0.000
S24L130	0.000	S24L131	0.000	S24L132	0.000	S24L133	0.000	S24L134	0.000
S24L135	0.000	S24L136	0.000	S24L137	0.000	S24L138	0.000	S24L139	0.000
S24L140	0.000	S24L141	0.000	S24L142	0.000	S24L143	0.000	S24L144	0.000
S24L145	0.000	S24L146	0.000	S24L147	0.000	S24L148	0.000	S24L149	0.000
S24L150	0.000	S24L151	0.000	S24L152	0.000	S24L153	0.000	S24L154	0.000
S24L155	0.000	S24L156	0.000	S24L157	0.000	S24L158	0.000	S24L159	0.000
S24L160	0.000	S24L161	0.000	S24L162	0.000	S24L163	0.000	S24L164	0.000
S24L165	0.000	S24L166	0.000	S24L167	0.000	S24L168	0.000	S24L169	0.000
S24L170	0.000	S24L171	0.000	S24L172	0.000	S24L173	0.000	S24L174	0.000
S24L175	0.000	S24L176	0.000	S24L177	0.000	S24L178	0.000	S24L179	0.000
S24L180	0.000	S24L181	0.000	S24L182	0.000	S24L183	0.000	S24L184	0.000
S24L185	0.000	S24L186	0.000	S24L187	0.000	S24L188	0.000	S24L189	0.000
S24L190	0.000	S24L191	0.000	S24L192	0.000	S24L193	0.000	S24L194	0.000
S24L195	0.000	S24L196	0.000	S24L197	0.000	S24L198	0.000	S24L199	0.000
S24L200	0.000	S24L201	0.000	S24L202	0.000	S24L203	0.000	S24L204	0.000
S24L205	0.000	S24L206	0.000	S24L207	0.000	S24L208	0.000	S24L209	0.000
S24L210	0.000	S24L211	0.000	S24L212	0.000	S24L213	0.000	S24L214	0.000
S24L215	0.000	S24L216	0.000	S24L217	0.000	S24L218	0.000	S24L219	0.000
S24L220	0.000	S24L221	0.000	S24L222	0.000	S24L223	0.000	S24L224	0.000
S24L225	0.000	S24L226	0.000	S24L227	0.000	S24L228	0.000	S24L229	0.000
S24L230	0.000	S24L231	0.000	S24L232	0.000	S24L233	0.000	S24L234	0.000
S24L235	0.000	S24L236	0.000	S24L237	0.000	S24L238	0.000	S24L239	0.000
S24L240	0.000	S24L241	0.000	S24L242	0.000	S24L243	0.000	S24L244	0.000
S24L245	0.000	S24L246	0.000	S24L247	0.000	S24L248	0.000	S24L249	0.000
S24L250	0.000	S24L251	0.000	S24L252	0.000	S24L253	0.000	S24L254	0.000
S24L255	0.000	S24L256	0.000	S24L257	0.000	S24L258	0.000	S24L259	0.000
S24L260	0.000	S24L261	0.000	S24L262	0.000	S24L263	0.000	S24L264	0.000
S24L265	0.000	S24L266	0.000	S24L267	0.000	S24L268	0.000	S24L269	0.000
S24L270	0.000	S24L271	0.000	S24L272	0.000	S24L273	0.000	S24L274	0.000
S24L275	0.000	S24L276	0.000	S24L277	0.000	S24L278	0.000	S24L279	0.000
S24L280	0.000	S24L281	0.000	S24L282	0.000	S24L283	0.000	S24L284	0.000
S24L285	0.000	S24L286	0.000	S24L287	0.000	S24L288	0.000	S24L289	0.000
S24L290	0.000	S24L291	0.000	S24L292	0.000	S24L293	0.000	S24L294	0.000
S24L295	0.000	S24L296	0.000	S24L297	0.000	S24L298	0.000	S24L299	0.000
S24L300	0.000	S24L301	0.000	S24L302	0.000	S24L303	0.000	S24L304	0.000
S24L305	0.000	S24L306	0.000	S24L307	0.000	S24L308	0.000	S24L309	0.000
S24L310	0.000	S24L311	0.000	S24L312	0.000	S24L313	0.000	S24L314	0.000
S24L315	0.000	S24L316	0.000	S24L317	0.000	S24L318	0.000	S24L319	0.000
S24L320	0.000	S24L321	0.000	S24L322	0.000	S24L323	0.000	S24L324	0.000
S24L325	0.000	S24L326	0.000	S24L327	0.000	S24L328	0.000	S24L329	0.000
S24L330	0.000	S24L331	0.000	S24L332	0.000	S24L333	0.000	S24L334	0.000
S24L335	0.000	S24L336	0.000	S24L337	0.000	S24L338	0.000	S24L339	0.000
S24L340	0.000	S24L341	0.000	S24L342	0.000	S24L343	0.000	S24L344	0.000
S24L345	0.000	S24L346	0.000	S24L347	0.000	S24L348	0.000	S24L349	0.000
S24L350	0.000	S24L351	0.000	S24L352	0.000	S24L353	0.000	S24L354	0.000
S24L355	0.000	S24L356	0.000	S24L357	0.000	S24L358	0.000	S24L359	0.000
S24L360	0.000	S24L361	0.000	S24L362	0.000	S24L363	0.000	S24L364	0.000
S24L365	0.000	S24L366	0.000	S24L367	0.000	S24L368	0.000	S24L369	0.000
S24L370	0.000	S24L371	0.000	S24L372	0.000	S24L373	0.000	S24L374	0.000
S24L375	0.000	S24L376	0.000	S24L377	0.000	S24L378	0.000	S24L379	0.000
S24L380	0.000	S24L381	0.000	S24L382	0.000	S24L383	0.000	S24L384	0.000
S24L385	0.000	S24L386	0.000	S24L387	0.000	S24L388	0.000	S24L389	0.000
S24L390	0.000	S24L391	0.000	S24L392	0.000	S24L393	0.000	S24L394	0.000
S2									

DOLLARS IN THOUSANDS

COST CATEGORIES

INVESTMENT

GENERAL ADMINISTRATION
PERSONNEL ACQUISITION

LEVEL 1	0.00
LEVEL 2	0.00
LEVEL 3	0.00
LEVEL 4	0.00
LEVEL 5	0.00

OFFICE EQUIPMENT--CAPITALIZED

0.00

OFFICE SUPPLIES AND MATERIALS

6.00

COMMUNICATIONS AND PRINTING

0.00

CONSULTANTS AND CONTRACTS

0.00

CONSULTANTS
CONTRACTS

0.00
0.00

OPERATIONS AND MAINTENANCE SUPPLIES

0.00

STAGE 1 INSTRUCTION
PERSONNEL ACQUISITION

LEVEL 1	0.00
LEVEL 2	0.00
LEVEL 3	0.00
LEVEL 4	0.00
LEVEL 5	0.00

6.00

EQUIPMENT--CAPIT. AND NOT CAPITAL.

0.00

CLASSROOM
OFFICE

23.15
0.35

SUPPLIES AND MATERIALS

23.50

CLASSROOM
OFFICE

0.00
0.00

COMMUNICATIONS AND PRINTING

0.00

CONSULTANTS AND CONTRACTS

0.00

CONSULTANTS
CONTRACTS

0.00
0.00

OPERATIONS AND MAINTENANCE SUPPLIES

0.00

0.00

STAGE 2 INSTRUCTION PERSONNEL ACQUISITION

LEVEL 1 0.00
 LEVEL 2 0.00
 LEVEL 3 0.00
 LEVEL 4 0.00
 LEVEL 5 0.00

23.50

EQUIPMENT--CAPIT. AND NOT CAPITAL.

CLASSROOM 26.26
 OFFICE 0.35

26.61

SUPPLIES AND MATERIALS

CLASSROOM 0.00
 OFFICE 0.00

0.00

COMMUNICATIONS AND PRINTING

0.00

CONSULTANTS AND CONTRACTS

0.00

CONSULTANTS CONTRACTS

0.00

OPERATIONS AND MAINTENANCE SUPPLIES

0.00

26.61

STAGE 3-4 INSTRUCTION PERSONNEL ACQUISITION

LEVEL 1 0.00
 LEVEL 2 0.00
 LEVEL 3 0.00
 LEVEL 4 0.00
 LEVEL 5 0.00

0.00

EQUIPMENT--CAPIT. AND NOT CAPITAL.

CLASSROOM 26.16
 OFFICE 0.35

26.51

SUPPLIES AND MATERIALS

CLASSROOM 0.00
 OFFICE 0.00

0.00

COMMUNICATIONS AND PRINTING

0.00

CONSULTANTS AND CONTRACTS

0.00

CONSULTANTS CONTRACTS

0.00

OPERATIONS AND MAINTENANCE SUPPLIES

0.00

26.51

STAGE 5 INSTRUCTION PERSONNEL ACQUISITION

LEVEL 1
LEVEL 2
LEVEL 3
LEVEL 4
LEVEL 5

0.00
0.00
0.00
0.00
0.00

0.00

EQUIPMENT--CAPIT. AND NOT CAPITAL.

CLASSROOM
OFFICE

0.00
0.00

0.00

SUPPLIES AND MATERIALS

CLASSROOM
OFFICE

0.00
0.00

0.00

COMMUNICATIONS AND PRINTING

CONSULTANTS AND CONTRACTS

CONSULTANTS
CONTRACTS

0.00
0.00

0.00

OPERATIONS AND MAINTENANCE SUPPLIES

0.00

0.00

STAGE 6 INSTRUCTION
PERSONNEL ACQUISITION

LEVEL 1
LEVEL 2
LEVEL 3
LEVEL 4
LEVEL 5

0.00
0.00
0.00
0.00
0.00

0.00

EQUIPMENT--CAPIT. AND NOT CAPITAL.

CLASSROOM
OFFICE

0.00
0.00

0.00

SUPPLIES AND MATERIALS

CLASSROOM
OFFICE

0.00
0.00

0.00

COMMUNICATIONS AND PRINTING

CONSULTANTS AND CONTRACTS

CONSULTANTS
CONTRACTS

0.00
0.00

0.00

OPERATIONS AND MAINTENANCE SUPPLIES

0.00

0.00

STAGE 7 INSTRUCTION
PERSONNEL ACQUISITION

LEVEL 1
LEVEL 2

0.00
0.00

0.00

LEVEL 3	0.00	
LEVEL 4	0.00	
LEVEL 5	0.00	0.00
EQUIPMENT--CAPIT. AND NOT CAPITAL.		
CLASSROOM OFFICE	0.00	
SUPPLIES AND MATERIALS	0.00	0.00
CLASSROOM OFFICE	0.00	
COMMUNICATIONS AND PRINTING	0.00	0.00
CONSULTANTS AND CONTRACTS	0.00	0.00
CONSULTANTS CONTRACTS	0.00	0.00
OPERATIONS AND MAINTENANCE SUPPLIES	0.00	0.00
STAFF DEVELOPMENT PERSONNEL		
LEVEL 1	0.00	
LEVEL 2	0.00	
LEVEL 3	37.61	
LEVEL 4	25.57	
LEVEL 5	15.33	
STUDENT AIDES	3.15	
CHILDREN AND COMMUNITY PEOPLE	1.15	
EQUIPMENT--CAPITALIZED		82.81
CLASSROOM OFFICE	0.00	
SUPPLIES AND MATERIALS	0.00	0.00
CLASSROOM OFFICE	2.00	
COMMUNICATIONS AND PRINTING	1.50	3.50
FACILITY RENTAL		0.35
TRAVEL		2.00
IN TOWN, PROFESSIONALS	0.52	
OUT OF TOWN, PROFESSIONALS	2.66	
CONSULTANTS AND CONTRACTS		3.18
CONSULTANTS CONTRACTS	45.00	
OPERATIONS AND MAINTENANCE SUPPLIES	25.80	70.80
		0.00

DAY CARE-STAFF TRAINING PARTICIPANTS

PERSONNEL 0.00
 EQUIPMENT AND MATERIALS 0.00
 FACILITY RENTAL 0.00
 OTHER 0.00

0.00

 162.65

COMMUNITY ACTIVITIES
 PERSONNEL ACQUISITION

LEVEL 1 0.00
 LEVEL 2 0.00
 LEVEL 3 0.00
 LEVEL 4 0.00
 LEVEL 5 0.00

0.00

EQUIPMENT--CAPITALIZED

CLASSROOM 0.00
 OFFICE 0.00

0.00

SUPPLIES AND MATERIALS

CLASSROOM 0.00
 OFFICE 0.00

0.00

COMMUNICATIONS AND PP. TING

0.00

CONSULTANTS AND CONTRACTS

CONSULTANTS 0.00
 CONTRACTS 0.00

0.00

OPERATIONS AND MAINTENANCE SUPPLIES

0.00

TOTAL INVESTMENT

245.26

ANNUAL OPERATING
GENERAL ADMINISTRATION
PERSONNEL

LEVEL 1 0.00
 LEVEL 2 0.00
 LEVEL 3 50.80
 LEVEL 4 0.00
 LEVEL 5 11.72
 ANNUAL PERSONNEL ACQUISITION 0.00
 OFFICE EQUIPMENT 62.52

CAPITALIZED 0.60
 NOT CAPITALIZED 3.00

OFFICE SUPPLIES AND MATERIALS 3.60
 COMMUNICATIONS, PRINTING, FACILITIES 0.80

COMMUNICATIONS 1.50
 PRINTING AND REPRODUCTION 1.75
 FACILITY RENTAL 0.00

TRAVEL 3.25

IN TOWN, PROFESSIONALS 0.18
 OUT OF TOWN, PROFESSIONALS 1.48

CONSULTANTS AND CONTRACTS 1.66

CONSULTANTS 0.00
 CONTRACTS 40.00

OPERATIONS AND MAINTENANCE 40.00

PERSONNEL 7.83
 SUPPLIES AND MATERIALS 7.83

STAGE 1 INSTRUCTION PERSONNEL 15.66
 127.49

LEVEL 1 0.00
 LEVEL 2 0.00
 LEVEL 3 25.40
 LEVEL 4 17.60
 LEVEL 5 23.44
 ANNUAL PERSONNEL ACQUISITION 0.00
 STIPENDS (STUDENTS) 4.05

EQUIPMENT -- CAPITALIZED 70.49

CLASSROOM OFFICE 4.63
 0.04

EQUIPMENT--NOT CAPITALIZED 4.66

CLASSROOM OFFICE	1.25	
	0.05	
	-----	1.30
SUPPLIES AND MATERIALS		
CLASSROOM OFFICE	35.03	
	0.30	
	-----	35.33
COMMUNICATIONS, PRINTING, FACILITIES		
COMMUNICATIONS	0.75	
PRINTING AND REPRODUCTION	0.75	
FACILITY RENTAL	0.00	
	-----	1.50
TRAVEL		
IN TOWN, PROFESSIONALS	0.04	
IN TOWN, STUDENTS	0.31	
OUT OF TOWN, PROFESSIONALS	0.59	
	-----	0.94
CONSULTANTS AND CONTRACTS		
CONSULTANTS	2.31	
CONTRACTS	3.50	
	-----	10.81
OPERATIONS AND MAINTENANCE		
PERSONNEL	8.47	
SUPPLIES AND MATERIALS	8.47	
	-----	16.94
LUNCH PROGRAM		
	-----	21.88
		163.85
STAGE 2 INSTRUCTION PERSONNEL		
LEVEL 1	0.00	
LEVEL 2	0.00	
LEVEL 3	38.10	
LEVEL 4	26.40	
LEVEL 5	23.44	
ANNUAL PERSONNEL ACQUISITION	0.00	
STIPENDS (STUDENTS)	2.70	
	-----	90.64
EQUIPMENT--CAPITALIZED		
CLASSROOM OFFICE	5.25	
	0.04	
	-----	5.29
EQUIPMENT--NOT CAPITALIZED		
CLASSROOM OFFICE	1.00	
	0.05	
	-----	1.05
SUPPLIES AND MATERIALS		
CLASSROOM OFFICE	41.47	
	0.30	
	-----	41.77
COMMUNICATIONS, PRINTING, FACILITIES		

COMMUNICATIONS	0.75	
PRINTING AND REPRODUCTION	0.75	
FACILITY RENTAL	0.00	1.50
TRAVEL	-----	
IN TOWN, PROFESSIONALS	0.06	
IN TOWN, STUDENTS	0.35	
OUT OF TOWN, PROFESSIONALS	0.89	1.30
CONSULTANTS AND CONTRACTS	-----	
CONSULTANTS	2.31	
CONTRACTS	5.50	7.81
OPERATIONS AND MAINTENANCE	-----	
PERSONNEL	10.27	
SUPPLIES AND MATERIALS	10.27	20.53
LUNCH PROGRAM	-----	
STAGE 3-4 INSTRUCTION	29.38	29.38
PERSONNEL	-----	199.26
LEVEL 1	0.00	
LEVEL 2	0.00	
LEVEL 3	50.80	
LEVEL 4	35.20	
LEVEL 5	23.44	
ANNUAL PERSONNEL ACQUISITION	0.00	
STIPENDS (STUDENTS)	2.70	112.14
EQUIPMENT--CAPITALIZED	-----	
CLASSROOM	5.23	
OFFICE	0.04	
EQUIPMENT--NOT CAPITALIZED	-----	5.27
CLASSROOM	1.00	
OFFICE	0.05	1.05
SUPPLIES AND MATERIALS	-----	
CLASSROOM	47.91	
OFFICE	0.30	48.21
COMMUNICATIONS, PRINTING, FACILITIES	-----	
COMMUNICATIONS	0.75	
PRINTING AND REPRODUCTION	0.75	
FACILITY RENTAL	0.00	
TRAVEL	-----	1.50
IN TOWN, PROFESSIONALS	0.08	
IN TOWN, STUDENTS	1.16	
OUT OF TOWN, PROFESSIONALS	1.18	

CONSULTANTS AND CONTRACTS	-----	2,442
CONSULTANTS	2,31	
CONTRACTS	6,00	
	-----	8,31
OPERATIONS AND MAINTENANCE		
PERSONNEL	12,33	
SUPPLIES AND MATERIALS	12,33	
	-----	24,67
LUNCH PROGRAM		
	-----	36,25

STAGE 5 INSTRUCTION PERSONNEL		239,82
LEVEL 1	0,00	
LEVEL 2	0,00	
LEVEL 3	0,00	
LEVEL 4	0,00	
LEVEL 5	0,00	
ANNUAL PERSONNEL ACQUISITION	0,00	
	-----	0,00
EQUIPMENT--CAPITALIZED		
CLASSROOM OFFICE	0,00	
	0,00	
	-----	0,00
EQUIPMENT--NOT CAPITALIZED		
CLASSROOM OFFICE	0,00	
	0,00	
	-----	0,00
SUPPLIES AND MATERIALS		
CLASSROOM OFFICE	0,00	
	0,00	
	-----	0,00
COMMUNICATIONS, PRINTING, FACILITIES		
COMMUNICATIONS	0,00	
PRINTING AND REPRODUCTION	0,00	
FACILITY RENTAL	0,00	
	-----	0,00
TRAVEL		
IN TOWN, PROFESSIONALS	0,00	
IN TOWN, STUDENTS	0,00	
OUT OF TOWN, PROFESSIONALS	0,00	
	-----	0,00
CONSULTANTS AND CONTRACTS		
CONSULTANTS	0,00	
CONTRACTS	0,00	
	-----	0,00
OPERATIONS AND MAINTENANCE		
PERSONNEL	0,00	
SUPPLIES AND MATERIALS	0,00	
	-----	0,00

ANNUAL PERSONNEL ACQUISITION	0.00	0.00
EQUIPMENT--CAPITALIZED	-----	-----
CLASSROOM OFFICE	0.00	0.00
CLASSROOM OFFICE	0.00	-----
EQUIPMENT--NOT CAPITALIZED	-----	0.00
CLASSROOM OFFICE	0.00	0.00
CLASSROOM OFFICE	0.00	-----
SUPPLIES AND MATERIALS	-----	0.00
CLASSROOM OFFICE	0.00	0.00
CLASSROOM OFFICE	0.00	-----
COMMUNICATIONS, PRINTING, FACILITIES	-----	0.00
COMMUNICATIONS	0.00	0.00
PRINTING AND REPRODUCTION	0.00	0.00
FACILITY RENTAL	0.00	-----
TRAVEL	-----	0.00
IN TOWN, PROFESSIONALS	0.00	0.00
IN TOWN, STUDENTS	0.00	0.00
OUT OF TOWN, PROFESSIONALS	0.00	-----
CONSULTANTS AND CONTRACTS	-----	0.00
CONSULTANTS	0.00	0.00
CONTRACTS	0.00	-----
OPERATIONS AND MAINTENANCE	-----	0.00
PERSONNEL	0.00	0.00
SUPPLIES AND MATERIALS	0.00	-----
LUNCH PROGRAM	-----	0.00
STAFF DEVELOPMENT PERSONNEL	-----	0.00
LEVEL 1	0.00	0.00
LEVEL 2	0.00	0.00
LEVEL 3	12.70	0.00
LEVEL 4	0.00	0.00
LEVEL 5	0.00	0.00
SUBSTITUTES	8.60	0.00
ANNUAL PERSONNEL ACQUISITION	0.00	0.00
PRE-SERVICE TRAINING--NEW PERSONNEL	-----	21.50
EQUIPMENT--CAPITALIZED	-----	-----
CLASSROOM OFFICE	0.00	0.00
CLASSROOM OFFICE	0.00	-----
EQUIPMENT--NOT CAPITALIZED	-----	0.00

CLASSROOM OFFICE	0.00	
	0.00	
	-----	0.00
SUPPLIES AND MATERIALS		
CLASSROOM OFFICE	0.00	
	0.00	
	-----	0.00
COMMUNICATIONS, PRINTING, FACILITIES		
COMMUNICATIONS	0.00	
PRINTING AND REPRODUCTION	0.00	
FACILITY RENTAL	0.00	
	-----	0.00
TRAVEL		
IN TOWN, PROFESSIONALS	9.00	
OUT OF TOWN, PROFESSIONALS	0.30	
	-----	0.00
CONSULTANTS AND CONTRACTS		
CONSULTANTS	0.00	
CONTRACTS	7.00	
	-----	7.00
OPERATIONS AND MAINTENANCE		
PERSONNEL	2.00	
SUPPLIES AND MATERIALS	2.00	
	-----	3.99

		32.49
COMMUNITY ACTIVITIES		
PERSONNEL		
LEVEL 1	0.00	
LEVEL 2	0.00	
LEVEL 3	16.06	
LEVEL 4	17.90	
LEVEL 5	82.86	
ANNUAL PERSONNEL ACQUISITION	0.00	
STIPENDS (STUDENTS)	18.00	
	-----	134.82
EQUIPMENT--CAPITALIZED		
CLASSROOM OFFICE	0.00	
	1.50	
	-----	1.50
EQUIPMENT--NOT CAPITALIZED		
CLASSROOM OFFICE	0.00	
	7.50	
	-----	7.50
SUPPLIES AND MATERIALS		
CLASSROOM OFFICE	3.25	
	3.00	
	-----	6.25
COMMUNICATIONS, PRINTING, FACILITIES		
COMMUNICATIONS	0.75	
PRINTING AND REPRODUCTION	5.00	
FACILITY RENTAL	0.00	

TRAVEL	-----	5.75
IN TOWN, PROFESSIONALS	2.59	
IN TOWN, STUDENTS	0.00	
OUT OF TOWN, PROFESSIONALS	10.36	
CONSULTANTS AND CONTRACTS	-----	12.95
CONSULTANTS	13.50	
CONTRACTS	50.00	
OPERATIONS AND MAINTENANCE	-----	63.50
PERSONNEL	15.00	
SUPPLIES AND MATERIALS	15.00	
FOOD	-----	30.00
		0.00
TOTAL ANNUAL OPERATING	-----	262.27

TOTAL RESEARCH AND DEVELOPMENT,		1025.17
INITIAL INVESTMENT, ANNUAL OPERATING	-----	-----
		1270.43

YEARS OF OPERATION

SENSITIVITY PARAMETERS

SELECTED DATA VALUES

INVESTMENT
 PERSONNEL ACQUISITION
 PERSONNEL (STAFF TRAINING)
 CLASSROOM EQUIPMENT--CAPITALIZED
 OFFICE EQUIPMENT--CAPITALIZED
 CLASSROOM SUPPLIES + MATERIALS
 OFFICE SUPPLIES + MATERIALS
 COMMUNICATIONS + PRINTING
 FACILITY RENTAL (STAFF TRAINING)
 IN-TOWN TRAVEL, PROFESSIONALS
 OUT-OF-TOWN TRAVEL, PROFESSIONALS
 CONSULTANTS
 CONTRACTS
 OPERATIONS + MAINTENANCE SUPPLIES

245.26
 0.00
 82.81
 75.56
 7.05
 2.00
 1.50
 0.35
 2.00
 0.52
 2.66
 45.00
 25.80
 0.00

ANNUAL OPERATING
 PERSONNEL(LESS PERKS,ACQUISITION)
 PERSONNEL ACQUISITION
 STIPENDS (STUDENTS)
 CLASSROOM EQUIPMENT--CAPITALIZED
 OFFICE EQUIPMENT--CAPITALIZED
 CLASSROOM EQUIPMENT--NOT CAPITAL.
 OFFICE EQUIPMENT--NOT CAPITALIZED
 CLASSROOM SUPPLIES + MATERIALS
 OFFICE SUPPLIES + MATERIALS
 COMMUNICATIONS + PRINTING
 FACILITY RENTAL
 IN-TOWN TRAVEL, PROFESSIONALS
 IN-TOWN TRAVEL, STUDENTS
 OUT-OF-TOWN TRAVEL, PROFESSIONALS
 CONSULTANTS
 CONTRACTS
 OPERATIONS + MAINTENANCE
 LUNCH PROGRAM
 FOOD (COMMUNITY ACTIVITIES)

1025.17
 492.11
 0.00
 15.11
 2.21
 3.25
 10.65
 127.65
 4.70
 13.50
 0.00
 2.95
 1.82
 14.50
 20.44
 117.00
 111.78
 87.50
 0.00

TOTAL NUMBER OF STUDENTS

STAGE 1
 STAGE 2
 STAGE 3-4
 STAGE 5
 STAGE 6
 STAGE 7

700.00
 175.00
 235.00
 290.00
 0.00
 0.00
 0.00

TOTAL NUMBER OF STAFF(LESS DAY CARE)

BY LEVEL
 LEVEL 1
 LEVEL 2
 LEVEL 3
 LEVEL 4
 LEVEL 5
 BY ACTIVITY
 GENERAL ADMINISTRATION
 STAGE 1

63.00
 0.00
 0.00
 17.00
 16.00
 30.00
 6.00
 8.00

STAGE 2 10.00
 STAGE 3-4 12.00
 STAGE 5 0.00
 STAGE 6 0.00
 STAGE 7 0.00
 STAFF TRAINING 1.00
 COMMUNITY ACTIVITIES 26.00

TOTAL NO. OF PROFESS.(LESS DAY CARE)

GENERAL ADMINISTRATION 33.00
 STAGE 1 4.00
 STAGE 2 4.00
 STAGE 3-4 6.00
 STAGE 5 8.00
 STAGE 6 0.00
 STAGE 7 0.00
 STAFF TRAINING 0.00
 COMMUNITY ACTIVITIES 1.00
 10.00

STAFF RECEIVING ANNUAL STAFF TRAIN.

LEVEL 1 0.00
 LEVEL 2 0.00
 LEVEL 3 0.00
 LEVEL 4 0.00
 LEVEL 5 0.00

STUDENT-TOTAL STAFF(-COM)-ST)RATIO

19.44

STUDENT TO STAFF RATIOS BY STAGES

AVERAGE FOR ALL STAGES
 STAGE 1 23.33
 STAGE 2 21.88
 STAGE 3-4 23.50
 STAGE 5 24.17
 STAGE 6 0.00
 STAGE 7 0.00

STUDENT-TOTAL PROF.(-COM)-ST)RATIO

31.82

STUDENT-PROF. STAFF RATIOS BY STAGE

AVERAGE FOR ALL STAGES
 STAGE 1 38.89
 STAGE 2 43.75
 STAGE 3-4 39.17
 STAGE 5 36.25
 STAGE 6 0.00
 STAGE 7 0.00

TOTAL INVEST.(LESS COMM)/STUDENT

350.00

INVESTMENT COST BY STAGE PER STUDENT

AVERAGE FOR ALL STAGES
 STAGE 1 109.00
 STAGE 2 134.00
 STAGE 3-4 113.00
 STAGE 5 91.00
 STAGE 6 0.00
 STAGE 7 0.00

CLASS-EEP.+SUPP.+INVEST.BY STAGE/STUD

AVERAGE FOR ALL STAGES 107.00

STAGE 1	132.00
STAGE 2	111.00
STAGE 3-4	90.00
STAGE 5	0.00
STAGE 6	0.00
STAGE 7	0.00

STF TRN. INVEST. PER STAFF PER. TRNEO 0.00,

TOT. OPERATING COST(-LUNCH)-COMM) 675.41

TOT. OP. COST(-LUNCH)-COMM)/STUDENT 964.67

OP. COST(-LUNCH)BY STAGE/STUDENT
AVERAGE FOR ALL STAGES

STAGE 1	736.33
STAGE 2	611.27
STAGE 3-4	722.92
STAGE 5	701.97
STAGE 6	0.00
STAGE 7	0.00

ANN. CLASS. EQUIP. + SUPPL. /STUDENT
AVERAGE FOR ALL STAGES

STAGE 1	203.95
STAGE 2	233.74
STAGE 3-4	203.05
STAGE 5	186.70
STAGE 6	
STAGE 7	

ANN. STF. TRNING COST/STF. PER. TRNEO,

APPENDIX B

	I. INPUTS SAME FOR ALL ACTIVITIES
	A. <u>Personnel Salaries and Wages</u>
L1AS	Level 1 average annual salary
L2AS	Level 2 average annual salary
L3AS	Level 3 average annual salary
L4AS	Level 4 average annual salary
L5AS	Level 5 average annual salary
L4HW	Hourly wage per Level 4 trainee in initial staff training
L5HW	Hourly wage per Level 5 trainee in initial staff training
SDW	Daily wages per substitute
	B. <u>Personnel Acquisition Costs</u>
ACL1	Recruitment cost per person in Level 1
ACL2	Recruitment cost per person in Level 2
ACL3	Recruitment cost per person in Level 3
ACL4	Recruitment cost per person in Level 4
ACL5	Recruitment cost per person in Level 5
	C. <u>Personnel Turnover Rates</u>
L1TR	Annual turnover rate for Level 1
L2TR	Annual turnover rate for Level 2
L3TR	Annual turnover rate for Level 3
L4TR	Annual turnover rate for Level 4
L5TR	Annual turnover rate for Level 5
	D. <u>Personnel Travel</u>
PITTC	Cost per mile per professional (trainee and trainer in staff training) per in-town trip
SITTC	Cost per student per in-town trip
POTTC	Cost per professional (trainee and trainer in staff training) per out-of-town trip
POTTD	Number of days per out-of-town trip per professional (trainee and trainer in-staff training)
POTTDC	Per diem cost per professional (trainee and trainer)

ØERCF CERCF	<p>E. <u>Equipment</u></p> <p>Office equipment annual replacement consumption factor Classroom equipment annual replacement consumption factor</p>
ACØ	<p>F. <u>Communications</u></p> <p>Annual communications cost per office</p>
CDC CTC CTD CTDC	<p>G. <u>Consultants</u></p> <p>Cost per day per consultant Cost Per trip per consultant Number of days per trip per consultant Per diem cost per consultant for trips</p>
ØMPF ØMSF	<p>H. <u>Operations and Maintenance</u></p> <p>Operations and maintenance personnel cost factor Operations and maintenance supplies and materials cost factor</p>
ALCS	<p>I. <u>Lunch Program</u></p> <p>Annual cost for lunches per student in lunch program</p>
<p>II. GENERAL ADMINISTRATION</p>	
<p>A. <u>Inputs for Both Investment and Annual Operating</u></p>	
<p>1. <u>Number of People</u></p>	
GL1	Number of personnel Level 1 in general administration
GL2	Number of personnel Level 2 in general administration
GL3	Number of personnel Level 3 in general administration
GL4A	Number of personnel Level 4A (professional)
GL4B	Number of personnel Level 4B (non-professional)
GL5	Number of personnel Level 5 in general administration
GS4	Number of offices Level 4B in general administration

	<p>B. <u>Investment Inputs</u></p>
	<p>1. <u>Office Equipment--Capitalized</u></p>
GIFØEC	General administration initial fixed cost for office equipment, capitalized
GIØES4	General administration initial office equipment cost per office
	<p>2. <u>Office Supplies and Materials</u></p>
GIFØSM	General administration initial fixed cost of office supplies and material
GIØSS4	General administration initial office supplies and materials cost per office
	<p>3. <u>Communications and Printing</u></p>
GICP	General administration initial cost of communications and printing
	<p>4. <u>Consultants</u></p>
GCI	Number of consultants in investment phase in general administration
GCID	Number of days per consultant in investment phase in general administration
GITC	Number of initial trips per consultant in general administration
	<p>5. <u>Contracts</u></p>
GCØNI	Cost of contracts in investment phase in general administration
	<p>6. <u>Maintenance Supplies</u></p>
GIØMS	General administration initial cost for maintenance supplies

C. Annual Operating Inputs

1. Number of Offices

Number of offices in general administration

2. Office Equipment--Not Capitalized

General administration annual office equipment (not capitalized) cost per office

3. Office Supplies and Materials

General administration annual office supplies and materials cost per office

4. Printing, Reproduction, Facility Rental

General administration annual cost of printing and reproduction

General administration annual facility rental

5. Travel

Proportion of professionals in general administration taking annual in-town trips

Annual in-town miles per professional in general administration

Proportion of professionals in general administration taking annual out-of-town trips

Number of annual out-of-town trips per professional taking such trips in general administration

6. Consultants

Number of consultants annually in general administration

Number of days per consultant annually in general administration

Number of annual trips per consultant in general administration

	<p style="text-align: center;">7. <u>Contracts</u></p> <p style="text-align: center;">Cost of contracts annually in general administration</p> <p>GCØNA</p> <p>III. STAGE 1 INSTRUCTION</p> <p>A. <u>Inputs for Both Investment and Annual Operating</u></p> <p>1. <u>Number of People</u></p> <p>S1S Number of students in Stage 1</p> <p>S1L1 Number of personnel Level 1 in Stage 1</p> <p>S1L2 Number of personnel Level 2 in Stage 1</p> <p>S1L3 Number of personnel Level 3 in Stage 1</p> <p>S1L4A Number of personnel Level 4A (Professional)</p> <p>S1L4B Number of personnel Level 4B (Non-Professional)</p> <p>S1L5 Number of personnel Level 5</p> <p>S1Ø Number of offices</p> <p>B. <u>Investment Inputs</u></p> <p>1. <u>Equipment--Capitalized</u></p> <p>S1IFCC Stage 1 initial fixed cost for classroom equipment, capitalized</p> <p>S1ICCS Stage 1 initial cost per student in Stage 1 for classroom equipment, capitalized</p> <p>S1IFØC Stage 1 initial fixed cost for office equipment, capitalized</p> <p>S1IØSA Stage 1 initial office equipment cost per office</p> <p>2. <u>Supplies and Materials</u></p> <p>S1IFCS Stage 1 initial fixed cost for classroom supplies and materials</p> <p>S1ICSS Stage 1 initial cost per student in Stage 1 for classroom supplies and materials</p> <p>S1IFØS Stage 1 initial fixed cost of office supplies and materials</p> <p>S1IØSS Stage 1 initial office supplies and materials cost per office</p>
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	3. <u>Communications and Printing</u>
SIICP	Stage 1 initial cost of communications and printing
	4. <u>Consultants</u>
SI1CI	Number of consultants in investment phase in Stage 1
SI1CID	Number of days per consultant in investment phase in Stage 1
SI1TC	Number of initial trips per consultant in Stage 1
	5. <u>Contracts</u>
SI1CNI	Cost of contracts in investment phase in Stage 1
	6. <u>Maintenance Supplies</u>
SI1CMS	Stage 1 initial cost of maintenance supplies
	C. <u>Annual Operating Inputs</u>
	1. <u>Number of Offices</u>
SI1C	Number of offices in Stage 1
	2. <u>Equipment--Not Capitalized</u>
SI1AFC	Stage 1 annual fixed cost for classroom equipment, not capitalized
SI1ACS	Stage 1 annual cost per student in Stage 1 for classroom equipment, not capitalized
SI1AOS4	Stage 1 annual office equipment cost, not capitalized, per office
	3. <u>Supplies and Materials</u>
SI1AFCS	Stage 1 annual fixed cost for classroom supplies
SI1ACSS	Stage 1 annual cost per student in Stage 1 for classroom supplies and materials
SI1AOS5	Stage 1 annual cost per office, for office supplies and materials

<p>S1APR S1FR</p>	<p>4. <u>Printing, Reproduction, Facility Rental</u> Stage 1 annual cost of printing and reproduction Stage 1 annual cost of facility rental</p>
<p>S1PITF S1PAIT S1SITF</p>	<p>5. <u>Travel</u> Proportion of professionals in Stage 1 taking annual in-town trips Annual in-town miles per professional in Stage 1 Proportion of students in Stage 1 taking annual in-town trips</p>
<p>S1SAIT S1POTF S1PAOT</p>	<p>Cost per trip per child Proportion of professionals in Stage 1 taking annual out-of-town trips Number of annual out-of-town trips per professional taking such trips in Stage 1</p>
<p>S1CA S1CAD S1ATC</p>	<p>6. <u>Consultants</u> Number of consultants annually in Stage 1 Number of days per consultant annually in Stage 1 Number of annual trips per consultant in Stage 1</p>
<p>S1CONA</p>	<p>7. <u>Contracts</u> Cost of contracts annually in Stage 1</p>
<p>S1SLF</p>	<p>8. <u>Lunch Program</u> Proportion of students in Stage 1 in lunch program</p>

IX. STAFF TRAINING

A. Inputs for Both Investment and Annual Operation

1. Number of People

STL1	Number of Level 1 personnel in staff training acting as trainers full time
STL2	Number of Level 2 personnel in staff training acting as trainers full time
STL3	Number of Level 3 personnel in staff training acting as trainers
STL4A	Number of Level 4A (professionals)
STL4B	Number of Level 4B (nonprofessionals)
STL5	Number of Level 5 personnel in staff training acting as trainers full time

B. Investment Inputs

1. Initial Training or Community People, Students, and Children

STSA	Number of student aide trainees in initial staff training
STIC	Number of children involved in initial staff training
STICW	Number of community people involved in initial staff training

2. Period of Initial Training

STIWKS	Length (in weeks) of staff training in investment phase
STWL1T	Number of weeks per Level 1 trainer
STWL2T	Number of weeks per Level 2 trainer
STWL3T	Number of weeks per Level 3 trainer
STWL4T	Number of weeks per Level 4 trainer
STWL5T	Number of weeks per Level 5 trainer
STWL1	Number of weeks of initial staff training per Level 1 trainee
STWL2	Number of weeks of initial staff training per Level 2 trainee
STWL3	Number of weeks of initial staff training per Level 3 trainee

STIWL4	Total number of hours of initial staff training per Level 4 trainee
STIWL5	Total number of hours of initial staff training per Level 5 trainee
STSAH	Total number of hours of training per student aide trainee in initial staff training
STWC	Number of weeks in initial staff training per child
STIHWK	Hours per week per child in initial staff training
STIDCP	Number of days in initial staff training per community person
	3. <u>Cost of Initial Training for Community People, Students, and Children</u>
STSAHR	Hourly wage rate per student aide trainee in initial staff training
STIRHC	Wage rate (per hour) per child in initial staff training
STIRCP	Wage rate per day per community person in initial staff training
	4. <u>Proportion of Personnel Receiving Initial Training</u>
STIFL1	Proportion of Level 1 personnel who do receive initial staff training
STIFL2	Proportion of Level 2 personnel who do receive initial staff training
STIFL3	Proportion of Level 3 personnel who do receive initial staff training
STIFL4	Proportion of Level 4 personnel who do receive initial staff training
STIFL5	Proportion of Level 5 personnel who do receive initial staff training
	5. <u>Equipment--Capitalized</u>
STIFCC	Staff training initial fixed cost for classroom equipment, capitalized
STICCT	Staff training initial cost <u>per trainee</u> for classroom equipment, capitalized
STIFOC	Staff training initial fixed cost for office equipment, capitalized
STIOS4	Staff training initial office equipment cost per secretary, not capitalized

	6. <u>Supplies and Materials</u>
STIFCS	Staff training initial fixed cost for classroom supplies and materials
STICST	Staff training initial cost per trainee for classroom supplies and materials (including student aides)
STIFØS	Staff training initial fixed cost of office supplies and materials
STIØSS	Staff training initial office supplies and materials cost per secretary
	7. <u>Communications, Printing, and Facility Rental</u>
STICP	Staff training initial cost of communications and printing
STFRWK	Staff training weekly rental cost of facilities in investment phase
	8. <u>Travel</u>
STITF	Proportion of trainers in staff training taking initial in-town trips
STITTF	Initial in-town miles per trainer in staff training
STIØTF	Proportion of trainees and trainers in staff training taking initial out-of-town trips
STIØTT	Number of initial out-of-town trips per trainee and trainer taking such trips in staff training
STITFT	Proportion of trainees (less student aides) taking initial in-town trips
STHT	Initial in-town trips per trainee (less student aides)
STITFS	Total cost of in-town trips for student aide trainees
	9. <u>Consultants</u>
STCI	Number of consultants in initial staff training
STCID	Number of days per consultant in staff training
STITC	Number of initial trips per consultant
	10. <u>Contracts</u>
STCØNI	Cost of contracts in investment phase in staff training

	E. <u>Facility Rental</u>
STDCRW	Weekly facility rental for initial staff training day day care
	F. <u>Other</u>
STDCFØ	Initial staff training day care fixed cost for miscellaneous
STDCOW	Day care cost per week per child miscellaneous (i. e., refreshments)
	G. <u>Annual Operating Training</u>
	1. <u>Period of Annual Training</u>
STADL1	Number of days of staff training annually per Level 1 trainee
STADL2	Number of days of staff training annually per Level 2 trainee
STADL3	Number of days of staff training annually per Level 3 trainee
STADL4	Number of days of staff training annually per Level 4 trainee
STADL5	Number of days of staff training annually per Level 5 trainee
	2. <u>Proportion of Personnel Receiving Annual Training</u>
STAFL1	Proportion of Level 1 personnel who do receive annual staff training
STAFL2	Proportion of Level 2 personnel who do receive annual staff training
STAFL3	Proportion of Level 3 personnel who do receive annual staff training
STAFL4	Proportion of Level 4 personnel who do receive annual staff training
STAFL5	Proportion of Level 5 personnel who do receive annual staff training

STØ	<p>3. <u>Number of Offices</u></p> <p>Number of offices in staff training</p>
STAFB	<p>4. <u>Equipment--Not Capitalized</u></p> <p>Staff training annual fixed cost for classroom equipment, not capitalized</p>
STACT	Staff training annual cost per trainee for classroom equipment, not capitalized
STAØS4	Staff training annual office equipment cost per office, not capitalized
STACST	<p>5. <u>Supplies and Materials</u></p> <p>Staff training annual cost per trainee for classroom supplies and materials</p>
STAØST	Staff training annual cost per office for office supplies and materials
STAPR	<p>6. <u>Printing, Reproduction, and Facility Rental</u></p> <p>Staff training annual cost of printing and reproduction</p>
STAFR	Staff training annual cost of facility rental
STAITF	<p>7. <u>Travel</u></p> <p>Proportion of trainees and trainers in staff training taking annual in-town trips</p>
STAITT	Number of annual in-town trips per trainee and trainer taking such trips in staff training
STAØTF	Proportion of trainees and trainers in staff training taking annual out-of-town trips
STAØTT	Number of annual out-of-town trips per trainee and trainer taking such trips in staff training
STCA	<p>8. <u>Consultants</u></p> <p>Number of consultants annually in staff training</p>
STCAD	Number of days per consultant annually in staff training
STATC	Number of annual trips per consultant in staff training

STCØNA	<p>9. <u>Contracts</u></p> <p>Cost of contracts annually in staff training</p>
STIØMS	<p>10. <u>Maintenance Supplies</u></p> <p>Staff training initial cost of maintenance supplies</p>

X. COMMUNITY ACTIVITIES

A. Inputs for Both Investment and Annual Operating

1. Number of People

CS	Number of students in community activities
CL1	Number of personnel Level 1 in community activities
CL2	Number of personnel Level 2 in community activities
CL3	Number of personnel Level 3 in community activities
CL4A	Number of personnel Level 4A (Professionals)
CL4B	Number of personnel Level 4B (Non-professionals)
CL5	Number of personnel Level 5 in community activities
CS4	Number of secretaries, Level 4B, in community activities

B. Investment Inputs

1. Equipment--Capitalized

CIFCC	Community activities initial fixed cost for classroom equipment, capitalized
CICCS	Community activities initial cost per student in community activity for classroom equipment, capitalized
CIFOC	Community activities fixed cost for office equipment, capitalized
CIO4	Community activities initial office equipment cost per secretary, Level 4B

2. Supplies and Materials

CIFCS	Community activities initial fixed cost for classroom supplies and materials
CICSS	Community activities cost per student in community activities for classroom supplies and materials
CIFOS	Community activities initial fixed cost of office supplies and materials
CIOSS	Community activities initial office supplies and materials cost per secretary, Level 4B

	3. <u>Communications and Printing</u>
CICP	Community activities initial cost of communications and printing
	4. <u>Consultants</u>
CCI	Number of consultants in investment phase in community activities
CCID	Number of days per consultant in investment phase in community activities
CITC	Number of initial trips per consultant in community activities
	5. <u>Contracts</u>
CCONI	Cost of contracts in investment phase in community activities
	6. <u>Maintenance Supplies</u>
CIMS	Community activities initial cost of maintenance supplies
	C. <u>Annual Operating Inputs</u>
	1. <u>Number of Offices</u>
CO	Number of offices in community activities
	2. <u>Equipment--Not Capitalized</u>
CAFC	Community activities annual fixed cost for classroom equipment
CACS	Community activities annual cost per student in community activities for classroom equipment, not capitalized
CAOS4	Community activities annual office equipment cost, capitalized and not capitalized, per office

	3. <u>Supplies and Materials</u>
CACSS	Community activities annual cost per student in community activities for classroom supplies and materials
CAØSS4	Community activities annual cost per office, for office supplies and materials
	4. <u>Printing, Reproduction, Facility Rental</u>
CAPR	Community activities annual cost of printing and reproduction
CFR	Community activities annual cost of facility rental
	5. <u>Travel</u>
CPAITF	Proportion of professionals in community activities taking annual in-town trips
CPAIT	Annual in-town miles per professional in community activities
CSAITF	Proportion of students in community activities taking annual in-town trips
CSAIT	Annual in-town miles per student in community activities
CPAØTF	Proportion of professionals in community activities taking annual out-of-town trips
CPAØT	Number of annual out-of-town trips per professional taking such trips in community activity
	6. <u>Consultants</u>
CCA	Number of consultants annually in community activities
CCAD	Number of days per consultant annually in community activities
CATC	Number of annual trips per consultant in community activities
	7. <u>Contracts</u>
CCØNA	Cost of contracts annually in community activities
	8. <u>Food</u>
CFØØD	Community activities annual cost of food

TIME SHARING

The model is programmed in a time-sharing mode on a Burroughs 5500 Computer. However, it can readily be converted to batch mode for use in a center computer. Time sharing is a relatively inexpensive way of obtaining computer services without buying a computer. The model is run on a teletype terminal attached to a central computer by a telephone line. The cost model user obtains selected costs results immediately at the terminal and a full model print out is delivered to him within a few hours.

APPENDIX C

ANNUAL OPERATING COSTS

Chart Class	General Administration	Stage 1 ^a	Staff Development	Community Activities
Personnel: Level I Level II Level III Level IV Level V	GL1 • LIAS • (ONTW/2L.0) GL2 • LIAS • (ONTW/2L.0) GL3 • LIAS • (ONTW/2L.0) GL4 • LIAS • (ONTW/2L.0) GL5 • LIAS • (ONTW/2L.0)	SL1 • LIAS SL2 • LIAS SL3 • LIAS SL4 • LIAS SL5 • LIAS (SL1 • LITR) • ACL1 • (SL2 • LITR) • ACL1 • (SL3 • LITR) • ACL1 • (SL4 • LITR) • ACL1 • (SL5 • LITR) • ACL1 •	STL1 • LIAS STL2 • LIAS STL3 • LIAS STL4 • LIAS STL5 • LIAS (STL1 • LITR) • ACL1 • (STL2 • LITR) • ACL1 • (STL3 • LITR) • ACL1 • (STL4 • LITR) • ACL1 • (STL5 • LITR) • ACL1 •	CL1 • LIAS CL2 • LIAS CL3 • LIAS CL4 • LIAS CL5 • LIAS (CL1 • LITR) • ACL1 • (CL2 • LITR) • ACL1 • (CL3 • LITR) • ACL1 • (CL4 • LITR) • ACL1 • (CL5 • LITR) • ACL1 •
Supplies for Students				
Office Equipment Capitalized	Total investment for capitalized office equipment • OENCF GAOES4 • CO	Total investment cost for capitalized office equipment for Stage 1 • OENCF SIAM1 • SIO	Total investment cost for capitalized office equipment • OENCF STAGM4 • STC	Total investment cost for capitalized office equipment for community activities • OENCF CAOS1 • CO
Classroom Equipment Capitalized				
Not Capitalized				
Office Supplies and Materials				
Classroom Supplies and Materials				
Communications and Facility Rental Communications Facility Rental				
Travel In Term, Professional Out of Term, Professional In Term, Student				
Construction and Contracting Construction Contracting				
Operations and Maintenance Utilities Repairs and Materials				
Lunch Programs				
Total				

^a The cost estimates for Stages II through VII are the same as those shown for Stage I.