

creative associates

**STUDY OF USAID CONTRIBUTIONS TO
THE EGYPTIAN BASIC EDUCATION PROGRAM**

SUMMARY OF THE SECOND ANNUAL REPORT

SEPTEMBER 1985

3201 NEW MEXICO AVENUE, N.W. • SUITE 270 WASHINGTON, D.C. 20016 • (202) 966-5804 • TELEX: 440523 CREA
1901 N. MOORE ST. • SUITE 920 • ARLINGTON, VA 22209 • (703) 528-9626

9

STUDY OF USAID CONTRIBUTIONS TO THE
EGYPTIAN BASIC EDUCATION PROGRAM
(Contract No. 263-0139-C-00-3009-00)

SUMMARY OF THE SECOND ANNUAL REPORT

Submitted to: USAID/Cairo

September, 1985

Wells Hively, Ph.D., Team Leader
Nadia Makary, Ph.D., Project Coordinator
Wade M. Robinson, Ed.D., Senior Project Associate
Andrea Rugh, Ph.D., Anthropologist
Patricia E. Scully, Editor

CREATIVE ASSOCIATES, INC.
WASHINGTON, D.C.

ACKNOWLEDGEMENTS

We wish to express our gratitude to His Excellency, Abdel Salam Abdel-Ghaffar, Minister of Education; to His Excellency, Mohamed Kamal Monsour, First Undersecretary of Education; to His Excellency, Hamid Suliman, Undersecretary of Education; to Mr. Hassan Harass, Consultant to the Ministry of Education; to Mr. el Sawi Abdel Sami Ahmed and Mr. Azem el Saidi of the General Administration of Planning and Follow-up, Ministry of Education; and to the education officials of the governorates of Kafr il Sheikh, Beheira, Assiut, Sohag, and Qena, whose devotion to the quality of Egyptian education made this study possible. We also gratefully acknowledge the help of our hard working research assistant, Said Ali il Deeb, and the other field researchers who accompanied us in the data collection.

TABLE OF CONTENTS

	<u>Page</u>
Preface	v
Background	v
Chapter I: Intensive Study of New-School Communities	1
Chapter II: Extensive Study of the Impact of New Schools	23
Chapter III: Study of New Equipment	32
Chapter IV: Study of Technical Assistance	40

PREFACE

This is the Summary of the Second Annual Report of a four-year study of USAID contributions to the Egyptian Basic Education Program. The purpose of the study has been to collect information and develop theory that will help USAID and Ministry of Education (MOE) officials assess the impact of USAID contributions to the Egyptian Basic Education Program and plan future contributions to it, specifically in the areas of construction of new schools, provision of equipment for use in Basic Education classes, and provision of technical assistance to the Ministry of Education.

The USAID assistance is part of an unusually comprehensive, cooperative project designed to facilitate the development of the Basic Education Program and the extension of schooling to underserved populations. This study consists of four independent, but closely related, sub-studies: (1) the Intensive Study of New-School Communities, (2) the Extensive Study of the Impact of New Schools, (3) the Study of New Equipment, and (4) the Study of Technical Assistance. The Second Annual Report is designed so that the reader can fully understand the study and its progress to date without having to refer back to the First Annual Report.

The study officially began in January 1983. Preliminary site visits were made in February 1983, and major data collection efforts, involving site visits to villages where new schools were located and to schools where equipment was being utilized, took place in the fall of 1983 and the fall of 1984, with a follow-up visit to equipment schools in the spring of 1984. Data were also collected from Ministry of Education officials and records throughout the two years. This report updates the findings presented in the First Annual Report, dated October 1984, and presents new findings from the second year's work.

BACKGROUND

Compulsory free elementary education was proclaimed in the Egyptian constitution, Article 19, in 1923. However, lack of facilities and financial support prevented the early provision of broad educational opportunities for the population in general. It was not until the Revolution of 1952 under Gamal Abdul Nasser that a serious attempt to provide a broad-based education system began. The five-year plan for 1955-60 included within its provisions the goal of promoting universal primary education within a ten-year period. And indeed, in the period between 1956 and 1966, a number of impressive advances in education took place.

In Law #213 of 1956, education from grades one through six was declared compulsory and subsequently a number of measures were taken to encourage voluntary compliance with the provision; in 1962, the system was declared tuition free; and between 1956 and 1966 school facilities were built across Egypt to provide for the rapidly expanding enrollments. However, in the 1970s the system struggled to keep up with the popular demand for education.

Between 1967 and 1977, a decade of military spending and economic depression halted the construction of school facilities, resulting in severe overcrowding and general decline in the quality of Egyptian education. By the end of the 1970s, 60 percent of elementary schools and 30 percent of preparatory schools had a two-shift school day.

Despite adverse conditions in the decade of the 1970s, enrollments in primary and preparatory levels increased overall, 13 and 69 percent, respectively. In 1976, 43.5 percent of all Egyptians had experienced some schooling (including 29 percent of women). By the school year 1978-79, 68.2 percent of relevant age primary school and 59 percent of preparatory school children were enrolled. Of these enrolled children, females comprised 40 percent.

Despite general important advances in the educational system, access to education is still not equally available to all Egyptian children. Major disparities are still found between males and females, urban and rural, and Upper and Lower Egyptians. In 1977-78, from among six- to twelve-year-olds, 90 percent were enrolled in urban areas and 62 percent in rural. Of these, 94 percent of males enrolled in urban areas and only 75 percent in rural areas; girls enrolled 86 percent of the time in urban and 46 percent in rural areas. Girls' ratios of total enrollments have remained a fairly static 35 to 40 percent between 1965 and 1979. However, the absolute numbers of females out of schools has been increasing as a result of an ever-expanding population base.

Education plays a significant role in Egyptian life. It affects social mobility, the level and distribution of income, and the quality and quantity of the work force. Education contributes to a well-informed citizenry and to the realization of the full potential and self-esteem of individuals. Because of the important consequences to the nation and to its citizens, the MOE laid plans in the early 1980s to overcome the deficiencies hindering the expansion of school enrollment and attainment, especially among less-advantaged populations of the country.

In 1981, compulsory education was extended from six to nine years, under a Basic Education curriculum that was to increase the efficiency and skill level of students in both academic and practical course areas. With the cooperation of USAID, the MOE also embarked on an ambitious program to increase the number of institutional facilities available to school children, under the assumption that lack of facilities was a main hinderance to educational participation.

NEW SCHOOL CONSTRUCTION

The 1950s and early 1960s saw an extraordinary volume of school construction as Egypt set about accomplishing the goal of universal free education. This activity was interrupted by the large share of the Egyptian budget allocated to national defense in the late 1960s and early 1970s. In

the late 1970s, attention returned to school building, which by that time had fallen seriously behind population growth. On September 20, 1982, Minister Helmy announced that the five-year plan to meet the new needs of an expanded student body envisioned the construction of almost 2,000 primary and preparatory schools with annual allocations increased for education to LE 102 million from a then-current rate of 71 million. Although it was an unusual step for USAID, which ordinarily does not provide funding for "bricks and mortar," an agreement was reached between USAID and MCE for an extensive new school-building program aimed specifically at reaching educationally disadvantaged rural populations.

To make most effective use of limited resources, MOE chose to begin building schools in governorates where rural enrollments and enrollments of girls were particularly low, identifying in the first phase of the project the governorates of Kafr el Sheikh, Beniha, Assiut, Sohag, and Qena. Specific sites within the governorates were chosen after the MOE prepared up-to-date school maps that identified the areas most lacking in facilities. A basic criterion set a two-kilometer minimal distance between location of a new school and already existing facilities.

MOE officials worked with local citizens to obtain donations of land for the schools, and construction was financed by USAID in such a way as to ensure rapid completion of the buildings. A standard school building design was used, the basic module being classrooms for grades one through six, expandable to grades one through nine, electricity, water facilities, and indoor toilets. This initial design resulted in an easily constructed, inexpensive, and utilitarian school. (New designs are the subject of one of the technical assistance studies.) School construction in the first five governorates has now been followed by construction in five additional governorates where work already had previously been completed on up-to-date school maps.

In discussions surrounding the choice of new school locations for this ambitious project, many questions arose about the factors that facilitate or stand in the way of children's attendance in school--social factors, distance, economics, and so forth. These concerns, along with a need to assess the direct impact of the new schools on enrollment and literacy, form the background for the Intensive Study of New-School Communities and the Extensive Study of the Impact of New Schools.

NEW EQUIPMENT SUPPLY

By the late 1970s, the primary and preparatory schools in Egypt lacked not only appropriate facilities, but also instructional equipment in the classrooms. With the advent of the Basic Education program, it became imperative to provide equipment for teaching the practical courses in the primary and preparatory schools. Also, it was necessary to upgrade equipment in the science classrooms, because much of the equipment was worn-out or obsolete and many schools had none.

As part of the general agreement between USAID and the Government of Egypt to support the Basic Education program, the commodities import program was used to supply the requisite equipment. The Ministry assembled meetings of supervisors in the practical courses, science, and social studies, and charged them with drawing up lists of equipment needs. After the lists were determined, a system was devised for tendering, purchasing, receiving, storing, and distributing the equipment to the schools.

New equipment may require new school practices/procedures for storage, maintenance, and replacement; procedures for acquiring raw materials; training of teachers and administrators; and new kinds of classroom organization. These considerations form the background for the Study of New Equipment.

TECHNICAL ASSISTANCE STUDY

Once the school construction and commodities programs were established and operating well, USAID and Ministry officials turned their attention to the matter of how to provide the Ministry with appropriate expertise in technical areas such as curriculum development or teacher education, on an on-call basis over a period of time long enough to ensure adequacy of input.

Consequently, a decision was made to set up a three-year, host-country, time-and-effort contract through the Ministry of Education for the provision of technical assistance in support of the Basic Education Program. It was felt that such a contract would provide the Ministry of Education with the flexibility to call on expertise as needed and to adjust work efforts easily to fit new needs that might arise. This is the background for the Study of Technical Assistance.

CHAPTER I: THE INTENSIVE STUDY OF NEW-SCHOOL COMMUNITIES

This Second Annual Report of the Intensive Study of New-School Communities continues the evaluation of the impact of USAID-funded school construction. As with the First Annual Report, the study seeks to assess whether provision of school facilities meets the goals USAID and the MOE intended for them. These goals are:

- that the new schools increase enrollment rates and hold children in school longer;
- that the new schools reach the intended target groups of disadvantaged children--rural, poor, and underenrolled female populations.

These goals continue to be assessed in the context of the variables that independently affect the rates of educational participation. The study also seeks to provide basic data upon which planners can make rational decisions about how to accomplish universal levels of educational participation as quickly and efficiently as possible.

The Second Annual Report contains sections that extend the work of the 1983 field study. Our goals for the 1984 data collection were:

- continuation of the study of relevant variables affecting educational participation as identified in the 1983 field trip;
- assessing the relevance of as yet unidentified family characteristics that may have a bearing on educational participation;
- exploring school-related factors that may affect parental decisions about school sending (study of these issues is preliminary to an intensive study of school characteristics affecting educational participation that will be carried out in 1985 and 1986);
- providing preliminary evidence on the impact of single-sex schools on girls' enrollments;
- completing the basic information file on six villages;
- developing the measures against which final impact can be assessed; and
- collecting enrollment information on comparison schools and "ideal" schools in markaz capitals to assess the preliminary impact of USAID schools already in place.

The Intensive Study is, as its name suggests, an in-depth study of the factors affecting educational participation in new-school sites in order to inform and assess the effects of USAID contributions.

DATA COLLECTION

The 1984 data collection returned to four sites surveyed in 1983: Monshat il Awkaf (Beheira), Ghaneyem (Assiut), Nag il Khutaba (Qena), and Nag Dahi (Qena). In addition, two new sites, Roda (Kafr il Sheikh) and Nag il Harif (Sohag), completed the sample from the last two of the five governorates that were included in the first-phase building program.

Data collection was carried out in November and December of 1984 in basically the same manner as the 1983 data collection with community leader initial or follow-up interviews as appropriate and a sample of approximately 40 household interviews in each village. In the old sites we returned, where possible, to the original households. Our goal this year was to complete the data collection in the last two intensive sites where USAID-funded schools were newly opened, to finalize the baseline data on four sites surveyed the previous year, to explore questions raised by the 1983 results, and to check on the reliability of 1983 data by re-asking some of the questions again.

Two schools, in Beni Rafa and Nag il Taref, that were near completion at the time of the 1983 baseline collection did not open as planned in 1984 and thus necessitated revision of the data collection schedule. In their place visits were made to Ghaneyem and Khutaba. The revised schedule of data collection appears in Table I-1.

Table I-1: Data Collection Schedule

Site and Year School Opened	Fall Collection 1983	Fall Collection 1984	Fall Collection 1985	Fall Collection 1986
Manshiya 1983	x		x	x
Kafr Nekla 1983	x		x	x
Monshat il Awkaf 1984	x	x		x
Khutaba 1983	x	x		x
Nag Dahi 1983	x	x		x
Nag il Taref 1985	x		x	x
Ghaneyem 1983	x	x		x
Beni Rafa 1985	x		x	x
Roda 1984		x	x	x
Nag il Harif 1984		x	x	x

This Second Annual Report will provide a summary of the statistics collected in the six villages in the 1984 field study. Next year's report will add the last four villages, and the final report will return to a discussion of the educational environments as represented in urban, rural, and mixed villages to show how these environments may have contributed to a differential rate of impact on enrollment and persistence in the new USAID schools. All the conclusions rely heavily on behavioral evidence for historical changes and trends and attitudinal data only for current opinions about present and future possibilities. Attitudes, however, are not here taken as necessarily predictive of behavior without further supporting evidence that there is a connection.

SUMMARY OF THE 1984 FINDINGS

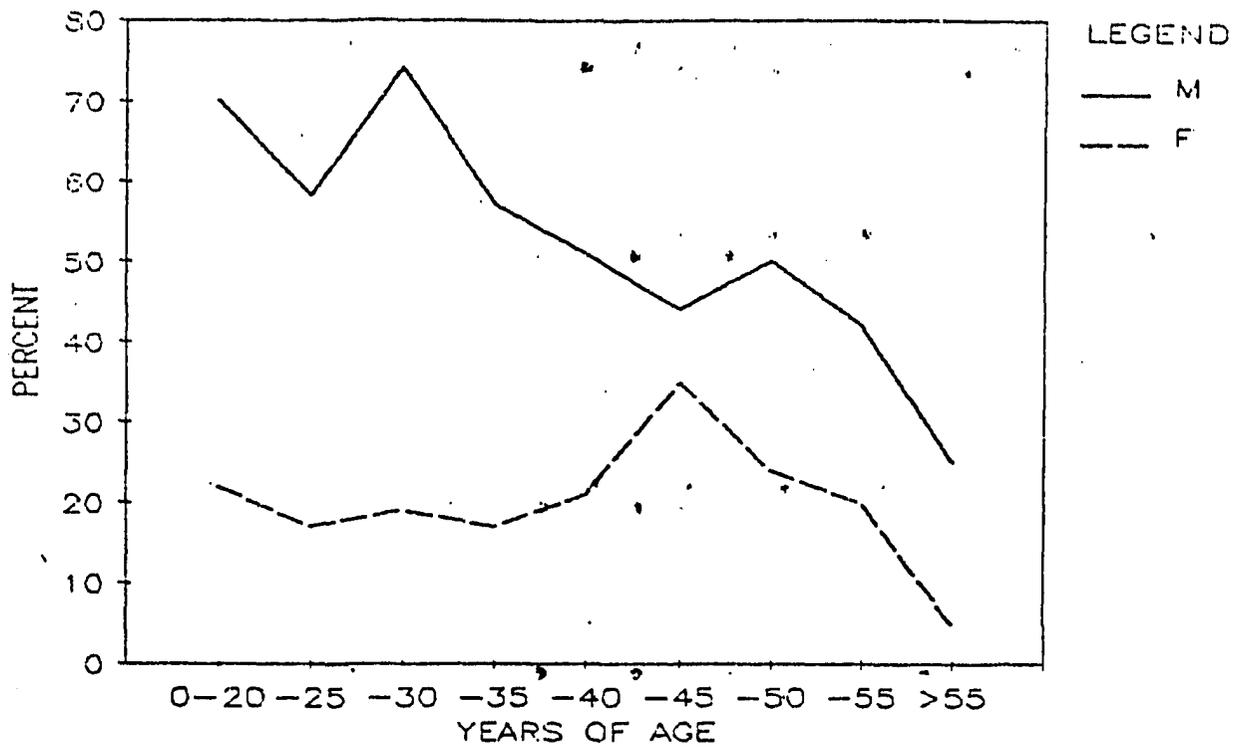
This Report summarizes the completed data file on six of the ten villages of the Community Intensive Study. The major findings are as follows.

Educational Participation

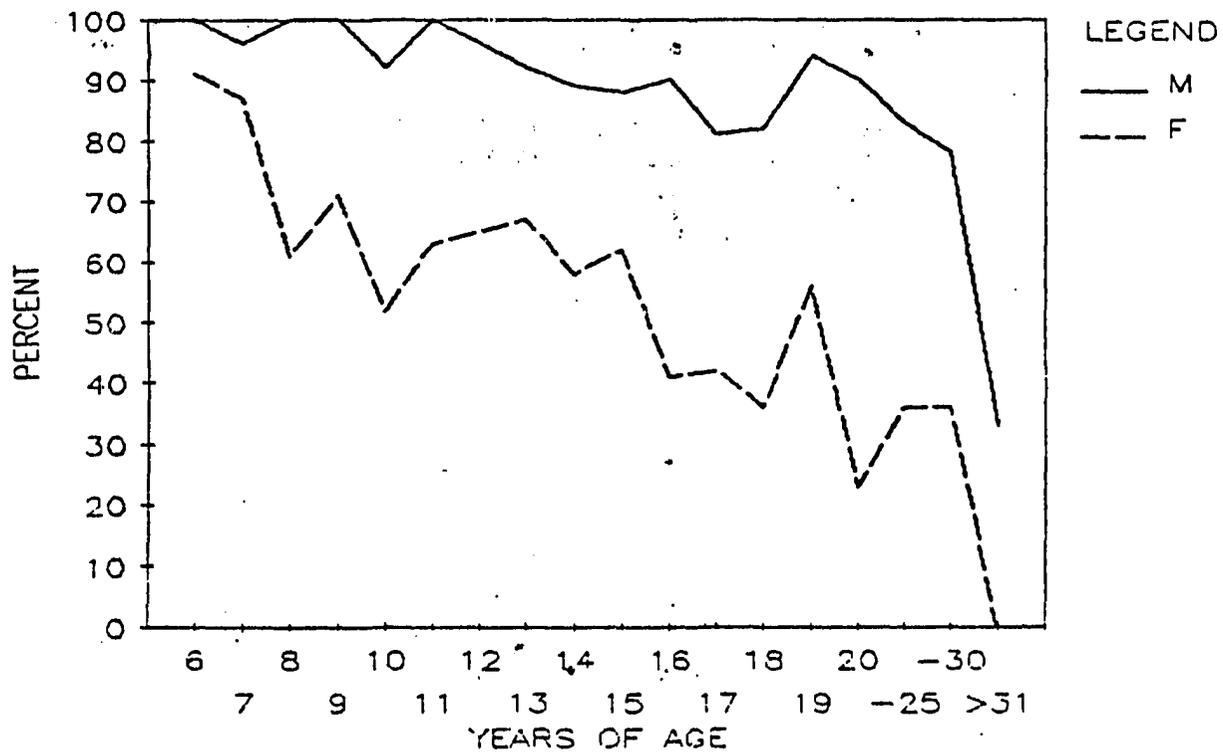
Educational Attainment (see Figures I-2 and I-3). In the older generation (parents and grandparents of current school-age children), 52 percent of the males and 19 percent of the females were once enrolled in school for some period of time. In the younger generation, 90 percent of the males and 56 percent of the females over the age of six have now enrolled. From these data it is apparent that educational participation was well established before the advent of the new schools.

Enrollment in Grade One by Age Group. In the older generation the younger the male the more likely he was to have enrolled in school. A fairly consistent ratio of about 20 percent of older generation females of each age group enrolled throughout the 40-year period when it was appropriate for them to enter school. In the younger generation, since the early 1950s about 80 percent of the boys in each age group enrolled until recently when virtually all boys have enrolled. Girls' rates of age group enrollment have shown phenomenal increases. In the last two years, since new schools have opened in the villages, more than 90 percent of girls in the sample group have enrolled, an increase of 30 percent overall in two years in these six villages.

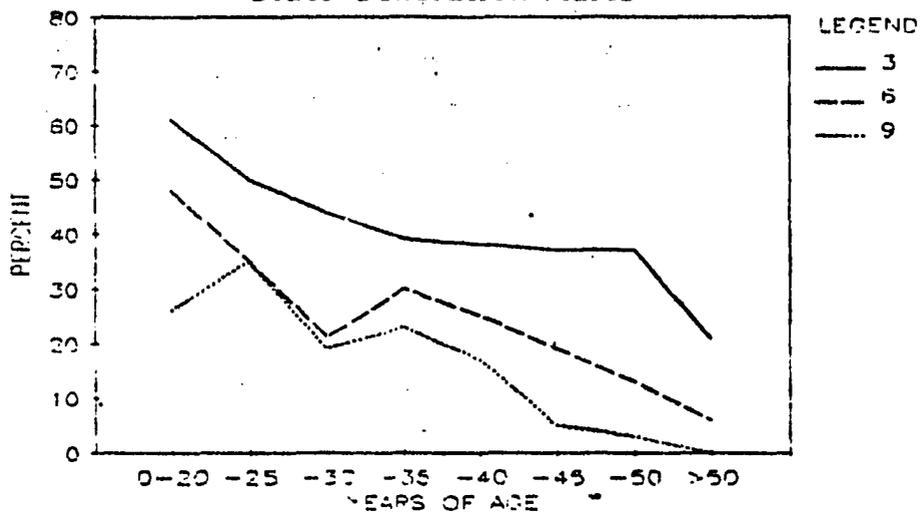
**Figure I-2:
Ratio of Age Groups Enrolled--Older Generation**



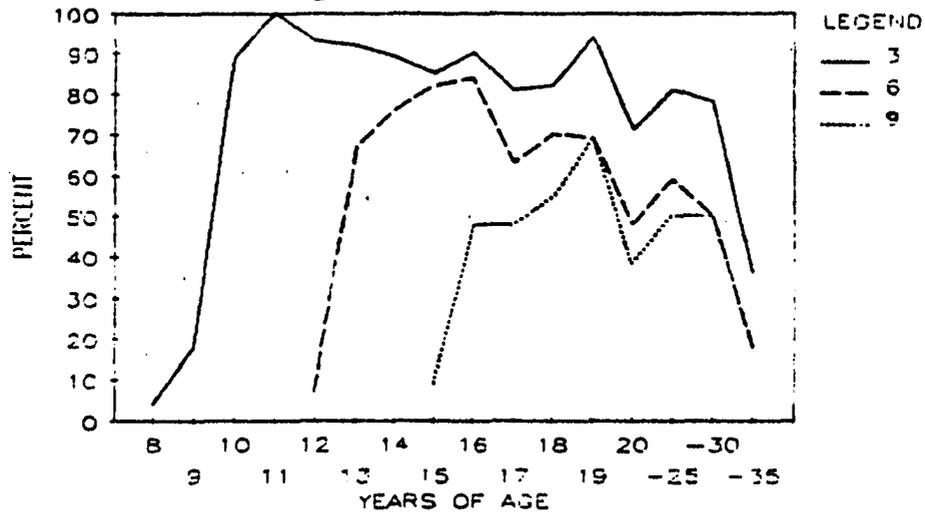
**Figure I-3:
Ratio of Age Groups Enrolled--Younger Generation**



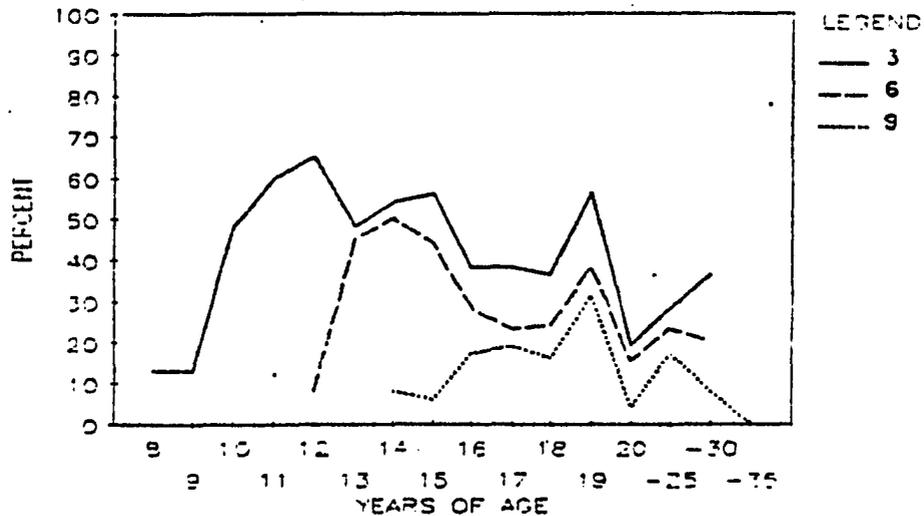
**Figure I-4: Ratio of Age Groups
Completing Grades Three, Six, and Nine--
Older Generation Males**



**Figure I-5: Ratio of Age Groups
Completing Grades Three, Six, and Nine--
Younger Generation Males**



**Figure I-6: Ratio of Age Groups
Completing Grades Three, Six, and Nine--
Younger Generation Females**

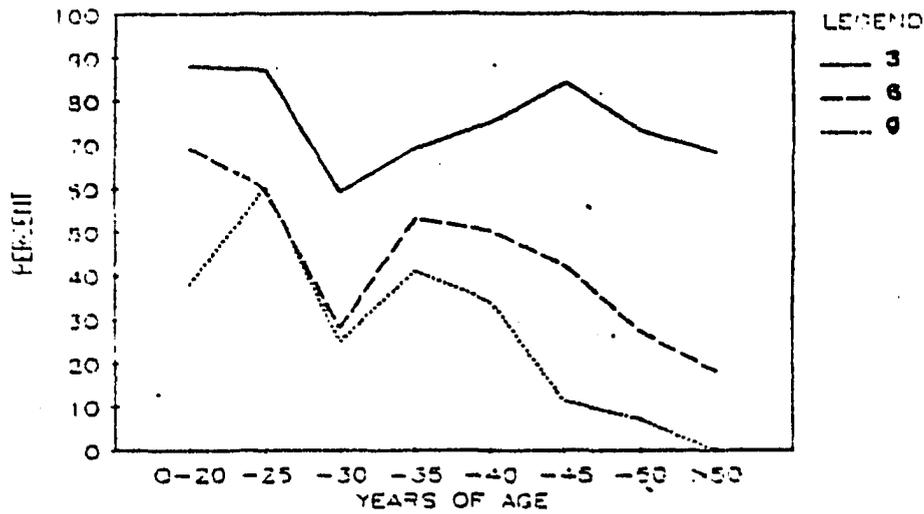


Persistence in School by Age Groups (see Figures I-4, I-5, and I-6; I-7, I-8, and I-9). Of older generation males, 38 percent completed grade three, 22 percent grade six, and 14 percent grade nine. Of younger generation men in the appropriate ages, the ratios were 78, 59, and 44, respectively. If we consider only the number of enrolling younger generation males who completed these levels, the ratios jump even higher to 87 percent completing grade three, 68 percent completing grade six, and 53 percent completing grade nine. The ratio of females of the younger generation in the appropriate age groups completing these grade levels were 41, 28, and 13 percent, respectively. Considering enrolled females only, the ratios were 79, 59 and 31, respectively. Once children enroll in school, therefore, high percentages finish grade three, and more than half finish grade six. Overall, as grade level rises enrolled girls are less likely than boys to persist to higher levels.

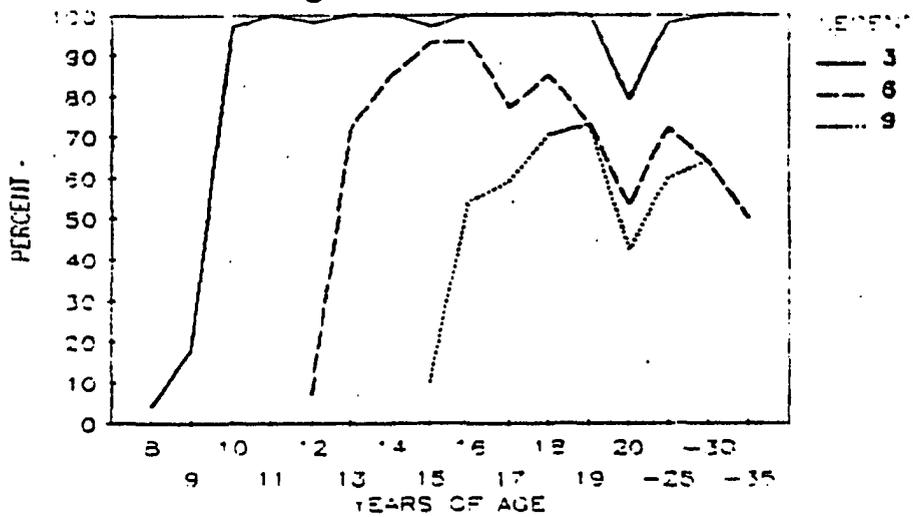
Dropout Rates. There is little difference between the rates of male (16 percent of enrolled) and female (19 percent of enrolled) dropout in the younger generation. There were no dropouts reported for the six- to eight-year-old age group of children and only three percent for ages nine to eleven. Thereafter, in the higher age groups, the numbers of dropouts increase. Since nine- to eleven-year-olds have usually completed from four to six years of schooling, enrolled children should in most cases have attained a functional level of literacy if the educational program is adequate. Dropout rates tend to be highest in sample villages where the occupational structure does not demand high levels of education. The dropout and persistence data suggest that children remain in school long enough for them to become reasonably literate once the obstacle of initial enrollment is overcome.

Reasons for Dropping Out or Not Enrolling. Older generation members reportedly did not enroll in school mainly because there were no schools available. In the younger generation, more important reasons were the high cost of schooling and the absence of someone to accompany the child to school. In the older generation, males dropped out before grade nine mainly for economic reasons and girls for normative reasons. In the younger generation, males primarily dropped out because they failed exams and girls because the family needed their work in the household. Increasingly, school-related factors appear to have an effect on children's persistence in school. Parents now are reluctant to cite normative reasons for keeping girls at home. They are more likely to recognize the economic benefits that derive from education for boys and see girls' education as an economic drain in lost labor or school costs if they are economically constrained to keep some children home.

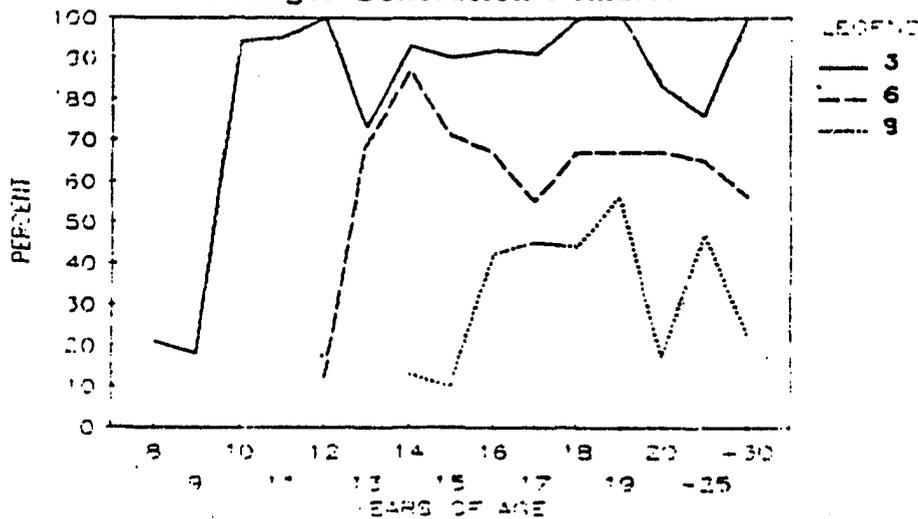
**Figure I-7: Enrolled Age Groups
Completing Grades Three, Six, and Nine--
Older Generation Males**



**Figure I-8: Enrolled Age Groups
Completing Grades Three, Six, and Nine--
Younger Generation Males**



**Figure I-9: Enrolled Age Groups
Completing Grades Three, Six, and Nine--
Younger Generation Females**



Parent-Identified Variables and Educational Participation

The major variables identified by parents as affecting educational participation fell into three categories: economic, accessibility, and normative factors. In addition, parents of younger generation children who enrolled reported problems related to the school such as failed exams and children refusing to continue in school. Below, economic and accessibility (distance) impacts are summarized. Normative factors appear in all sections in sex-disaggregated data.

Economic Effects on Educational Participation (see Figures I-10, I-11, and I-12). Enrollment increases sharply and consistently with rises in household economic level for all children in both generations but especially for girls of the younger generation. Boys' rates of dropout decrease and girls' rates of dropout increase as household economic level rises. Overall there is an increase in those completing grade nine as income level rises, but the trend is not consistent. School costs are a significant factor in school-sending decisions for some families. Few families spend less than 40 LE per child per annum for primary-school children and the majority reported spending 100 LE or more for preparatory-level children.

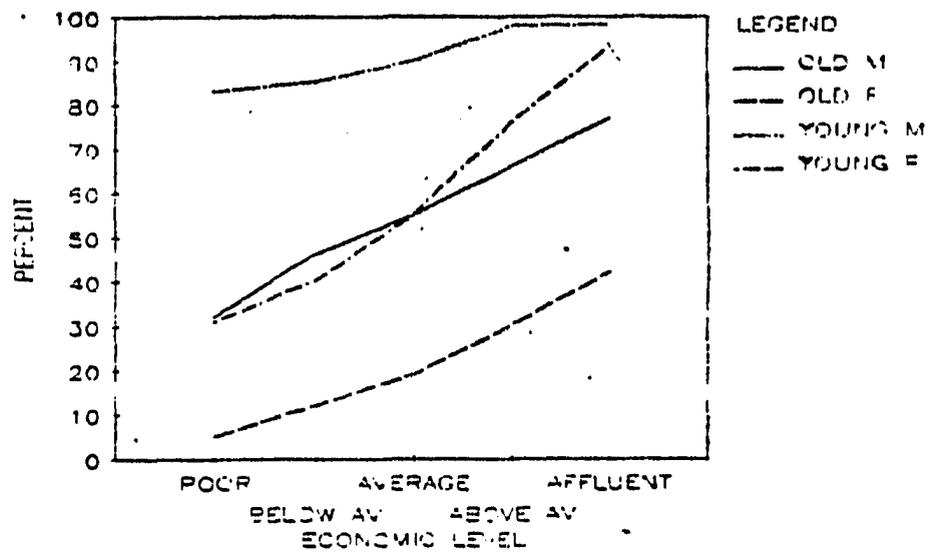
Distance Effects on Educational Participation (see Figures I-13 and I-14). The threshold distance at which impact on enrollment becomes significant is between one and two kilometers. Children who live at one kilometer enroll at three times the rate of children who live two kilometers from school, and about five times as many go to school as stay home. At two kilometers, equal numbers go to school as stay home. Disaggregated, girls' figures show that already at one kilometer, ten percent fewer girls go to school than at one-half kilometer. By two kilometers, the ratio drops again by half. If schools were available within one-half kilometer of the homes of all village children in the sample, and trends persisted, boys' enrollments would increase by 7 percent and girls' enrollments by 26 percent.

As distance of the school from the home increases, boys' rates of dropout increase precipitously up to three kilometers, then decrease slightly. Girls' rates of dropout increase only slightly with distance. In contrast to the strong relationship to enrollment, there is not a strong and consistent relationship between sample members' dropout and the distance to school.

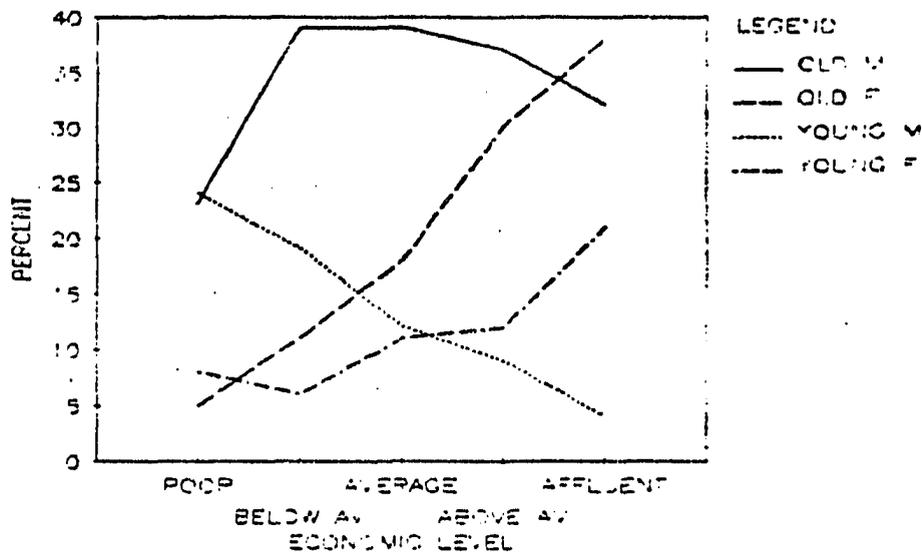
Parental Choices

In the context of family requirements, parents make choices about sending their children to school. Below are summarized data on patterns that emerge from educational profiles of families. Parents are not necessarily aware of these patterns.

**Figure I-10: Economic Level and Enrollment--
Older and Younger Generations**



**Figure I-11: Economic Level and Dropout--
Older and Younger Generations**



**Figure I-12: Economic Level and
Completion of Grade Nine--
Older and Younger Generations**

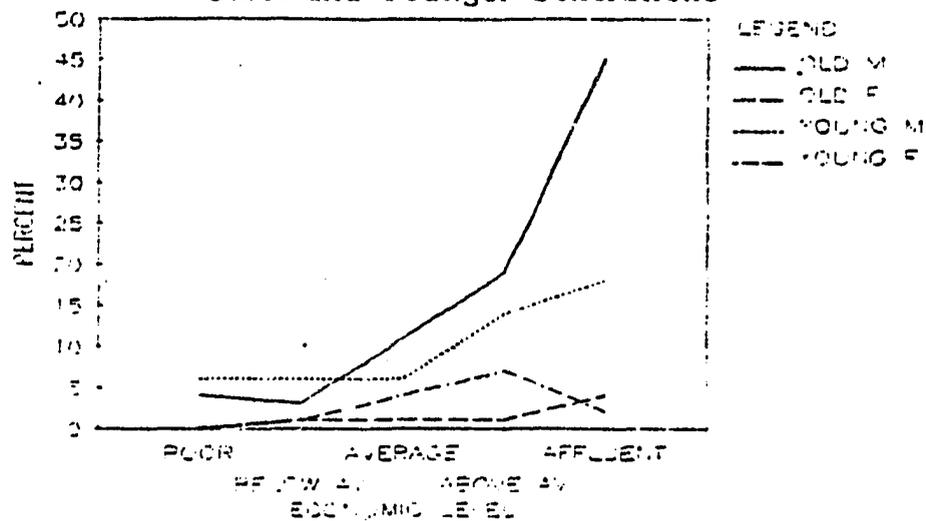


Figure I-13: Distance and Enrollment--
Younger Generation

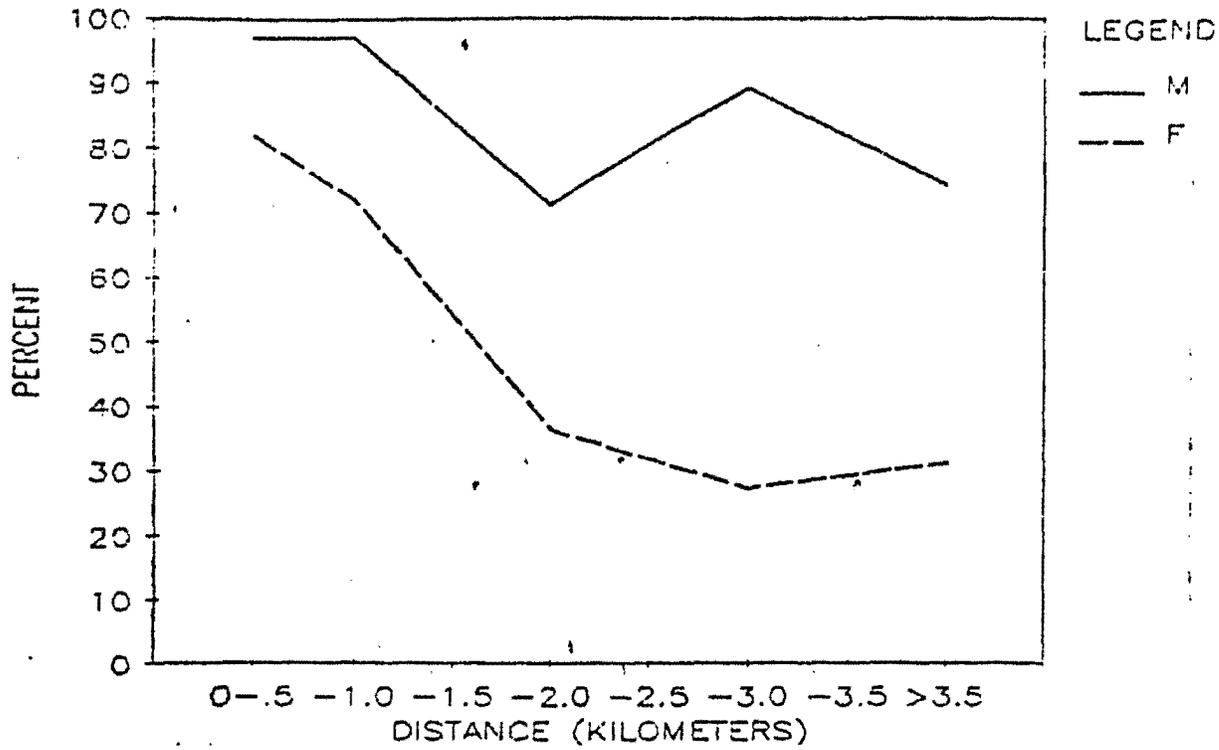
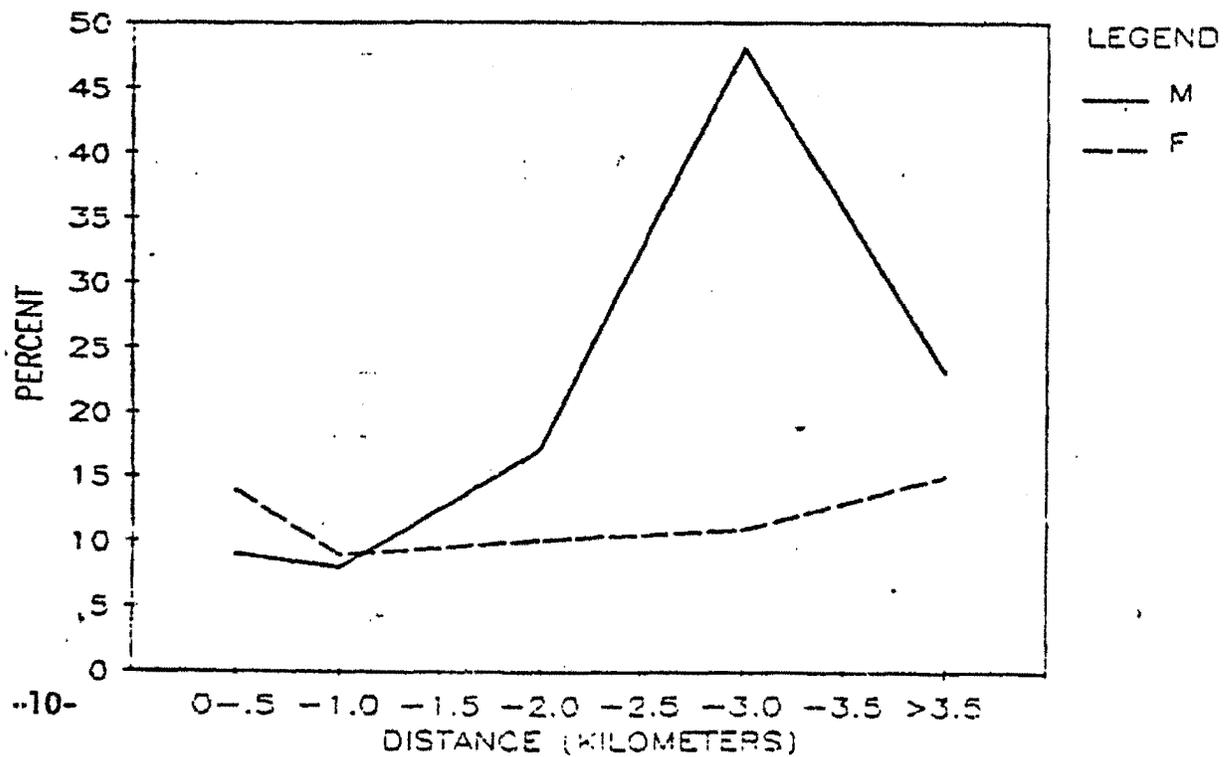


Figure I-14: Distance and Dropout--
Younger Generation



Age and Birth Order Effects. Parents most often make firm decisions to enroll or not enroll all their children, or to enroll all of one sex and not the other, and they remain consistent to that decision. When they suddenly change their previous pattern it is to enroll much younger children in the last decade, to enroll older children of a household and not younger children, to enroll younger boys or girls when older children of the same or opposite sex are not enrolled. These changes, in some cases seemingly contradictory, may be responses to different priorities: the decision to support one or two promising students in an economically constrained household, a feeling that community norms are changing, to assure that one child stay home and be available to help parents in their old age, or because of a feeling that education has a different relevance for boys and girls.

Parental Choices (by Sex and Economic Level). Most families (95 percent) enroll all their boys and a majority (60 percent) enroll all their girls. Only a few (6 percent) send no eligible-age boys while quite a few (27 percent) still send no eligible-age girls. The economic level of the household affects the educational participation by family in the same way that it affects family members as individuals: by increasing the chance that all boys and all girls will be enrolled as the economic level rises, and conversely by decreasing the chance that no child of either sex will enroll.

School Related Impacts

Age of School Entry. Approximately 90 percent of sample children enter grade one at six years of age. Even in crowded systems, therefore, it appears that most children are accommodated at the appropriate age.

Type of School. Most children enroll in government schools even when other private or religious system schools are available. Those who never enrolled in school reported that government schools had been available when it was time for them to enroll. Whether a child enrolls or does not enroll therefore appears to be unrelated to the type of school available.

Absences. Approximately 90 percent of all children are reported as never being absent from school. Though these reports are undoubtedly underestimated, the reasons for absences suggest why children do not attend regularly. The major reason was illness and a minor reason distance from school. After the opening of the new schools weather was no longer cited as an important reason and absent rates were lower than before the opening.

Retention Rates. Girls and boys both were retained at a parent-reported rate of six percent of enrolled children. Boys are most likely to repeat grades seven and eight and girls four and six (see Figure I-15).

Dropout. Girls' dropout rates are slightly higher than those of boys. The largest group of each sex drops out after completing grade five and before completing grade six (see Figure I-16).

Figure I-15: Student Retention by Grade--
Younger Generation

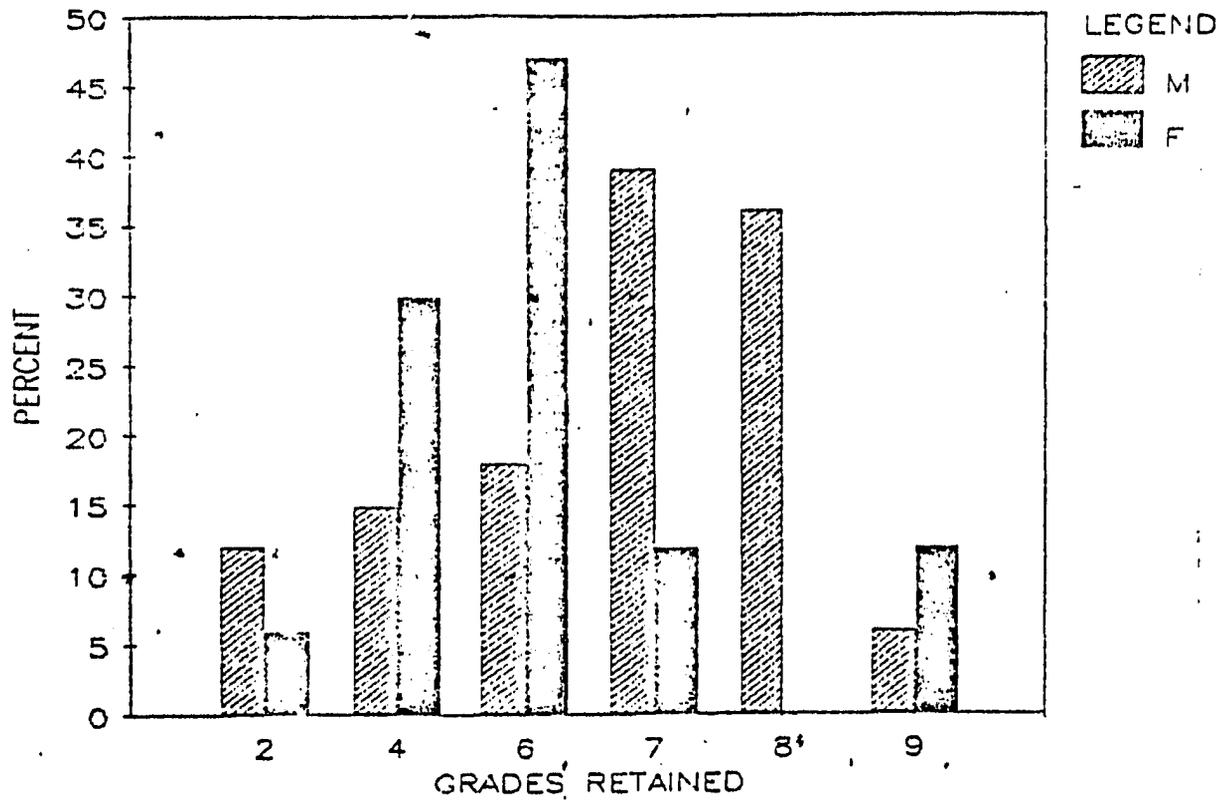
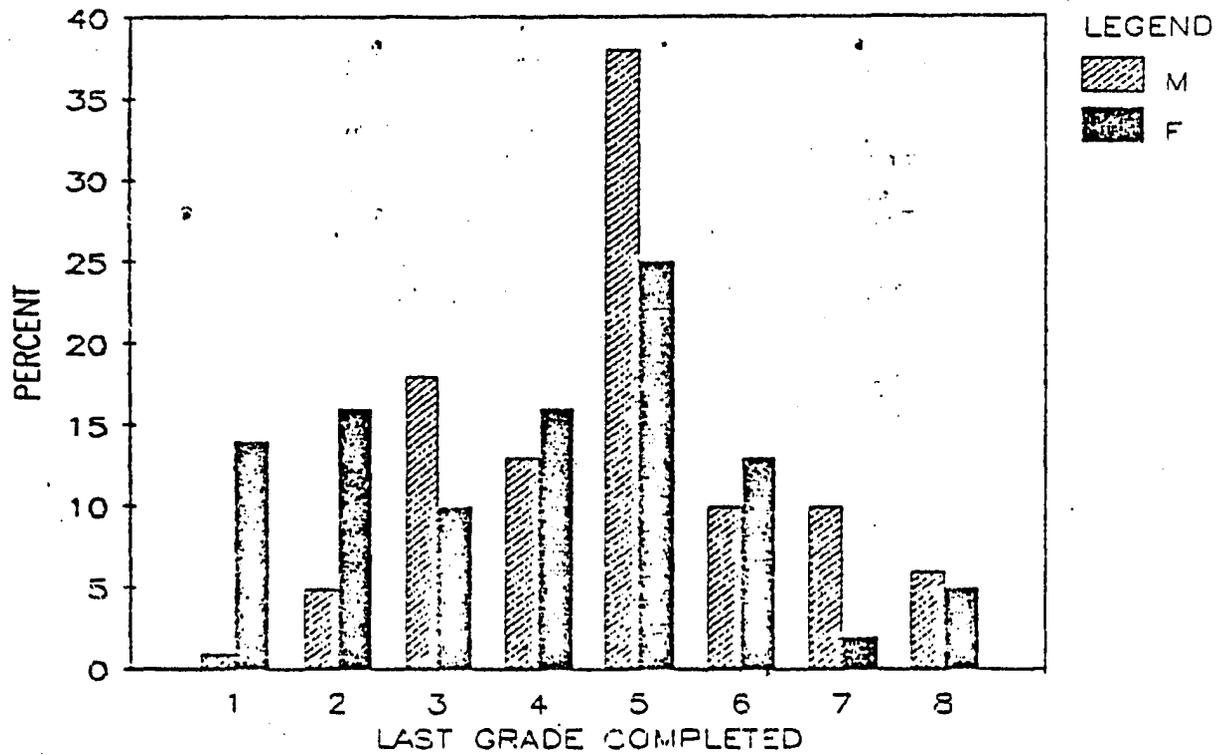
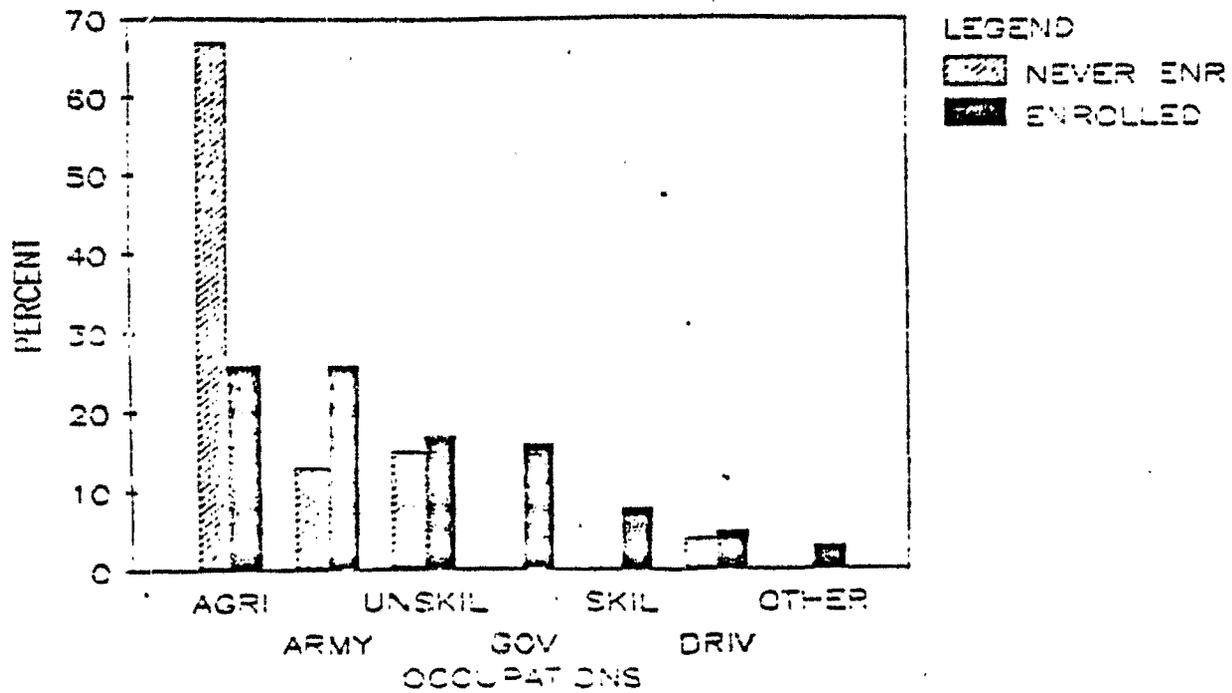


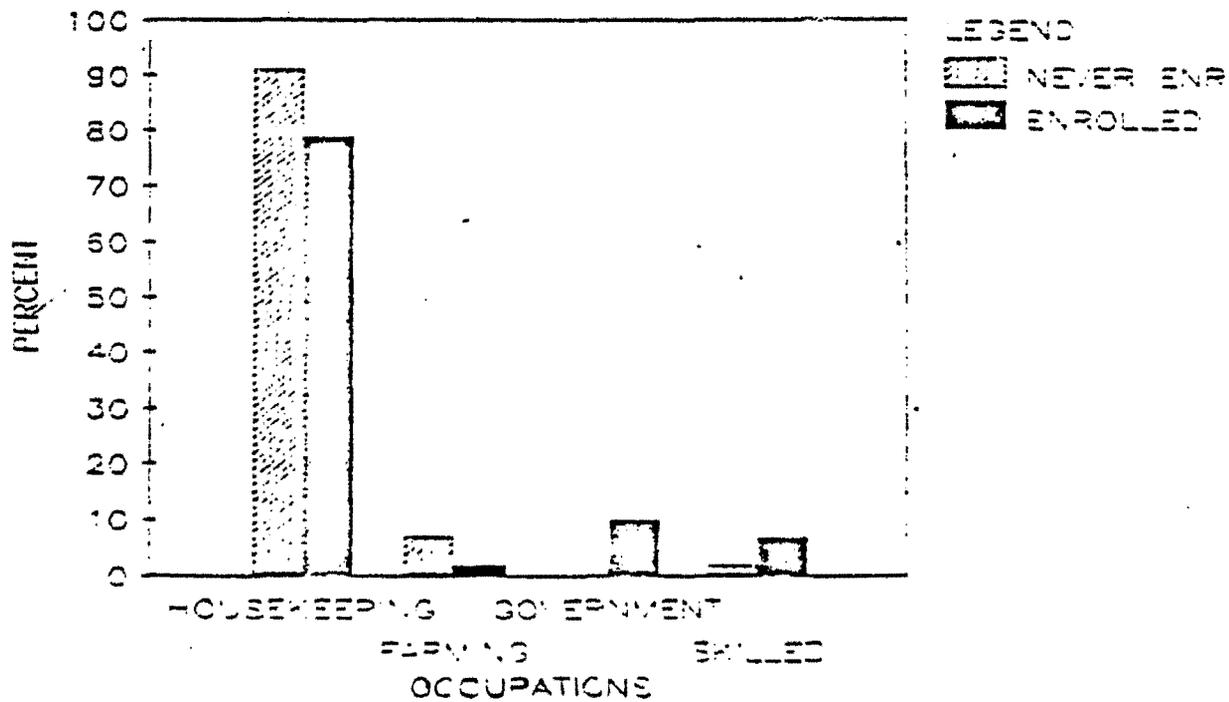
Figure I-16: Dropout by Last Completed Grade--
Younger Generation



**Figure I-17: Occupational Structure
by Educational Status--Younger Generation Males**



**Figure I-18: Occupational Structure
by Educational Status--Younger Generation Females**



Parents' Attitudes and Motivations

Parents' Attitudes. Parents' expressed attitudes in many respects differed greatly from their actual behavior. Over 95 percent said they expected both their sons and daughters to complete grade nine. Close to 90 percent said they felt the rest of their community members would educate boys and girls to grade nine. Almost all said more girls would go to school if there were single-sex primary schools but most were already sending their girls to mixed schools. Most parents also said that they would prefer all-girls preparatory schools but would send their daughters to a mixed school nearby. Most said they would have educated their never enrolled children of both sexes if "circumstances" had been different. The majority feel that food programs do not affect whether children go to school or not.

Villager Models. Most villagers (85 percent) personally do not know a woman with a high degree, but do know a man with such a degree (65 percent). Almost 50 percent claimed they wanted their daughters to follow professional careers in medicine or engineering and 70 percent wanted their sons to follow these careers, even though realistically few would ever be able to attain such goals. Parents believe education is beneficial to both boys and girls "to secure their futures," for boys mainly in preparing them for occupations and for girls in preparing them for marriage (see Figures I-17 and I-18).

Occupational Context of School-Sending Decisions. Educated males of the younger generation engage in a broader range of work type than uneducated males. Educated males are also less involved in farming and exclusively engaged in government and skilled work in comparison to their uneducated contemporaries. Uneducated and educated females both are mainly involved in housekeeping, with a small percent of educated females (10 percent) now employed in teaching or clerical work with the government. While educated males increasingly seek work outside the home village (40 percent compared to 20 percent in the older generation), the vast majority of women (96 percent) who work do so in the home village while the remainder commute to nearby towns. One-third of the families reported male members who had migrated within or outside of Egypt to work. Lack of educated models working in fields requiring educational skills, in addition to the norm that keeps women close to home, serve as disincentives to village women to spend extended time in educational programs when the chance to use their skills in later life is limited.

Girls' Educational Participation

Data from the community study show that a good proportion of girls in the younger generation have not enrolled, but that once enrolled a high percentage completes grade three, more than half grade six, and only a third grade nine. Girls' dropout rates are similar to males' overall but tend to increase more rapidly with age. Grade five is a particularly vulnerable point. These figures suggest a programmatic emphasis on initial enrollment campaigns and encouraging girls to persist at least through grade six. Solutions that have been generally proposed to encourage greater girls' participation are, first,

girls-only schools to solve normative problems and, second, expansion of primary schools to include the three grades of the preparatory level to reduce distance constraints. Case histories reported in the text provide preliminary evidence that all-girls schools may not have a significant effect on increasing initial enrollments at primary or (given the present limited pool of qualified applicants) preparatory-level schools but may have impact on persistence at the higher grades of both these levels. The process of extending schools to nine grades is yet incomplete in the new schools and therefore it is too early to estimate an impact.

The Context of Impact

Data from new schools in their first years of opening were compared with data from markaz city schools and nearby schools operating within a similar socioeconomic environment as the new school. The first serve as indicators of the optimum existing enrollment level for the region as a whole and the second as a baseline for impact in the local area. Girls' ratios of total enrollments were taken as the measures of change since boys in the sample were almost all enrolling in the early years of school. Table I-24 shows how the villages rated by these indicators.

Table I-24: Summary Table for Girls' Ratios of Enrollments in Ten New-School Sites

S I T E	NEW SCHOOLS' RATIOS IN RELATION TO COMPARISON SCHOOLS		
	Grade One or Seven	Grade Six or Nine	Total Enrollment
Manshiya	higher	lower	higher
Kafr Nekla	lower	lower	lower
Monshat il Awkaf	same	higher	higher
Roda (Prep.)	higher	lower	lower
Nag il Khutaba	higher	lower	higher
Nag il Harif	higher	lower	lower
Nag il Taref	school not opened		
Nag Dahi	lower	higher	lower
Ghaneyem*			
new girls' prep	slightly lower	higher	same
new mixed prep	same	higher	slightly higher
Beni Rafa	school not opened		

Figures I-19, I-19a and I-19b show a typical "rural" village pattern in Manshiya, and Figures I-20, I-20a and I-20b an "urban" village pattern. Note that in the rural pattern girls' ratios of totals are much lower than the city school ratios while in the urban pattern they are very similar, signifying that in the latter groups girls' ratios has almost reached boys' ratios. Sites which have had few accessible educational opportunities will tend to have low levels of grade six enrollments for girls for some time until new enrollments bring higher grades up to normal levels.

Figure I-19: Comparison Schools:
Girls' Rates of Participation--Manshiya

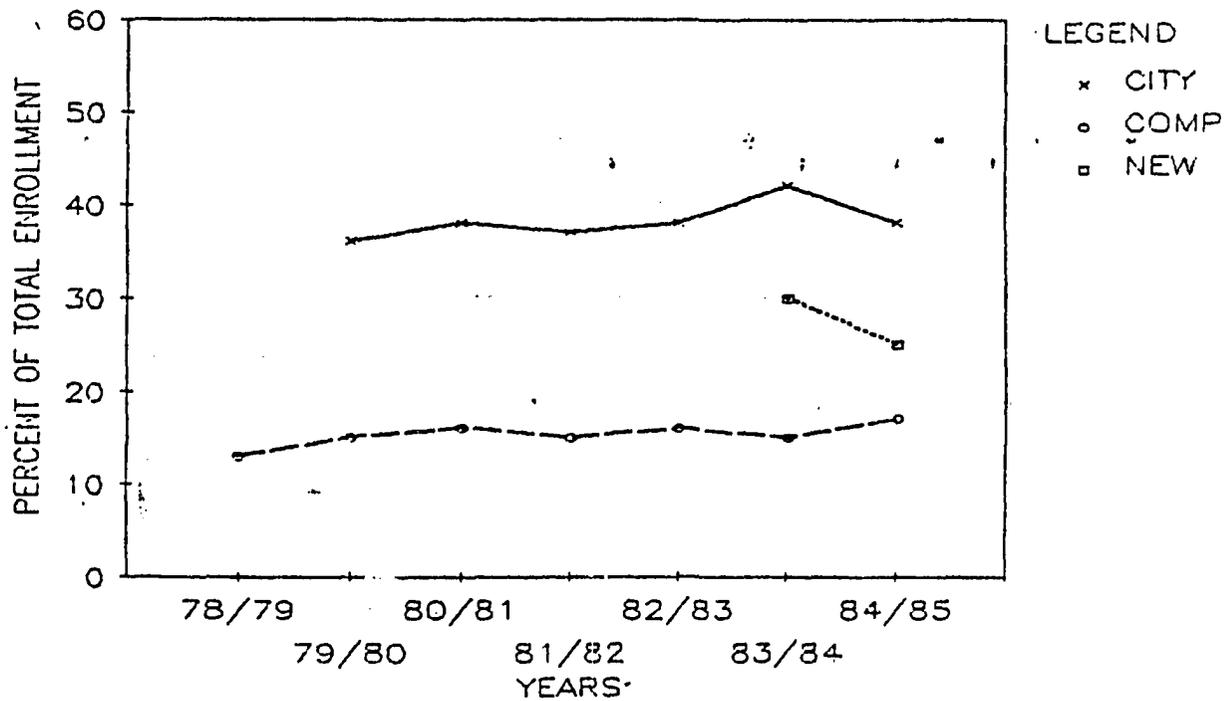
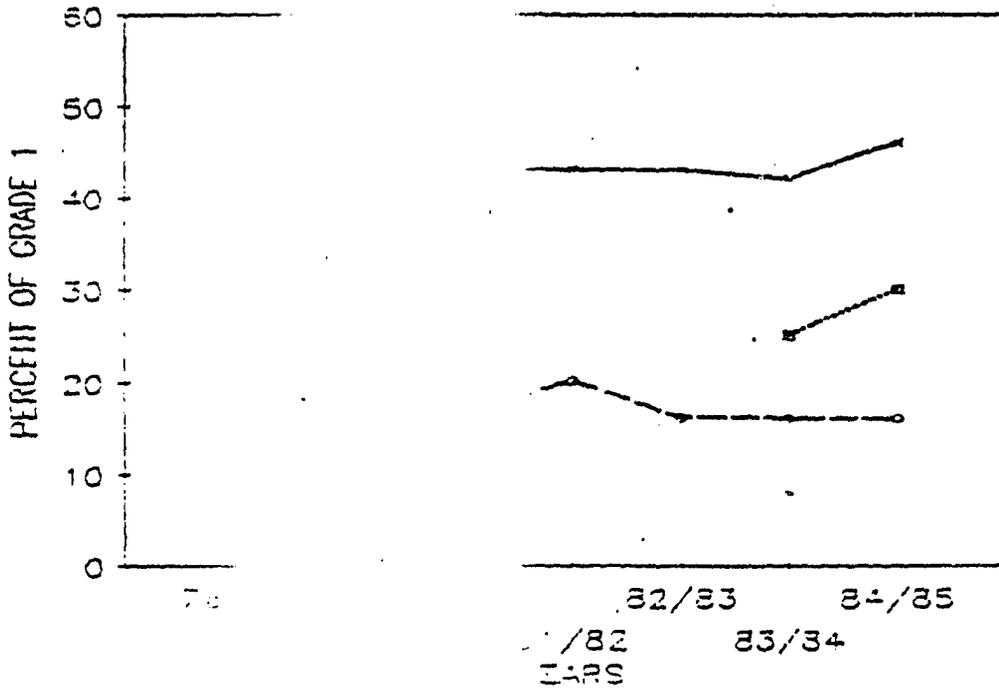
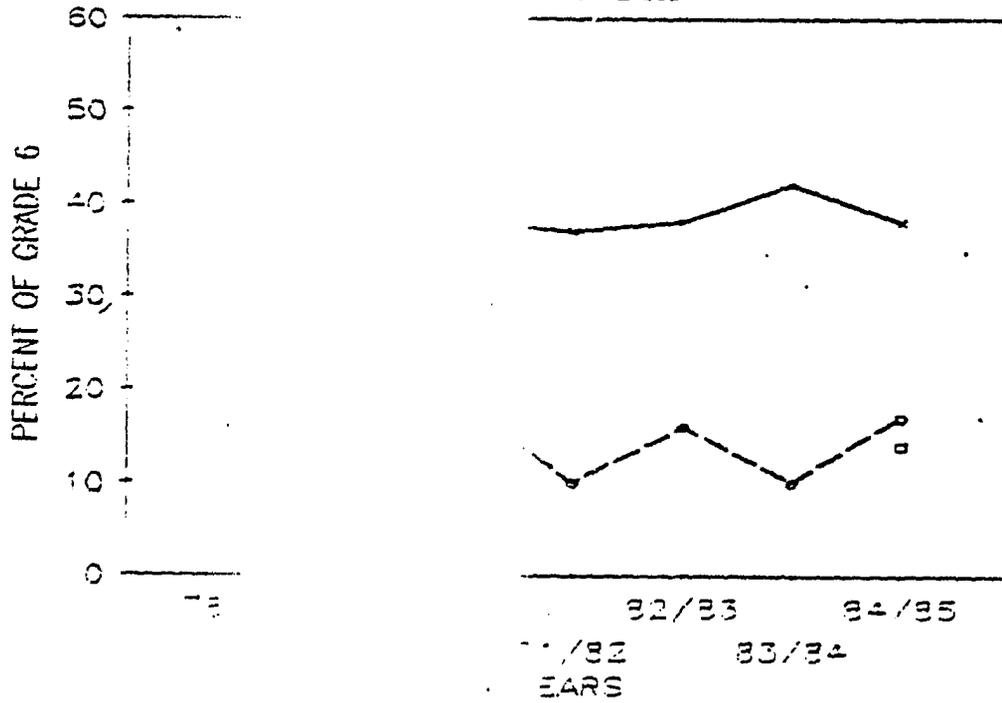


Figure I-19a
Grade One



LEGEND
 x CITY
 o COMP
 □ NEW

Figure I-19b
Grade Six



LEGEND
 x CITY
 o COMP
 □ NEW

Figure I-20: Comparison Schools:
Girls' Rates of Participation--Kafr Nekla

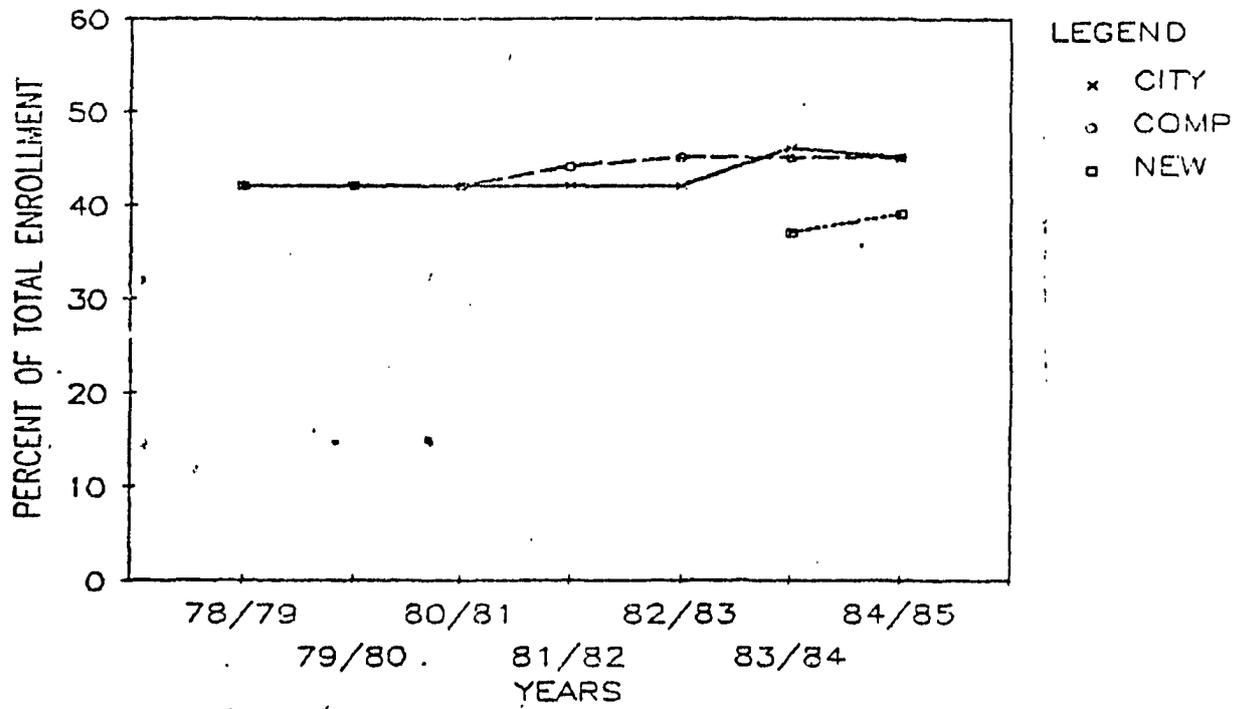


Figure I-20a
Grade One

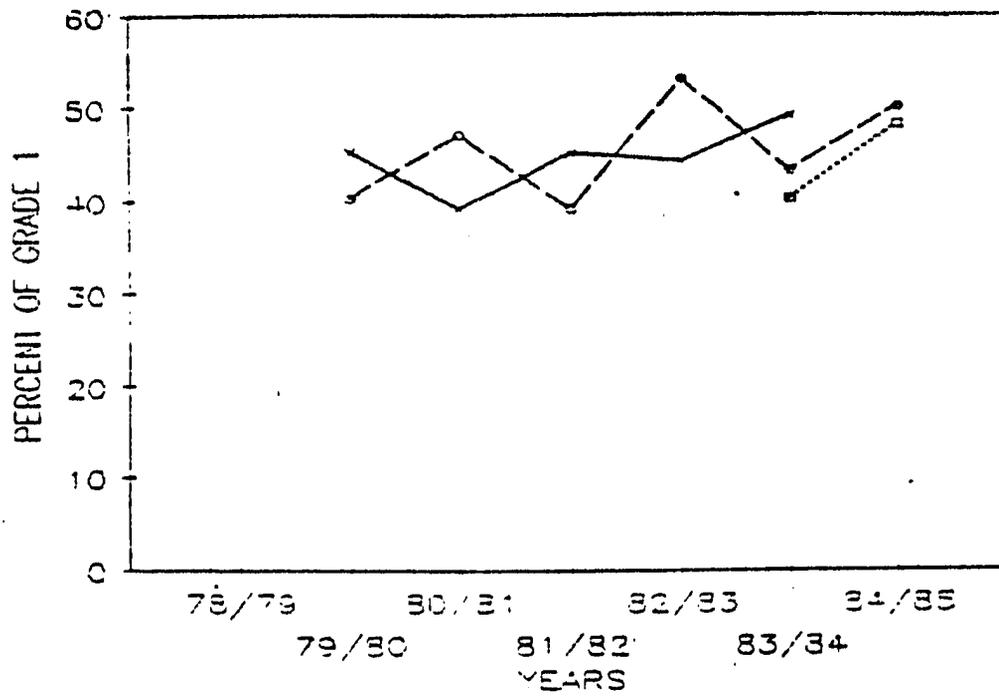
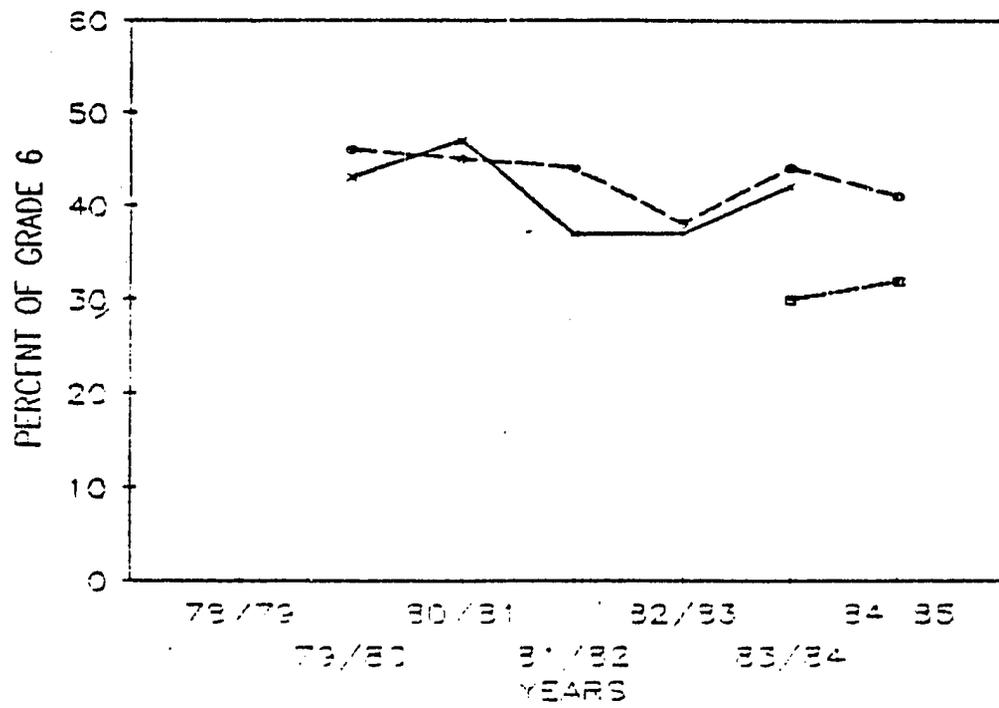


Figure I-20b
Grade Six



Absolute Impact. Three years previous to the new school openings in the four villages where primary schools were located, 89 percent of six-year-old boys and 49 percent of six-year-old girls enrolled in grade one. Since the new schools have been opened, 100 percent of the boys and 95 percent of the girls in the appropriate six-year-old age group have enrolled. In addition, 6 boys and 6 girls in older age groups enrolled. Overall the new schools added 21 out of 73 children (six years old) of which 17 were girls and 4 were boys, and possibly 12 additional older children who might not otherwise have gone to school.

RECOMMENDATIONS

1. Girls' Enrollments. Girls' initial enrollments in first grade should be considered the major priority of the education authorities since girls constitute the largest group of unenrolled children. Creating the conditions favorable to their enrollments--closer schools, less crowded classrooms, and official cajoling of parents to enter their children in school--are all measures that would encourage the participation of the remaining unenrolled children of both sexes.

2. Distance. Evidence suggests that the distance threshold before girls' enrollments start to drop may be as low as one-half kilometer. After one kilometer both boys' and girls' enrollments drop precipitously. In special cases where the size of the school population and the insufficiency of classroom space warrants school construction at closer intervals, such construction should be considered without adhering strictly to a two kilometer guideline since the benefits in terms of increased enrollment and persistence may be significant.

3. Single-Sex Schools. Limited evidence from this year's field trip leads us to suggest that authorities look carefully at instances where single-sex primary schools are requested as a way of increasing girls' enrollments. It is far easier to change to a segregated system than back to a mixed system. One result of single-sex systems is that boys' enrollments may increase as a result of the large number of places that open up when girls move out of a mixed school. At the same time, a new school that opens for girls only and is planned for specified numbers of girls may make difficult the expansion of places for girls in subsequent years. The authorities' willingness to expand girls' facilities in the future needs to be considered when schools are segregated. Also important is the question of whether the educational program provided girls in a segregated system is equivalent to that provided boys.

4. Preparatory Level. It seems apparent that in the next decade there will be enormous pressure on preparatory-level facilities. We recommend that concentrated effort be exerted toward expanding facilities at this level. We are encouraged by the flexibility with which this problem is being addressed at present by the MOE through construction programs to provide more seven-to-nine schools and through the expansion of one-to-six schools to provide all nine grades. However, we suggest that some study be made of the educational programs in seven-to-nine and one-to-nine schools to ensure that they are not significantly different. Care should be taken that children in

one-to-nine schools do not receive an inferior education because of lack of appropriate facilities or trained staff. In the last resort, however, if distance becomes an essential factor, it is better for a child to attend an inferior program than no program at all. At the preparatory level, there is some evidence that segregated schools are more attractive to girls than mixed schools. Where the single-sex school is much farther away from the girls' homes, however, a mixed school may be considered a more satisfactory substitute. In both cases of single-sex primary and preparatory school there seems, in our limited examples, to be modestly greater persistence of girls to the higher grades of these levels than there may be in mixed schools. Thus the issue of single-sex schools is a complicated one that does not provide an automatic solution to the question of how to increase girls' enrollments and persistence. There is enough negative evidence to suggest that where resources are limited, mixed schools are a satisfactory alternative.

5. Models and Administrators. Parents' responses and our observations of school activities lead us to believe that, in general, local teachers and administrators drawn from the community are more conscientious and responsive to the needs of local communities. Female teachers from the community provide an incomparable model and encouragement to local girls to enroll and continue at length in the system. Boarding facilities at urban teacher training facilities are having an impressive impact on the numbers of local teachers that we find in rural communities. This effort should be applauded and continued, even expanded if possible. Study should also be considered of ways to use paraprofessional teacher-aides in communities where local students are not fully qualified to enter teacher training institutes. This might help to resolve the problems of teacher absences and administrators' lack of accountability in areas where these issues are significant.

6. School-Sending Readiness. It appears feasible to develop convenient and inexpensive indices of the school-sending readiness of rural communities--indices that could be used for planning future facilities for grades one through nine. These indices, our preliminary findings show, relate to such factors as crowding of existing schools, enrollment trends of boys and girls, indicators of village economic levels, pre-existing formal and informal facilities, and attitudes of community leaders.

7. Policy-Related Issues and Recommendations. A number of minor policy changes appear to be warranted. We feel they would contribute significantly toward accomplishing the goals of USAID and the MOE for the school construction and equipment funding programs.

- In some school districts, children experience difficulty in transferring easily to new USAID-funded schools because of arbitrarily determined district boundaries. This obviates the advantages of constructing a school closer to the children's homes. We recommend that regulations related to enrollment in all new schools be reviewed prior to opening to avoid underutilization of the new facilities.

- Guidelines should be developed requiring schools, especially those in rural areas, to actively seek out parents who do not enroll their children in first grade. Schooling has become so critical to a child's welfare that this opportunity, open only for two years between the ages of six and eight, should not be thrown away on the whim of a parent. In small communities teachers could canvas neighborhoods or work from lists provided by the Department of Health.
- Consideration should be given to the question of what practical courses are most appropriate for children of a given rural area. Agriculture should not be the automatic choice since in some areas, where land fragmentation is requiring the younger generation to seek other occupational opportunities, beginning industrial and commercial skills may be more useful.
- In siting schools, follow a mixed strategy of placing some schools in communities that are "ripe" for enrollment increases and others in communities where a new school might not immediately fill, but where it might itself stimulate change in chronic low levels of enrollment. This way the effect of new school facilities can be both immediate and long-term. In the long run, a mixed strategy might meet MOE goals of universal education more rapidly than a policy of building schools only where there is immediate need.

CHAPTER II. EXTENSIVE STUDY OF THE IMPACT OF NEW SCHOOLS

The objective of the Extensive Study of the Impact of New Schools is to assess the overall impact of the new schools on enrollment, literacy, and numeracy. In the first year of the study sites were selected, data collection procedures and methods of analysis were perfected, and a preliminary report was submitted on the impact of new schools constructed in 1983 on enrollment. The Second Annual Report continues to concentrate on the impact of the 1983 new-school sites.

The following activities have been carried out during the second year:

- a re-analysis of the first-year impact of the 1983 new schools, utilizing more complete data and supplementing the previous graphical analysis with a standard mathematical method of curve fitting;
- an analysis of the second year impact of the 1983 new schools;
- an analysis of the effects of the 1983 new schools on proportions of girls' enrollment;
- an analysis of variables that might be used to predict the size of the impact of a new school on enrollments for boys and girls in grade one, based on variability in the impacts observed at the 1983 new-school sites;
- a preliminary analysis of the impact of the 1983 new schools on "literacy and numeracy" as indexed by the proportions of youngsters passing examinations.

Data from the new schools that opened in 1984-85 were not collected in time to be included in this report. The impact of the 1984 new-school sites will be analyzed in the Third Annual Report.

METHOD

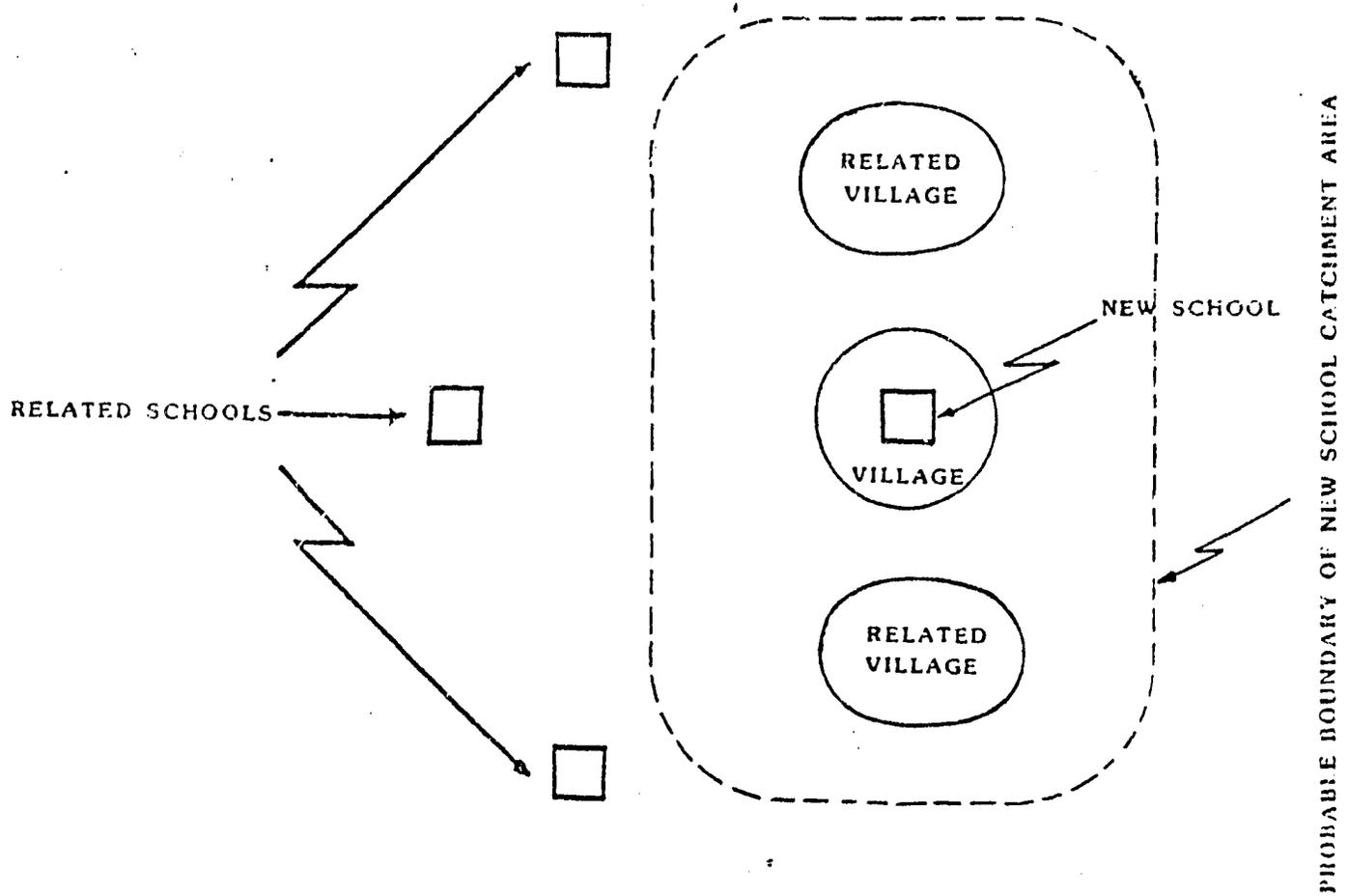
Selection of New-School and Comparison-Control Sites

From the lists of 1983 new-school sites in each governorate (Assiut, Beheira, Kafr il Sheik, Qena, and Sohag), the research team chose four sites at random, a total of twenty sites. With the assistance of Mr. Mahmoud Gamal el Din, the USAID official responsible for approving the sites of new schools, the research team reviewed the site maps for each governorate and identified additional sites that fulfilled MOE and USAID criteria for new schools, but where new schools were not likely to be opened before the fall of 1986. A total of twenty such sites were identified, four in each of the above-listed governorates. These formed a sample against which to compare the impacts of the new schools.

Elements of a New School Site

Figure II-1 shows a schematic diagram of a typical site, consisting of a village where the new school was located, related villages from which other children might come to the new school, and related schools to which children from the new-school site might have gone in the past. To understand the study design, it is essential to keep these elements of a typical site clearly in mind.

Figure II-1:
Diagram of Typical New-School Site



Identification of Related Schools

As shown in Figure II-1, "related schools" were those schools near the new-school site to which some youngsters might already have been going. In order to assess the net impact of a new school, one has to know how the enrollment in its related schools changed when the new school opened. Some children who were expecting to go to first grade in a related school might change their minds and attend the nearby new school. Therefore, their enrollment in the new school would be compensated by a lower-than-anticipated enrollment in the related school. This would be more convenient for the students, but it would not result in a net increase in enrollment at the site. Similarly, students in later grades who would have attended a related school, but who switched to the new school instead, would not contribute to a net increase. However, children who had decided to drop out because of the distance, but who stayed in because the new school was near, would represent a net increase.

The first step in identifying related schools was to determine the location of each selected new school on the map. The second step was to examine the map together with governorate officials and ask the officials to identify all possible schools to which children who might later attend the new school might presently be going. The research team depended on local governorate officials to identify the related schools for each site.

Research Strategy

In order to assess the impact of a new school, one needs to estimate what the total enrollment of the related schools would have been in the absence of the new school. One can then compare expected total enrollment with the observed total enrollment when the new school is included. The difference is the new school's net effect.

To estimate the expected enrollment in the absence of the new school, a time-series analysis was used. Records of enrollment in all the related schools for each site were examined for five years from 1978-79 to 1982-83. From the trends in these records, projections of enrollment for 1983-84 could be made. Then the actual enrollments, including those in the new school, could be compared with the projections.

One might expect the main impact of a new school to be on initial enrollments in grade one. A net increase in grade one enrollment would represent entirely new children coming into the school system. However, a new school might also have an impact on enrollment in grades two through six. A net increase in these grades would represent increased holding power--children who remained in school because the new school was close, rather than dropping out because the related school was far away. These reflect different policy concerns and may be influenced by different factors; consequently, separate analyses were made of:

- boys' enrollment in grade one;
- girls' enrollment in grade one;

- boys' enrollment in grades two through six;
- girls' enrollment in grades two through six.

Table II-1 shows the list of new-school sites included in this report. All five governorates where new schools were constructed in 1983 were represented. The total number of new-school sites was 23. Table II-3 and II-4 list the sites that were used as comparison controls. The control group (Table II-3) comprised sites where new schools were not expected to be constructed for some time. The 1984 new school group (Table II-4) comprised sites where new schools opened in school year 1984-85 but where they do not yet exist in 1983-84.

Table II-1: List of 1983 New-School Sites
N = 23

GOVERNORATE *	MARKAZ	SITE	SCHOOL	FILE NAME	NO. OF RELATED SCHOOLS †
ASSIUT	Ghanayem	Ghanayem*	Talim II Assiut	Ganey	2
	Abu Tig	Abu Kab	Neziel* Abu Kab	Aboka	6
	Bedary	Surur	Asbet Surur II Gadida	Surur	3
BEHEIRA	Manudiyeh	Kafr Nakhla*	Kafr Nakhla II Gadida	Knakl	4
	Man Ise	Manshiyeh*	Manshiyeh II Gadida	Mansh	5
	Edko	Asbet Sitra	Kariyer Sitra	Eserr	1
	Itai II Barud	Ibrahimiyeh	Ibrahimiyeh II	Ioran	1
	Shubra Khayt	Komy	Komy II Gadida	Iikow	5
	Shubra Khayt	Sanadid	Sanadid II Ior	Sanad	2
KAFF EL SHEIKH	Belyala	Aisebnoun	Aisebnoun II Ior	Aisoo	4
	Hamal	Megaz II Sharki	Megaz II Sharki II Ior	Iinag	2
	Kafr II Sheikh	Mostafa Kamel	Mostafa Kamel II Ior	Mosta	4
	Sadi Salem	Abd II Wahed Id	Abd II Wahed Id II Ior	Alwan	4
QEHA	Nag Hamadi	Nag Dahi*	Kafr Abudahi II Ior	Ndahl	2
	Naxeda	Khutaba*	Nag Id Khutaba	Nakut	2
	Abu Tishr	Malsara	Malsara II Ior	Maysa	2
	Arment	Nag II Bakala	Nag II Bakala	Ikaka	4
	Kus	Hamed Ahmed Ramadan	Nag Hamed Ahmed Ramadan	Hakaw	4
	Qena	Gabal	Gabal Ior Mostafara	NEBE	2
SOHAG	Annala	Nag Ahmed Ismail	Ahmed Ismail Ior Sawana Sharq	NAEM	5
	Sohag	Nag II Araya	Nag II Araya II Masharaka	haray	2
	Sohag	Nag Matrud	Nag Matrud II Masharaka	Matr	1
	Tanta	Nag Shanadi	Nag Shanadi	hshan	3

*Intensive Study Site

Table II-3: List of Control Sites

N = 17

GOVERNORATE	MARAZ	SITE	FILE NAME	NUMBER OF RELATED SCHOOLS
ASSIUT	Abu Tig	Hazlet Bakor	Makro	4
	Edari	Abas Amer	Esber	4
	Manfalut	Uwa Sha	Shawa	4
BEHEIRA	Mahmudiya	Asbet El Sheikh All	Sisal	2
	Mosh Isa	Asbet Elwani	Epiwa	1
	Itay El Baraj	Asbet Abu El Fadl	Saifa	3
KAFR EL SHEIKH	Bevalla	Asbet Ibrahim Mostafa	Ebara	3
	Desok	Asbet Fumond	El'am	1
	Hamol	Kamylat Ashera	Kasna	1
GENA	Kellin	Monsiat Sogra	Shons	2
	Abu Tisht	Mag El Tod	Wadd	2
	Kus	Mag Abu Homos	Nabon	2
SCHAG	Mag Hamady	Zel'zen	Zelze	3
	Tena	Mag Abu Zed	Mazed	1
	Sahag	Mag Edfa	Medfa	3
ALMAIM	Sahag	Mag El Amro	Mag	4
	Almaim	Mag El Sahel	Nisan	1

Table II-4: List of 1983 New-School Sites

N = 17

GOVERNORATE	MARAZ	SITE	FILE NAME	NUMBER OF RELATED SCHOOLS
ASSIUT	Manfalut	Sani Pafar	Zanir	3
	Abu Tig	Magor Dekran	Wager	2
	Dayrot	Kodyet Islam	Kodle	8
	Sahel Salim	El Shamiya	Isham	3
	Sahel Salim	Asbet Sabet Basta	Esabe	1
	Koseya	Resht El Der	Resht	3
	BEHEIRA	Kafr El Qamar	Wonsnat El Bekar	Wonsn
Kafr El Qamar		Magok	Magok	2
Abu Homos		Syrqal	Syrqa	2
KAFR EL SHEIKH	Rahmanya	Masri	Qarr	3
	Bevalla	Naseriya	Inasa	4
	Desok	Bayada	Ibaya	1
GENA	Hamol	Zidan	Zidan	3
	Pawa	Saika	Isalk	6
	Kellin	Wonsnat El Kobra	Qitko	4
KAFR EL SHEIKH	Abu Tisht	Der El Nashed	Dfnew	2
	Esna	Dokera	Edott	1
	Farrot	Mag Kharka	Nhar	2
GENA	Kus	Mag El Hani	Wawa	1

Intensive Study Site

Table II-2 shows typical time-series data -from the site of Manshiya, Markaz of Hosh Isa, in the Governorate of Beheira. Year one is the school year 1978-79, year two is the school year 1979-80, and so on. Year six is the school year 1983-84 when the new school opened. Figures in the table show the total enrollment from all five related schools at the site of Manshiya. The figures for year six include the enrollment of the new school as well. Column one shows the enrollments for boys in grade one. Column two shows the enrollment for boys in grades two through six. Column three shows the enrollment for girls in grade one, and column four shows the enrollment for girls in grades two through six.

Table II-2:
Time Series Data from the Site of Manshiya

File name: MANSIH

	Y	1	2	1	2
	E	B	G	B	G
	A	O	S	I	S
	R	Y	B	R	G
	S	S	O	L	I
			Y		R
1	1	117	214	37	34
2	2	146	343	74	99
3	3	139	416	63	164
4	4	110	460	60	200
5	5	162	560	99	263
6	6	192	606	120	320

A table like Table II-2 was made for each site. Straight lines were then fitted to the data for every table for years one through five for each of the four groups shown in the table. After these lines were fitted they could be used to project expected enrollments for year six, which could then be compared to the actual enrollments shown in year six of the table. Figures II-2 and II-3 show this comparison of expected and observed enrollments in graphical form. Notice that the observed enrollments for boys and girls in grade one (Figure II-2) both fall substantially above the expected projection. The observed enrollment for boys in grades two through six (Figure II-3) falls slightly below the projection while the observed enrollment for girls in grades two through six falls exactly on the projection.

The foregoing illustrates the general methodology. Impacts of the 1983 new schools (observed minus expected enrollments) were compared to "impacts" of the nonexistent schools in the comparison-control group. In other analyses, proportions of girls enrolled in the new school were compared to proportions of girls enrolled at a comparable school in the same site, and the proportions of youngsters passing end-of-year examinations were also compared with those matched pairs of schools.

Figure II-2: Enrollment Trends in Grade 1,
Site of Manshiya, Governorate of Beheira

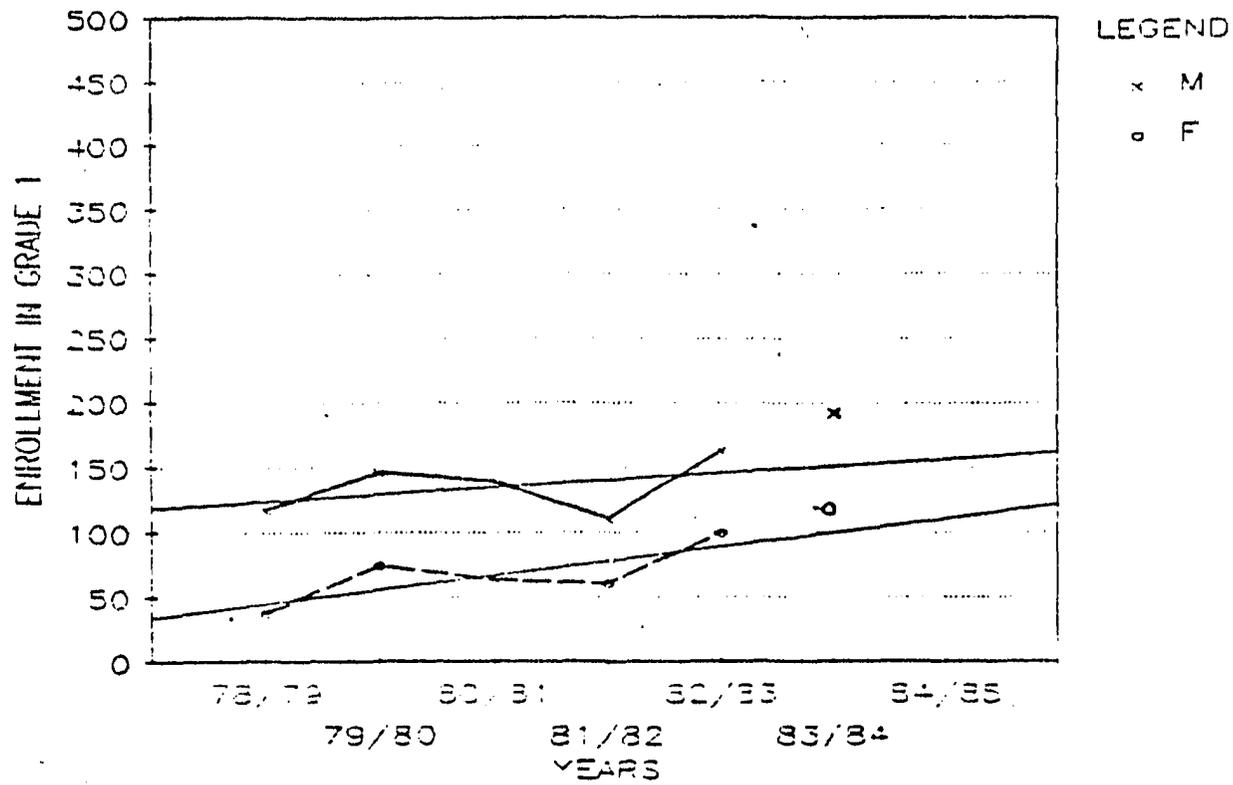
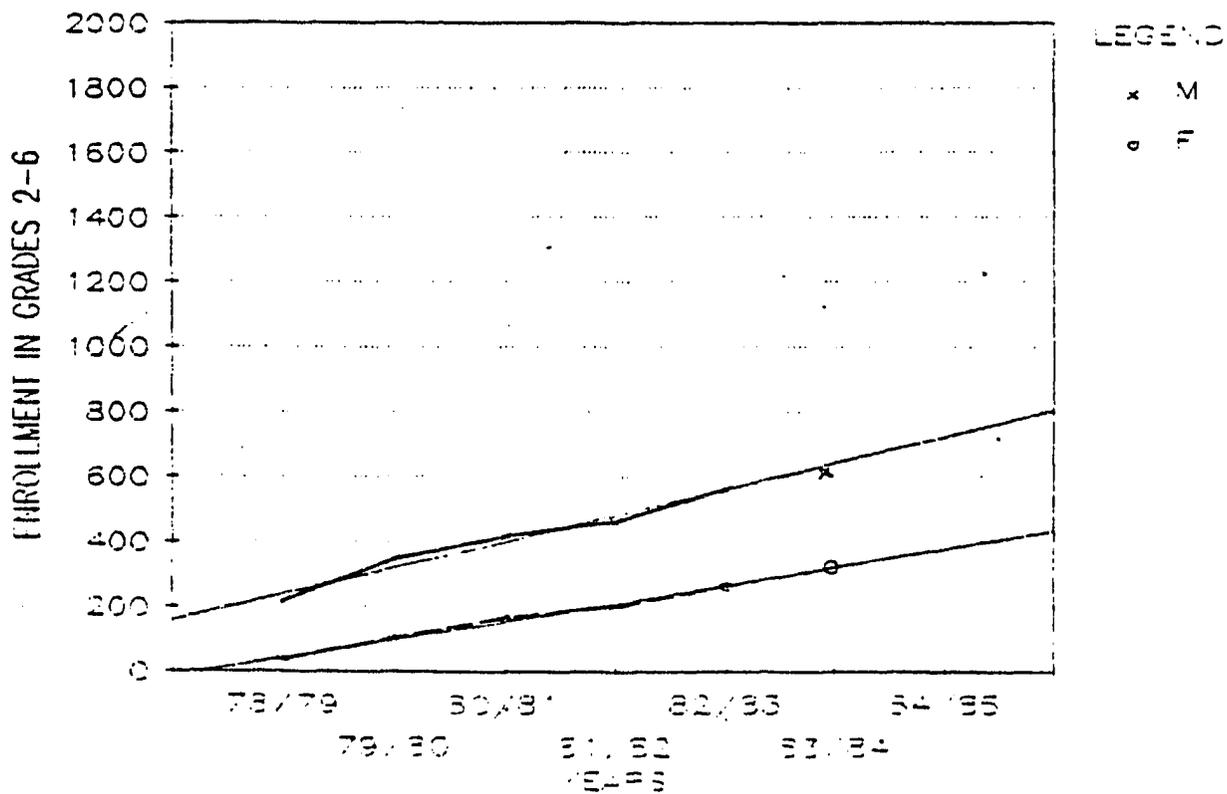


Figure II-3: Enrollment Trends in Grades 2-6,
Site of Manshiya, Governorate of Beheira



FINDINGS

Impact on Enrollment

Impact of the 1983 new schools was significant in comparison to the control sites, beyond the .05 level for all groups of students--boys and girls in grade one and boys and girls in grades two through six. The overall impact is now estimated to be to add, in the first year, approximately 18 boys to grade one, 19 girls to grade one, 46 boys to grades two through six and 26 girls to grades two through six. These are very respectable impacts for a new school. The second-year impact of the new schools was of comparable magnitude to that of the first year but statistical significance did not attach to the comparisons. This is an artifact of the statistical procedures used.

Impact on Proportions of Girls Enrolled in Grade One

A study of the specific impact of the new schools on proportions of girls' enrollment during the first year showed that in the new schools the average ratio of girls to boys in grade one was .856--approximately eight girls for every ten boys. The average proportion in comparison schools at the same sites was .619--approximately six girls for every ten boys. This finding was statistically significant beyond the .05 level. The new schools thus appear to be achieving their specific goal of increasing girls' enrollment.

Prediction of Enrollment Impacts

A study of variables that might be used to predict the impact of new schools, based on variations among the 22 1983 new-school sites, suggests that the smaller the enrollment in the related schools surrounding a site, as indexed by boys' enrollment in grade one, the larger the impact of the new school. A multiple correlation consisting of size of boys' enrollment (negatively related to impact) and rate of change of boys' enrollment over the past six years (positively related) correlated at approximately .4 with new school impact. The same combination of variables predicts the impact of new schools on girls' enrollment at approximately the same level. Thus, in general it appears that within this sort of predominately rural and isolated site, the more rural and isolated the site, the greater the impact of the new school.

Impact on Literacy and Numeracy

No differences were found between percentages of children passing examinations in the new schools and percentages of children passing examinations at comparable grade levels in paired-comparison schools at each site. Further improvements need to be made in the procedure for collecting the examination data. Analysis of the examination data will become more important during the next years of the study.

CONCLUSION

In general, the findings from the second year support and extend those of the first. The results continue to underline the wisdom of locating schools in isolated rural areas as a strategy for increasing both girls' and boys' enrollment with a particular differential effect upon girls. Clearly, there is a trade off. To produce a net increase in enrollment, particularly of girls, new schools should be placed in isolated, rural villages. But for a time these schools will be underutilized in the upper grades. To relieve crowding, new schools should be placed in urban villages, towns, and cities. These schools will be immediately utilized at all grades but probably will not produce net increases in enrollment.

CHAPTER III: STUDY OF NEW EQUIPMENT

BACKGROUND

With the advent of the Basic Education Project, it became necessary to provide teaching equipment for use in agriculture, industry, home economics, science, and social studies. The USAID commodities import program was used for this purpose.

Committees of supervisors and experts in technical education were assembled and charged with compiling lists of needed equipment. In general, the equipment was of two sorts: that needed by teachers as instructional tools--items such as charts, maps, globes, slide projectors and slides, overhead projectors, and demonstration models for use in science; and equipment for student use. The latter ranged from simple hand tools such as saws, hammers, screw drivers, pliers, rakes, steam irons, kitchen utensils, crocheting needles, and other sewing equipment, to rather more complicated items such as electric drills, voltage meters, electric sewing machines, incubators for baby chicks, microscopes, and so forth.

A system was developed for tendering, purchasing, receiving, and verifying order fulfillment, and shipping; for checking for damage caused in shipment or offloading; for actions to correct such errors or problems; and for temporary storage prior to distribution. A parallel system was developed and set into operation for identifying each school's equipment needs so that once shipments were received, verified, inventoried, stored, and made ready for distribution, governorate education officials were notified to come to the appropriate warehouse (in Alexandria or Damenhur) to receive their equipment for distribution to schools.

Interviews were conducted with key officials in the Ministry of Education in Cairo; in the governorate education offices of Kafr il Sheikh, Beheira, Assiut, Sohag, and Qena; and in schools. During the team's visits to each governorate, interviews and briefing sessions were held with the Undersecretary and/or Director General, with the Director of Basic Education, the Director of Planning and Follow-up, with educational zone and district officials, and with relevant supervisors. In the schools visited, the team interviewed headmasters, teachers, teaching assistants, and school secretaries; observed classroom instruction; examined equipment in storage and use; and examined school records and administrative and supervisory procedures.

Information was gathered on the selection, acquisition, and distribution of equipment and the efficacy of that process; on its instructional use in schools, in particular with reference to the curriculum; on the amount and nature of teacher and headmaster training; on the suitability of the equipment for its intended uses; on constraints that might inhibit its use; and on administrative or logistical problems with regard to its use, storage, record keeping, replacement, and repair, among other things.

SCHOOLS VISITED

Since the study was designed to be qualitative and descriptive and to tie into the Intensive Study of New-School Communities, our initial set of schools

was those in the new-school communities. This initial set was then augmented by the addition of a set selected from a list of candidate schools in governorate and markaz capital towns and cities provided us by governorate officials at our request. From that longer list, we selected the additional schools we needed to fill out our sample and make it as fully representative as possible of the full range of schools to which equipment had been provided. Table III-3 lists the location and level of the sample selected schools. Of these schools, 63 percent are mixed-sex schools, 19 percent are girls' schools, and 18 percent are boys' schools. Eighty-three percent of the preparatory schools are single-sex schools. There are no single-sex primary schools in the sample.

Table III-3: Schools By Location and Level

<u>1983</u>		<u>1984</u>	
<u>Beheira</u>			
prim	prep.	prim	prep
Hosh Isa	-	2	
Mahmouidiya	2	-	
Damenhur	1	2	
Kafr Duwar	1	1	
		Manshiya	1
		Abqain	1
		Hosh Isa	1
		Manshat il Awkaf	1
		King Othman	2
		Kafr Duwar	1
		<u>Assuit</u>	
Assiut	2	3	
Beni Rafa	1	1	
Ghaneyem	1	1	
		Manfalut	-
		Azaiza	1
		Ghaneyem	1
		<u>Qena</u>	
Qena	2	2	
Luxor	1	1	
Nag Hamadi	1	1	
		Nag il Dahi	3
		Khutaba	1
		Danfiq	1
		<u>Kafr il Sheikh</u>	
		Roda	1
		Duwayda	1
		Abu Draz	-
		Motobus	-
		Kafr il Sheikh	2
		<u>Sohag</u>	
		Nag il Haref	1
		Nida	4
		Akhmim	2
		Sohag	2

FINDINGS

In this section of the report, we will group the summary and recommendations under the headings of equipment, materials, facilities, inservice training, innovative methods, and assessment.

Equipment

It seems clear from our observations in the classroom, from teacher interviews, and from interviews with headmasters, that more equipment would be extremely useful--particularly in agriculture--if instruction is to offer the students adequate opportunity to use the equipment themselves rather than only observe it in use. Some of this problem might be alleviated by more imaginative scheduling and grouping practices within the classes, but there is a limit to how artful one can be in the absence of enough equipment. In school buildings that house two shifts, we clearly see the need for a system to be devised such that one complete set of equipment, perhaps augmented by a few extra pieces if either shift school is quite large, can be shared between the two staffs. In time, of course, when each faculty has its own separate building, there will be a need to add equipment so that each may have its own. But until then a system for sharing is most cost efficient.

It also seems clear from our classroom observations, teacher interviews, and headmaster interviews that there should be a reexamination of the equipment list for teaching agriculture--particularly with regard to equipment for use in gardens and for working with plants.

The central purchasing and distribution system is working very well--thanks to the dedicated Ministry officials who devised the system and oversee its operation. If the commodities program is to continue, it would be more cost efficient to add a warehouse facility in upper Egypt. Assiut might be the most central area, rather than continuing to have the upper Egypt governorates truck all their equipment several hundred kilometers from Alexandria or Damenhur.

The latest equipment distribution of parts of packages should be discouraged except in those instances in which schools only need a few more items to complete their full set. The original procedure of distributing sets of full packages complete with shipping and price lists should be used in all initial distributions to schools.

Officials are keeping accurate inventory records at both the governorate and school levels, for which they are to be commended, but it seems that the redistribution procedure some governorates use, though keyed to governorate and central inventory records, does not provide MOE/Cairo officials with accurate records. A system needs to be developed for the governorates to use that would provide local officials with the logistical flexibility they need to be more fully responsive to the schools' needs and the central MOE with accurate records so that inequities in the distribution can be prevented and progress in equitable distribution monitored.

The lack of budgets in the schools for equipment repair, maintenance, or replacement will prove more inhibitory of equipment use over time. Few schools have personnel trained in equipment maintenance or repair. To take a trivial example, who is going to sharpen all those crosscut saws made dull by students' use in carpentry classes? Surely, a modest investment in equipment maintenance would be wise to safeguard the large investment made to date by USAID in the commodities-equipment supply program.

It is clear that Basic Education in Egyptian schools involves a great deal more than simply the three practical courses, science, and social studies. And equally clear is the severe shortage of equipment in other areas of the curriculum--particularly music and physical education. We urge consideration be given to expanding the commodities program into these other areas and into the area of instructional supplies, such as paper, textbooks, workbooks and lab manuals, art supplies, chalk (especially dustless chalk), sheet music, and films, which are a few of the things schools must have more of if the quality and efficiency of instruction is to be upgraded. However, we would caution that this expansion not be at the expense of completing the equipment supply for the three practical courses, science, and for audiovisual education. Only once those needs have been met, or it is clear that they can and will be met, should the commodities program be expanded to these other areas of needs.

We are also concerned about the future--about the time when funds may not be so readily available from USAID or other external sources for the purchase of equipment abroad. We suggest, therefore, that USAID and the Ministry give serious attention now to developing a project that will study the feasibility of having the needed school equipment and tools manufactured in Egypt through a combination of private enterprise and state participation. This private/state system participation should include the technical schools. These schools now manufacture some school furniture. There may be some equipment or supply items that they could also manufacture and thus provide valuable training experiences to their students as well. It may be that a modest investment now can have long-term beneficial pay-off.

Materials

At least one of the governorates is experimenting with the central purchase and storage of durable material items such as lumber, wire, metal, etc. These materials are then distributed to schools on the basis of need. Governorate officials believe this to be a more efficient, cost-effective way to provide the schools with the materials they need rather than have each teacher or department head in larger schools purchase the items as needed, get receipts and eventual reimbursement for their receipted expenditures. This system probably won't work for the purchase of perishable items used in home economics or agriculture but it is worth watching.

Teacher reaction seemed mixed; some were delighted not to have to put up with the chores of purchasing, getting receipts, etc.; others preferred the older system since it gave them greater flexibility in the choice of materials, the timing of purchases, and so forth. Clearly the experiment should be watched and evaluated.

This should not be an excuse, however, to put off action to make sure that each school receive its full materials budget allocation. That should be done now.

Facilities

There is a clear and present need in the schools for workshops, especially for industry courses, and for more storage space. No schools have enough storage space, and every school could easily use more storage cabinets.

Inservice Training

Inservice training needs are high, both for teachers and for headmasters. Teachers and headmasters responded to questions about improving instruction by saying that more training and longer training is required. Many, many teachers unfamiliar with the equipment they were using could have benefited from instruction in equipment use itself. This is particularly true of industry teachers. Newer teachers could benefit from training in classroom organization and management. It is no easy task to organize and manage a classroom of active young students into small productive work/learning teams, each of which may be working on a different aspect of the week's lessons. This is particularly difficult to do well in multiple- activity courses such as the three practical courses wherein equipment and facilities must be shared. (How many students can make use of the same work bench at the same time without chaos erupting or safety becoming a problem?)

We saw only four teachers who had deliberately tried to integrate mathematics and science learnings into their practical classes. Since this is a Basic Education goal, difficult to achieve at best, some inservice time and attention should be devoted to it, we feel, for we doubt the situation will remedy itself without such explicit attention. This may well fit into an area teachers seem to feel they wanted help with, an area we label "tradescraft." In short, it includes the technical aspects of a teacher's life, the "how to's" that are involved in solving and coping with the many problems with which teachers must contend on a daily basis.

It is for these reasons that we feel not only should teacher and headmaster training programs be redesigned, expanded, and made more practical, but they should be conducted in actual school settings where good models of effective and efficient ways of teaching the practical courses can be observed and learned. Successful teachers and headmasters should be used as trainers and paid extra for their work. In some schools, one can find senior teachers and persons qualified to be headmasters who cannot accept the job for personal reasons and who have time available to provide inservice training in their own schools, train those in other schools, and help as needed. Perhaps the technical assistance work to be conducted through Work Order No. 6 will address these issues at least on a pilot basis. We hope so and that there be wide-scale implementation of the model if it proves to be successful and if it can be readily adaptable to meet teachers' needs as they change over time.

We also feel it is of vital importance that headmasters receive inservice training also, particularly headmasters of the smaller, rural, and remote rural schools. Instructional leadership demands on these officials are much higher than on their colleagues in schools in towns or cities. Training in instructional supervision and leadership is especially important for those in more remote locations where transportation is difficult or even impossible at times for they cannot rely on the instructional leadership of subject supervisors and the schools are usually too small to have highly qualified subject specialists or department heads. Hence, it is the headmaster who bears the major responsibility for technical supervision and instructional leadership.

Innovative Methods

We felt from our observations and interviews that improving instruction was so vital in the Basic Education courses that inservice education, as important as it is, would not suffice. We therefore spoke with officials in the governorates about the importance of establishing a system that promotes the development and use of new methods. To be effective it is essential that the methods be developed, tested, and revised within classes in regular Basic Education schools set, not in expensive or unusual "model" schools. We agree there is a need in Egypt for model schools but feel strongly that using regular, ordinary but good schools in which to develop and teach a sustained program of this type will make Basic Education more effective, consistent, and efficient.

Teachers could test and practice innovative methods; then they could instruct other teachers in the use of techniques they found successful. Over a relatively short time a more effective mix of instructional techniques than one now sees might appear in the classroom and teachers might become more enthusiastic about teaching the practical courses.

Assessment

In the opinion of most, unless students in the practical courses are examined as rigorously as they are in their other courses, and unless their test scores are used in some way that is significant to them, both the students and the teachers will not take these courses as seriously as they do others. Additionally, with the current system it is almost impossible to know with any certainty whether the practical courses are building the attitudes, the knowledge, and the skills that they were designed to produce.

In order to know whether the practical courses are meeting their objectives, students' attainment and growth over the five years in which they are enrolled in the practical courses must be measured in a systematic and valid way. A consistent, objective system of measuring student performance, particularly in the skill areas, needs to be developed and implemented.

SPECIFIC RECOMMENDATIONS

On the basis of our study of new equipment, we would make the following specific recommendations now, listed in the order of their priority.

- The Ministry's current practice of constructing workshops for schools that do not have them should be continued and expanded if at all possible. We also urge the MOE and USAID to consider including workshops and special-purpose rooms in new USAID-funded schools.
- A revised, more effective, and more efficient inservice training system should be devised and implemented nationwide, based on an examination of the current inservice training system for teachers of practical courses and for headmasters. That system should use effective Basic Education schools as training sites and successful teachers and headmasters as trainers.
- Careful attention should be paid to analyzing the equipment needs of agriculture teachers in particular and revising that equipment list.
- Consideration should be given now to expanding the commodities program to include other school subject areas with equipment needs--music and physical education are two that need attention now--and to the area of instructional supplies, provided this expansion is not done at the expense of completing the equipment purchases and distribution for the three practical courses, science, and audiovisual education.
- An explicit examination should be made of the official systems and of popular practices in the governorate offices and in the schools for the distribution, assignment, redistribution, inventory, maintenance, repair, storage, and replacement of equipment and materials. Thus, a more effective and efficient system could be designed, developed, tested, and implemented for and in the governorates.
- In the interests of equity, we strongly recommend that schools have only the amount of equipment they actually need and that excess equipment now in some schools be redistributed to those that are short. Moreover, we recommend that governorate officials set aside and store equipment for the new schools that are being built so that they can be completely equipped with new equipment when they open their doors for students.

- We recommend the development and installation of a set of procedures that will enable multiple-shift school buildings to share equipment while yet having someone accountable for its care.
- We recommend that every effort be made to see that all the schools are allocated their full materials budget. Further, the question of whether those allocations should be higher should again be examined carefully by the MOE.
- We recommend that the MOE and USAID/Cairo study the feasibility of manufacturing in Egypt as many as possible of the supplies, teaching materials, and equipment the schools need. This should be designed as a project using both the public sector--technical and industrial schools, for example--and private enterprise.
- A system should be established for developing and testing innovative methods of teaching the practical courses in Basic Education in each of the governorates. It should include a communication system for sharing the results among the governorates and within each one, and a subsystem for implementing the adoption of these new proven methods in other schools through training programs, support services, appropriate supervision, and an incentive system to encourage headmasters and teachers to participate.
- A consistent and objective student performance assessment system for the practical courses needs to be designed, tested, revised, and implemented on a nationwide basis. It should include a requirement that the results of the measures have consequences of importance to students and teachers to ensure that they are taken seriously and administered fairly and properly. Such an assessment system must contain objective ways of measuring the practical skills as well as the acquisition of knowledge (often referred to as the "theoretical" portion of the courses).

The Evaluation Team will be glad to expand on the recommendations, of course, and is prepared to do so in greater detail should the request be made.

CHAPTER IV: STUDY OF TECHNICAL ASSISTANCE

BACKGROUND

Once the school construction and commodities programs were established, USAID and Ministry officials turned their attention to providing the Ministry with appropriate technical expertise in Ministry-designated high priority areas. The first so designated were curriculum, teacher training, educational planning, educational economics, and school designs.

The mechanism used was a host-country time-and-effort contract through the Ministry of Education (MOE) for the provision of technical assistance in support of the Basic Education Program. This provided the Ministry with flexibility to call on expertise as needed and to adjust work efforts easily to fit new needs as they arose.

In the spring of 1983, the Ministry completed negotiations with the Academy for Educational Development for a three-year contract to provide the required technical assistance. Specifically, in response to a statement of priorities from the Ministry, the Academy was to provide:

1. state-of-the-art information on the priority topics;
2. qualified consultants (to work on these same priority topics); and
3. management structure and coordination for the entire process.

In short, the Academy was to design and provide the technical assistance delivery system, to staff it as needed with qualified consultants, and to offer the latest state-of-the-art information upon which they and the MOE could base alternative courses of action.

APPROACH

"The objective of the technical assistance to be provided under the Basic Education Project is to support efforts of the Arab Republic of Egypt through its Ministry of Education (MOE) to develop an analytical base for and to devise programs to implement planned educational change at the primary and preparatory levels (grades one through nine)."*

The study of technical assistance is designed

- to assess the amount, nature, and utility of the impact of the technical assistance at the policy and operational level of the Ministry and its governorate offices;

*Project Paper, Egypt Basic Education, Project Number 263-0139.

- to determine what the program's effects, if any, were on other institutions in Egypt's educational system--such as the Schools of Educations' pre-service education programs and the Teacher Training Institutes' programs; and
- to determine what impact the program would have on actual school practices.

The study design was guided by the following hypotheses.

- AID-financed technical assistance will stimulate noticeable changes in important aspects of the rationale, objectives, and procedures through which the MOE organizes and supports curriculum development, teacher training, educational planning, and cost analysis for basic education.
- AID-financed technical assistance will stimulate noticeable changes in the rationale and procedures that guide the MOE in evaluating the effectiveness and efficiency of programs in the areas of curriculum development, teacher training, and related programs that enhance the relevance, efficiency, and effectiveness of basic education.
- AID-financed technical assistance may have a noticeable effect on educational activities in primary and preparatory schools.

The technical assistance study gathered data from interviews of key technical assistance providers, key recipients of the advice, and key department staff in the areas in which technical assistance is provided to see if they perceived any clearly identified areas of change resulting from technical assistance and to gather their estimates of the significance and importance of those changes.

Additional data sources include the various documents generated in the course of the technical assistance program. Document analysis plays a prominent role in guiding the interviews, and when appropriate and feasible, in-system observations of practice will be made in the schools and in administrative offices at Ministry and governorate levels.

Clearly, not all technical assistance systems are, will be, or even can be fully comprehensive. Yet it is useful to analyze each on a set of idealized dimensions. Consequently, as we follow each work order and its consequent activities through the system that has been established between the Academy and the Ministry of Education, we will attempt to examine how the efforts surrounding each work order are affected by the properties of the technical assistance delivery system as it was designed, and as it is modified in practice over time.

ORGANIZATION OF THE TECHNICAL ASSISTANCE PROJECT

Since the delivery of technical assistance services was not to be either informal nor casual but formal; ordered, and deliberative, the Academy's first effort was to design a formal but temporary organization. This provided the mechanism through which services could be agreed upon, ordered, delivered, reviewed, deliberated upon, and accepted or rejected.

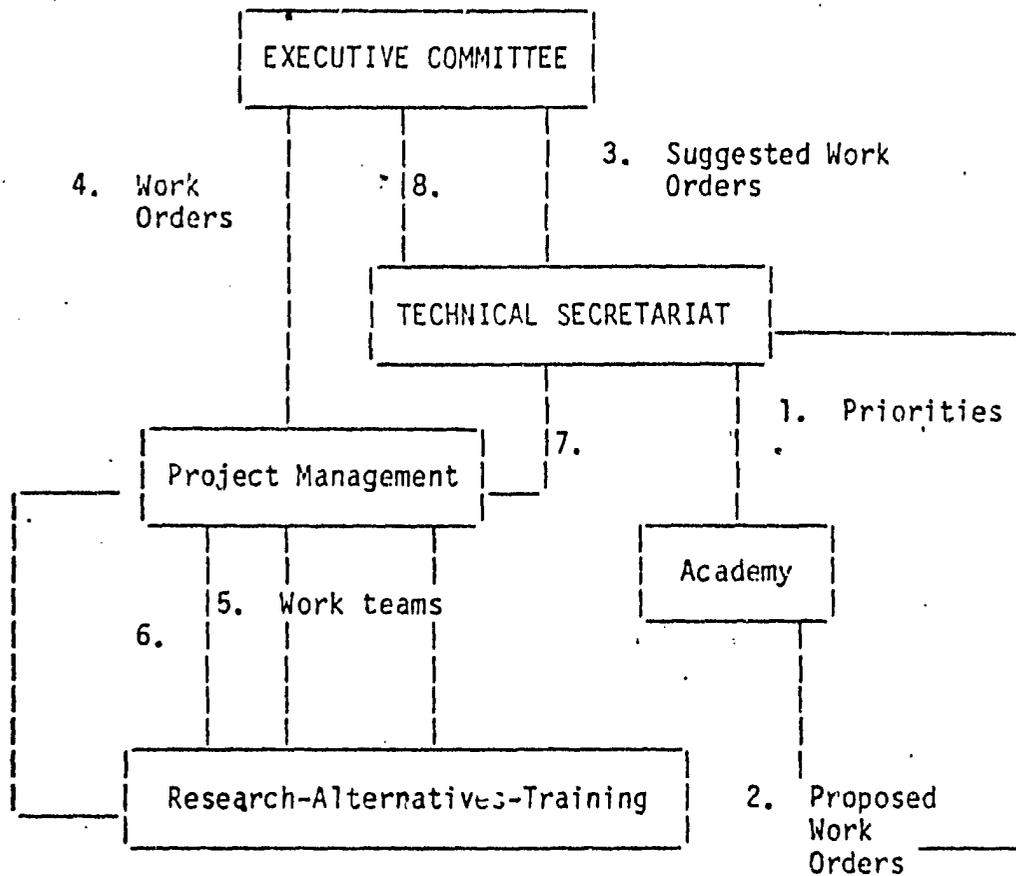
Early on, the Academy and the MOE agreed on the operational aspects of the technical assistance system by creating what was in effect a "charter" for its operation. This delineated the function each element in the organization was to play, empowered each with the appropriate authority and responsibility, listed its membership, and described the general procedures to be followed from the inception of a piece of work to its completion and final acceptance or rejection.

Figure IV-1, a verbatim copy from Work Order No. 1, shows the flow cycle of project activities. Note that the cycle commences with the Technical Secretariat working with management to convert priorities into work orders, which are then submitted to the Executive Committee for approval. Once approved, project management then selects personnel and forms the work teams. Upon completion of the work, products are fed back through project management to the Technical Secretariat for its consideration. In turn the Secretariat make recommendations to the Executive Committee for product disposition.

Note that, unlike most technical assistance efforts, this one contains no needs-assessment cycle. Nor is there any mention, in early project papers, of the process of product implementation--that is, of how or whether any of the results will be put into practice or "institutionalized."

Figure IV-1

Project Implementation Process Showing the Flow Cycle of Project Activities*



*The numbers show the sequence of activities.

TECHNICAL ASSISTANCE WORK SCHEDULES

The Academy had prepared and negotiated the first five work orders by mid-May 1983. Work Order No. 1 resulted in the design of the technical assistance delivery system and the "charter" for its operation. Work Order No. 2: "Assessing the State of the Art of Basic Education" (curriculum and teacher education), No. 3: "Education Economics of Basic Education," and No. 4: "School Designs for Basic Education," were derived from and directly responsive to the MOE's priority paper. Work Order No. 5: "A Computer-Based Planning Model for Basic Education" reflects a basic need arrived at by the Academy after discussion with MOE officials--that of helping the Ministry sophisticate its planning systems.

ACCOMPLISHMENTS

Figure IV-2 shows the status of all work orders undertaken or approved in the first two years of the TA contract (June 1983--May 31 1985).

Following the negotiation of these first five work orders, the Project Director quickly selected and nominated a slate of experts for each, early in the summer of 1983, since an early and prompt start was imperative if a tight timetable was to be met. However, no further overt action on the approval of the foreign experts nor on the nomination of a counterpart team took place until the Academy forced the issue by preparing to have the foreign experts begin Work Order No. 2 in early December. Even so, the Egyptian counterpart team was not appointed until over half the time available to the American experts had elapsed.

The Work Order No. 2 team's draft report was presented to USAID/Cairo on January 19, 1984. The Technical Secretariat met on three occasions--January 25, February 1, and February 8--to discuss the draft and to prepare a critique for the team to use in preparing the final report, which was completed in March 1984.

By mid-May of 1983, the foreign experts for the work orders on economics, school design, and computer-based planning had all arrived in Egypt to begin that portion of their work that required their presence in-country.

The unexplained delay first experienced in the summer of 1983 in approving foreign experts and nominating Egyptian experts for Work Order No. 2 seems to have had a lasting and compounding effect, as Figure IV-2 shows. Work on Work Order No. 2 got started four months late, No. 3 started over seven months late, No. 4 was delayed by about eight months, and Work Order No. 5 was substantially delayed, as well.

Phase II of Work Order No. 5: "A Computer-Based Planning Model for Basic Education," was completed in time for a presentation to USAID/Cairo and a presentation to and enthusiastic reception by the MOE in late February 1985. Work on Phase III has proceeded apace but its completion and the beginning of work on Phase IV are contingent upon the successful completion of the procurement and delivery of the computers to be installed in the Ministry and in governorate education offices. Unfortunately, there has been much confusion and backing and filling on the MOE's and USAID's part about the procurement. It became entangled in changes of mind about who should be responsible for the procurement, in delays in obtaining appropriate clearances, and in other bureaucratic red tape in both institutions. As of the end date of the period covered in this report, May 30, 1985, the procurement had become the responsibility of USAID/Cairo.

FIGURE IV-2
 Technical Assistance Project Work Schedule
 Planned vs Actual (As of May 30, 1985)

Work Orders	Start Dates		First-Draft Due Dates		Final Report Due Dates	
	Planned	Actual	Planned	Actual	Planned	Actual
#2: Assessing the State of the art of Basic Education (curriculum) and teacher education)	early Aug '83	mid Dec '83	early Sep '83	mid Jan '84	early Oct '83	Mar '84
#3: Educational Economics of Basic Education	early Oct '83	mid May '84	early Nov '83	mid Jun '84	early Dec '83	Sep '8
#4: School Designs for Basic Education	early Aug '83	mid May '84	early Sep '83	mid Oct '84	early Oct '83	late May '85
#5: A Computer-based Planning Model for Basic Education						
Phase I--Establishing data bank procedures and developing strategies	beginning Jun '83	mid May '84	No report 6 months for phase	N. A.	N. A.	N. A.
Phase II--Model design and modification	beginning Jan '84		end of Mar '84	late Feb '85		
Phase III--Full implementation and presentation	beginning Apr '84		end of Jul '84		end of Jul '84	
Phase IV--Training	beginning Aug '84		early Dec '84		N. A.	
Phase V--Followup and monitoring	beginning Jan '85		end of Jun '85		N. A.	

*The preparation of technical papers by the two Egyptian experts began in Feb '84. The American expert arrived in Egypt May 16 to begin the "in country" phase of his work.

Figure IV-2
(Continued)

Work orders	Start Dates		First-Draft Due Dates		Final Report Due Dates	
	Planned	Actual	Planned	Actual	Planned	Actual
#6: Development of Basic Education Teachers In-service Training— Programs and Techniques	Eff. Date: Feb 19, 1985		Not known		May, 1986	
#7: Handicapped in Basic Education	Eff. Date: Feb 19, 1985		Not known		May, 1986	
#8: Organization and Management	Eff. Date: Feb 19, 1985					
Part 1: Diagnosis	Will require 3 wks: 5 in Egypt, 3 in U.S.		3 weeks from starting			
Part 2: Policy Planning	Will begin 4 mos. after end of Part 1: Diagnosis		At end of period			
Part 3: Execution Monitoring	Will begin 4 mos. after reorganization efforts have been initiated		N.A.		May, 1986	

With the beginning of the new contract year (June 1, 1984--May 30, 1985)-- a change took place in the top leadership of the Ministry. Responsibility for primary and secondary education and for the teacher training institutes was separated from responsibility for higher education and scientific research and placed under the direction of a new Minister of Education, appointed from outside the Ministry. Responsibility for higher education and scientific research remained in the portfolio of the Deputy Prime Minister of State for Education.

These leadership changes quite naturally affected the timing and conduct of technical assistance activities, especially with regard to defining and establishing new work orders. Fortunately, the new Minister had been a member of the Technical Secretariat and was familiar with the technical assistance project and how it worked. In addition, two of the original group of Ministry staff who had acted as architects of the project in the MOE remained in the Ministry as consultants and were available to brief those of the new leadership not fully familiar with the project.

The Academy was quick to respond to the new situation. By early October it had presented the new Minister with an ambitious and comprehensive new plan and reorganization of work for the remaining two years of the contract and a reorganization of its operating staff in Egypt. In the end it proved impossible for the Ministry to approve the proposal. After consideration, it first rejected the new work plan but continued consideration of the staff reorganization. In time, however, that was rejected as well, ostensibly because of its expense.

Following rejection of the plan, the Academy's Project Director and Assistant Director discussed possible new areas of work with members of the Technical Secretariat. From these discussions they were able to generate and rework formulation of three new work orders that were formally approved on February 19, 1985--nine months after the beginning of the second contract year.

THE NEW WORK ORDERS

The first, Work Order No. 6, entitled "Development of Basic Education Teachers Inservice Training--Programs and Techniques," had six major objectives.

1. Assess present organizational structure of training and suggest needed changes and improvements.
2. Assess present inservice training programs, techniques, and practices for Basic Education teachers in Egypt.
3. Develop a list of identified additional needed inservice training modules for Basic Education teachers.
4. Develop guidelines to prepare new inservice training modules appropriate for Basic Education teachers in Egypt.

5. Prepare a sample of inservice training prototype material.
6. Design and conduct an intensive training workshop to develop and improve the professional training skills of Basic Education inservice training staff.

Work Order No. 6 is the only one of the three new work orders that seems in some measure related to a previous work order. Establishing criteria for selecting, preparing, and training Basic Education teachers and administrators had been one of the objectives for Work Order No. 2. Their recommended number two priority in that final report was to "develop a short-range and long-range inservice education training plan for teachers and administrators of Basic Education." The evaluation team had made a similar recommendation in its First Annual Report.

Work Order No. 7: "Handicapped in Basic Education" has the following five objectives.

1. Assess present testing, evaluation, placement, and counseling techniques used with handicapped children at the Basic Education level in Egypt.
2. Evaluate presently used systems and different services and tools and suggest possible improvements and/or additions.
3. Develop prototypes of appropriate additional tools based on (2) above.
4. Train staff and personnel on the appropriate use of said tools.
5. Study possibilities of providing modern equipment to enhance the educational and rehabilitative processes for the handicapped.

Work Order No. 8: "Organization and Management" has one over-arching objective.

The purpose of this work order is the preparation of a reorganization plan that, when executed, would strengthen the organizational and management capabilities of the Ministry, allowing the better utilization of time and effort in the spreading of Basic Education and reaching its goals.

Work Order No. 8 is divided into three parts: "diagnostic, policy planning, and execution monitoring." Part one is estimated to take a total of eight weeks, five in Egypt and three in the United States. Part two is scheduled to begin four months after the completion of part one. The last part, "execution monitoring," is to begin four months after "the reorganization efforts" have begun within the Ministry.

By the end of this reporting period, May 30, 1985, no detailed work schedule for the new work orders had as yet been projected. In each, the effective date--the date on which work could have commenced--is the "date of last signature," or February 19, 1985. The estimated completion date is May 1986, the last month of the current contract.

Figure IV-3 briefly summarizes the status of all work activities in the technical assistance project for the first two years of the contract. The left hand column shows the work accomplished in 1983-84; the right hand column shows the same for the 1984-85 contract year. The stages listed in the middle of the page, beginning with "Design" and ending with "Implementation" are convenient analytic categories under which to group technical assistance system design and construction.

Unfortunately, the technical assistance contract work is even farther behind now than it had been at the end of the first year. At this, the two-thirds point in the contract, four work orders out of the eight issued have been completed.

To summarize briefly, Work Order No. 1 enabled the organization and staffing of the technical assistance system and the development of its operational charter. Work was completed on Work Orders No. 2 and 3 and their final reports were accepted by the Executive Committee and have been shelved. Action on the final report of Work Order No. 4 by the Technical Secretariat awaits the results of a review by a specially appointed technical panel of experts.

The next set of activities planned for Work Order No. 5 is the training of appropriate MOE staff and the installation and trial use of the computer-based planning system. These await USAID/Cairo's completion of procurement action for the necessary hardware and software.

Three new work orders, Nos. 6, 7, and 8, were negotiated and signed by the MOE on February 19, 1985. The Academy received approval of the foreign expert candidates for the three work orders from the Technical Secretariat on May 19. However, no Egyptian experts had been approved by the end of this reporting period, May 31, 1985, and therefore no work on the three new work orders had yet started in Egypt.

These delays in the technical assistance system's timing mechanism will have the certain effect of forcing the remaining required work into the last contract year and there may well be problems in completing all the work laid out to date.

However, despite these problems, work proceeded on the three extant work orders during the 1984-85 year. No. 3 went from draft to final report preparation and acceptance, final report preparation was completed for No. 4 in the following month, and substantive work was accomplished on Work Order 5, culminating in successful presentations to MOE and USAID/Cairo in mid-February.

Figure IV-3: Work Flow Status as of May 31, 1985

1983-84

1984-85

A. Design Stage

- Original design of TA system completed in May 1983.
- Reformulation of design for remainder of project presented to Ministry in October, 1984; eventually rejected by MCE.

B. Needs Assessment

- None made. Contractor accepted MCE's statement of "priorities," except for study of school administration, school mapping, and student flow and drop-outs; computer-based planning was added.
- Informal needs assessment made through conversations, discussions with members of the Technical Secretariat, converted to draft work orders 6, 7, and 8, reviewed, critiqued by T.S., re-drafted by contractor (except for the priority on the handicapped W.O. No. 7 which originated with the Minister).
- "Priorities" translated into work orders in May 1983.
- Final work orders completed in January '85.

C. Work Specification

- Completed in May 1983 for first five work orders.
- Completed for work orders 6, 7, 8, in January 1985.
- Work Orders 2,3,4,5 approved and project management authorized to proceed in May 1983.
- Work orders 6,7,8 approved and project management authorized to proceed in Feb. '85.

D. Expert Selection

- Experts were nominated early by the Academy (mid July '83) but MCE approvals and the nomination of Egyptian counterparts were held up until it was too late to begin work on the original schedule. Thus, all work may fall behind schedule.
- Foreign experts were nominated by the Academy and accepted by the Technical Secretariat on May 10, 1985. All the Egyptian nominees for expert positions (10 nominees for each work order) were rejected by the Technical Secretariat who requested that additional persons be nominated.
- Foreign experts for Work Order 2 were hired and arrived in Egypt a week to 10 days before Egyptian counterparts were hired.
- By May 31, 1985, no Egyptian experts yet approved, no final action taken by the Executive Committee on foreign experts, no work schedules yet approved for work orders 6, 7, 8.

E. Pre-Visit Preparation

- This was an area of great difficulty for Work Order 2. It was apparently remedied for subsequent work orders, at least with regard to the preparation of background papers by host country or other experts, by an agreement negotiated by the Academy that Egyptian experts be hired in advance of foreign experts and that foreign experts would not be sent to Egypt until they had received and had had time to study pertinent background papers, data, etc.
- No action taken as yet for Work orders 6,7,8.

Figure IV-3 Cont'd

1983-84

1984-85

F. Team(s) Begin Work

- Work Order 2, 3, 4 and 5 teams began work, though starts were much delayed.
- In-country work, preliminary draft reports, final report, and oral reports to USAID/MOE were completed for Work Order 2. Preliminary draft, oral report to AID/MOE, was completed for Work Order 3.
- Final report for Work Order 3, "Educational Economics" completed, accepted by Technical Secretariat and by Executive Committee.
- Final report for Work Order 4, "School Designs," submitted to Technical Secretariat. Academy has recommended that a special committee of technical experts be appointed to review the final report and advise the Technical Secretariat on what action(s) to take with regard to the report (not acted on by MOE by May 31, 1985).
- System design for Work Order 5, "Computer-based Planning," using partial, exemplary data completed, presented to MOE/AID for review, discussion, critique, feedback for use in design review; operationalization of system with "real" data completed by Feb 19, 1985. All system specifications reviewed, finalized and final decision on who would procure hardware, software made; fast procurement action urged yet again by May 1985. Next scheduled activity is installation of the system and the training of central MOE and governorate staff in its operation. Dependent upon the purchase of the computers and the related software, however, since the training is "hands on."
- No teams yet appointed for Work orders 6, 7, and 8, so no work begun aside from general planning on Academy's part.
- No technical Review I done by Technical Secretariat for Work Order 3, "School Designs." (See F. above)

G. Technical Review I

- Completed for Work Order 2, "Curriculum and Teacher-Education."
- Completed for Work Order 3, "Educational Economics"
- Completed for design stage, Work Order 5, "Computer-based Planning."

H. Final Report Preparation

- Completed for Work Order 2, "Curriculum and Teacher-Education."
- Completed for Work Order 3, "Educational Economics"
- Completed for Work Order 4, "School Designs."

I. Technical Review II

- Completed for final report of Work Order 2, "Curriculum and Teacher-Education."
- Completed for Work Order 3, "Educational Economics"
- Pending for final report of Work Order 4, "School Designs."

J. Executive Action

- Completed for final report Work order 3, "Educational Economics" only.

K. Implementation

- None
- None

IMPACT

As previously noted, this study of technical assistance was designed to determine what impact the program would have on the Ministry and other government offices and in schools. Despite our hopes, it is clearly premature to make any firm judgments at this time on what impact, where, if any, the total Technical Assistance Project will have. In fact, one cannot yet assess the impact of the work done to date, for as mentioned previously, the only two final reports completed and accepted by the Executive Committee to date have been shelved. Given the Secretariat's response to the final report of Work Order No. 2 that it "met only minimal specifications," it seems only natural that it would be shelved.

The final report of Work Order No. 3 was received with enthusiasm, however, and therefore one would have expected its fate to be different. Perhaps, with the passage of enough time, it will have an impact at policy and operational levels within the Ministry and its governorate offices, though the fact that since its enthusiastic reception some eight months have elapsed to date with no action does not lead one to be too hopeful.

RECOMMENDATIONS

Given that we see no evidence as yet of implementation or planning for it, although Work Orders No. 5, 6, 7, and 8 all will involve some limited implementation, we recommend that the MOE, USAID/Cairo, and the Academy concentrate time and attention on implementation issues during this last contract year. Without implementation there obviously will be little institutionalization-- little or no impact.

A good start would be to institute some changes in the Technical Secretariat's duties and responsibilities. This would involve setting up an implementation planning system that would operate under the general authority of the Technical Secretariat and would require its active involvement.

The system should contain at least the following functions:

- a) deciding which technical assistance recommendations in each work order's final report should be implemented;
- b) setting up a priority system for implementation through identifying
 - those that can and should be implemented without a great deal of additional development or research work, and
 - those that should be implemented but require more research or development work, andestablishing a priority order for implementing the recommendations, including the additional research or development work required for some to be implemented;
- c) setting up an overall action-plan and timetable for implementation in the appropriate sequences;

- d) assigning implementation responsibilities for each set of recommendations;
- e) analyzing the budgetary requirements for each;
- f) recommending appropriate administrative, policy, and procedural action to accomplish the goal; and
- g) planning and recommending appropriate follow-up and evaluation to assess the effectiveness of the action taken to implement the recommended changes.

We further recommend that every final technical assistance report be submitted in Arabic, for even those in the Secretariat most facile in English often find it difficult to read technical reports with complete understanding, particularly when the authors use technical jargon, as most do. Moreover, having the reports in Arabic would make them fully accessible not only to Secretariat members but also to those relevant others in the Ministry and elsewhere whose understanding, involvement, and commitment are required if implementation is to occur.

Since the Technical Secretariat members are all busy officials with full-time positions, this recommendation may require assigning some staff and more administrative time for Academy staff in Egypt to work with them in order to make sure there is adequate time and energy devoted to this important set of tasks.

We suggest further that the MOE and USAID/Cairo discuss the implementation problem and the issues it generates fully, particularly with regard to supporting those efforts over the next two or three years.

These discussions should commence as early as possible and proceed concomitantly with the planning so that sufficient time is available to both the MOE and USAID/Cairo to plan and negotiate any further support project whose necessity and requirements emerge as a result of the Secretariat's planning system and the joint MOE-USAID/Cairo discussions.