THE EGYPTION POPULATION AND
FAMILY PLANNING REVIEW
ISSR,CAIRO UNIV. Vol.37,No.2,2004

Educational Status of the Egyptian Adolescents

Eman Ahmed Aly Ismail

This research is a part of the proposed Ph.D.

I. Introduction

There are more young people on Earth than ever before. Abou 1.7 billion people are between the ages of 10 and 24, and the vast majority live in less developed countries. Meeting the needs of youth today is critical because the actions of young people will shape the size, health and the welfare of the world's future population **(Boyd et al., 2000).**

One of the critical needs for the youth is education. Recent world conferences have called for universal access to and completion of primary education, and for reducing the "gender gap"- differences in boy's and girls' enrollment - in secondary eduction.

Education is seen as an important tool to achieve gender equality and adobscents empowerment. Indeed, basic literacy and other basic skills are absolutely vital to adolescents' empowerment, and without the skills acquired in secondary education, adolescent cannot obtain better paid employment.

Moreover, decades of research have shown that educated women have greater control of their reproductive lives, such as decisions about the number and spacing of their children. Research also shows that women with more education have healthier children **(Boyd et al., 2000).**

Egypt has a great opportunity of having a "demographic bonus", as a "bulge" of young people grow up and become part of the work force while fewer children are born. This is exactly what happened in East and South-East Asia and many developing countries where there were a rapid increase in the proportion of the population in working ages because of the lower mortality and fertility **(UNFPA, 1998 and 1999).**

The term youth includes preteens and teenagers (ages 10 to 19) and young adults (ages 20 to 24). This study will focuse on the first age group, which is equivalent to the term adolescents.

I-1 Research Problem

The only reference to closing a "gender gap" was in relation to education during the International Conference on Population and Development (ICPD) in Cairo in 1994 **(UNIFEM, 2000).**

In Egypt, the gender gap in the primary stage is largest among adolescents from low socioeconomic background and in rural Upper Egypt, reflecting the extent of girls' deprivation from education. On the other hand, in the preparatory stage the situation is different. Among boys in urban lower and Upper Egypt, another gender gap in favor of girls appears, that is, boys in these two regions have higher dropout rates than girls at this stage of

education. Then, in rural Upper Egypt the pattern indicates that the level of school ever attendence is higher among boys and at the same time their dropout rates are lower than those for girls' this inflates the gender gap across successive education stages **(Ibrahim et al., 2000)**.

I-2 Objectives of the study

The main object of the research is to describe and analyze the demographic and socioeconomic determinants of the educational status of the Egyptian adolescents. Thus the specific objectives of this study include:

1- To describe the factors affecting the adolescents' education.

2- To examine the relationships between the educational status of Egyptian adolescents and the background and intermediate factors to analyze the factors affecting adolescents' education.

I-3 Review of Literature

This research was based on literature in two main directions youth and gender. Youth are a marginalized social group and a long neglected population category in the demographic literature. So, they deserve to receive high priority on international research and policy agendas. The call for more attention to youth started since the early 1990s **(El-Tawila 2000)**. In Egypt, there is a dearth of information on this stage of life, although the international literature provided few useful models for thinking about the realities of Egyptian adolescents. However, most of the literature focused on the issue of the reproductive health.

Gender inequality holds back the growth of individuals, the development of countries and the disadvantages of both women and men. The lack of support for girls education limits their future choices.

Here are some studies which focused on the adolescents:

- Jacobson study stated that the availability of family planning services is a necessary but far from sufficient condition to achieve global population stabilization. The reasons for this, in countries where a high proportion of people are under fifteen, population continues to grow at a relatively rapid pace even after birth rates have fallen markedly **(Jacobson et al., 1994).**

- Barnett, stated that during childhood, boys and girls receive different messages about behaviors that are expected of them-messages from parents, society, peers, the media-messages from parents, society, peers, the media-messages that some behaviors are acceptable for boys but not for girls and vice versa **(Barnett, 1997)**.

- **El-Tawila** realized that accessibiliy to the education system was not universal. The findings also suggested that girls are preferred and more highly esteemed as students in Egyptian preparatory schools than boys **(El-Tawila et al., 2000).**

- The State of World Population: was mainly about gender. It includes many subjects, gender and health, violence against women and girls, gender equality, counting the cost of gender inequality, women's rights and working towards a better future **(UNFPA,2000).**

- The World's Youth 2000. is a comperhensive report which gives a profile of today's youth, providing data on population, education and health with a special focus on reproductive health **(Boyd et al., 2000).**

Transition of Adulthood: A National Survey of Egyptian Adolescents focused on the health and education of the Egyptian adolescents, the economic roles of them and the marriage pattern **(Ibrahim et al., 2000).**

- El-**Tawila,** stated that today's youth comprise the largest cohort evr and will-ultimately determine the demographic profile of the 21st century. However, youth are still a marginalized social group **(El-Tawila, 2000).**

- **Lioyd** compared its results with a similar study in Kenya. It explored empirically the relationships between school quality in Egyptian preparatory schools and the likelihood of school dropout either during preparatory school or before the completion of secondary school **(Lioyd et al., 2001).**

- **El-Kogli and Al-Bassuni,** motivated by growing evidence of increasing unemployment among the young at a time when entrants into the labor force are also increasing at unprecedented rates **(El-Kogli and Al-Bassuni,2001).**

A Critical View of Previous Studies:

1- Most of the international literature on youth focused on the negative stereotyped images of youth such as premarital, risks of drugs and alcohol, violence and sexually transmitted infection (STIs) including HIV/AIDS.

2- In Egypt, studies on youth are scarce and usually focus on young men or without differentiation by gender.

I-4 Methodology of the study:

For (0,1) random varibles such as Y, it follows from basic statistic principles about expected values that E(Y), is equivalent to the probabili Pr (Y=1), so the formula for the logistic model can be written in a form th describes the probability of occurrence of one of the low possible outcom of Y, as follows:

$$Pr(Y=1) = \frac{1}{1 + \exp[-(\beta_o + \sum_{j=1}^{k} \beta_j X_j)]}$$

The logit form of the logistic model defined by the expression.

$$\text{Logit}[Pr(Y=1)] = \beta_o + \sum_{j=1}^{k} \beta_j X_j$$

Where

P : is the probability of event occurrence.

β_o: is the constant term.

B_1-B_k: are the regression coefficient of the independent variables.

X_1-Y_k: are the independent variables.

Y : is the dependent variable.

We can estimate an odds ratio: the general formula for an odds rat comparing two specifications of the set of rpedictors X_A and X_B is

$$\sum_{j=1}^{k} (X_{Aj} - X_{Bj}) B_j$$

$$OR_{XA} \text{ VS } X_B = e$$

The study used a descriptive analysis (percentages and contingenc coefficient) to examine the relationships between the adolescents' educatio and the socioeconomic and demographic factors.

To analyze factors affecting adolescents' education, a logistic regressio analysis has been used. It is the proper model to be used because the data binary (i.e., the variables codes as 1 or 0 for its two possible category).

I-5 Data source

Based on the national survey of Egyptian adolescent "Transitions Adulthood" (Ibrahim et al., 2000), a stepwise logistic regression has bee used. A total of 9,128 adolescents were interviewed (4,354 boys and 4,77 girls). They were in the age range 10-19 years. Also, a total of 6,21 responsible adults were interviewed (3,274 males and 2,939 females).

The following table shows the variables used in this research. There are two dependent variables with the same set of independent, variables.

Table (1): Variables used in the study

	Variables		Variables
	The independent variables:		
1	Urban/Rural	21	Transportation problems.
2	Region of residence	22	School status
3	Age (adolescents)	23	Using the school facilities.
4	Sex (adol.)		
5	Marital status (adol.)		
6	Work status (adol.)		**The dependent variables:**
7	HH is a f headed		
8	Educational status (R.A.)	1	Ever the student went to school or not.
9	Mixed school		
10	Gender norms (girls)		
11	Gender norms (boys)	2	The highest stage the adolescent reached in the school
12	Work load (adol.)		
13	Parents' attitudes towards education		
14	Occupation (R.A.)		
15	Standard of living.		
16	Adol. Attitudes towards school.		
17	Family support.		
18	Level of academic achievement		
19	Adolescent gets any help in edu.		
20	Teachers' support.		

I-6 Definitions of the variables

This study uses two dependent variables. These dependent variables are analyzing the educational status of the Egyptian adolescents. Also, the study used 113 independent variables. Most of them were gathered in a form of index to reduce their numbers. For example the standard of living index includes the ownerships of the durable goods and assets – i.e., a T.V., a radio, an electric machine, a fridge, a building and so on). While gender norm towards girls includes the attitudes towards girls education with respect to other aspects which influence girls' education such as early marriage.

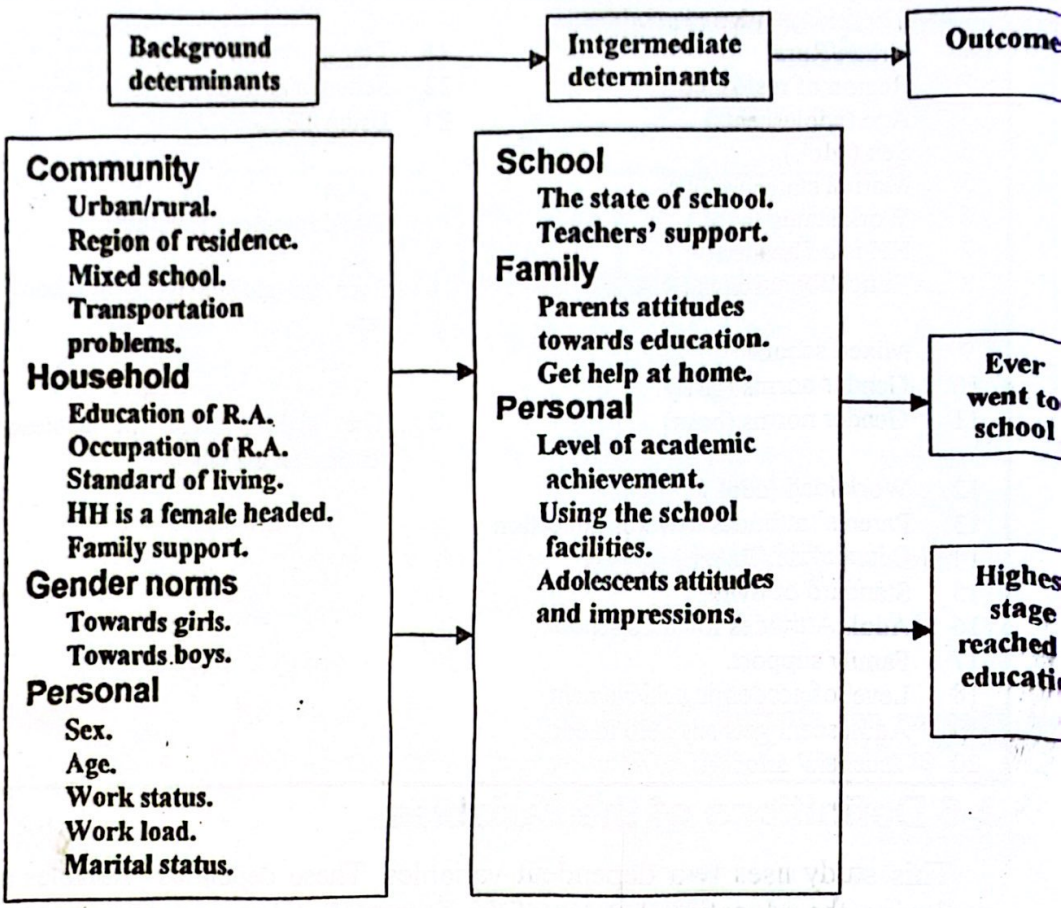
I-7 Conceptual Framework:

The conceptual framework of this study is based on the one used in the "School Environment in Egypt" by El-Tawila et al. (2000).

The framework presents the suggested factors which affect whether the adolescent went to school or not, and the highest stage reached in education

by the adolescent. These factors include the distant and intermediate determinants which are both affecting the outcomes.

Figure (1): The suggested theoretical framework for access to education



I-8 Organization of the research:

The research is divided into three sections. The first includes the introduction, research problem, objectives of the study, review of literature, methodology, data source, definition of the variables and the conceptional framework. The second section includes the current situation of the gender gap, the educational status of the Egyptian adolescent which is measured by two dependent variables; whether the adolescent goes to school or not and the highest stage of education the adolescent reached. The third section contains the conclusions and recommendations.

I I - Current situation of the gender gap

Educational access is lower in rural areas for both boys and girls, but particularly for girls. Table (2) is representing the number of girls enrolled per 100 boys in school by selected background characteristics. The gender gap is even larger among adolescents from low socioeconomic background and in rural Upper Egypt.

Yet, there is a gender gap in favor of girls in the preparatory stage in the urban Lower and Upper Egypt. The same is true in secondary level at urban Lower and Upper Egypt. This means that boys in these regions have higher dropout rates than girls at this stage of education. While in rural Upper Egypt the situation is reversed in favor of boys (Ibrahim et al. 2000).

Table (2): The number of girls envorolled/100 boys in school by selected background characteristics in Egypt.

Background characteristics	Primary	Preparatory	Secondary
Socioeconomic status			
Low	76	76	69
Middle	83	93	87
High	94	94	89
Urban govern orates	95	90	89
Urban lower Egypt	97	120	104
Rural lower Egypt	86	91	88
Urban Upper Egypt	85	108	101
Rural Upper Egypt	71	64	51
Total	84	88	82
Total boys	4,641	2,312	1,835
Total girls	3,912	2,032	1,512

Source: Ibrahim et al. Transitions to Adulthood. A National Survey of Egyptian Adolescents. Population Council. 2000.

Notes:

- The figures presented here are computed for all students enrolled in the general education system, vocational education as well as in Al-Azhar schools in all sample households.

The study uses two groups of the models to identify the factors which affect the educational status of the adolescent. Two dependent variables were used to achieve this; whether the adolescent goes to school or not and the highest stage of education the adolescent reached.

I I -1 Whether the adolescent goes to school or not:

The first dependent variable used by this study was whether the adolescent goes to school or not. The description of the varible as follows:

Ever the adolescent	Never	0
Went to school or not	Ever	1

- The relationships between going to school and the socioeconomi and demographic factors.

- The strength of the relationships are shown in (table 3). The stronge relationships are found between the dependent variables and using the studer the school facilities, the transportation problems, teachers' suppor adolescents' attiudes, school status and the parents' attitudes towar education.

Table (3): The strength of the relationship between the dependent variable (ever t adolescent went to school or not) and the independent variables.

	Variable	Contingency coefficient	Approx. sig.
1	The student use the school facilities	0.396	.000
2	Transportation problems	0.369	.000
3	Teachers' support.	0.367	.000
4	Adolescents' attitudes	0.357	.000
5	School status	0.353	.000
6	Parents' attitudes towards education	0.336	.000
7	Gender norms towards girls	0.263	.000
8	Mixed school	0.250	.000
9	The student get any help in education	0.236	.000
10	Educational status of R.A	0.213	.000
11	Region of residence	0.202	.000
12	Academic achievement	0.200	.000
13	Standard of living	0.197	.000
14	Sex of the adolescent	0.189	.000
15	Gender norms towards boys	0.184	.000
16	Urban/Rural	0.180	.000
17	Marital status of the adolescent	0.158	.000
18	Family support	0.134	.000
19	Work status and work load (adolescent)	0.125	.000
20	Age (adolescent)	0.026	.013
21	Occupational status of R.A	0.026	.013
22	HH is a female headed	0.014	.0167

- Factors affecting going the adolescent to school

The purpose of this study is to identify the factors which affect going th adolescent to school. Three models have been used; aggregated, male an female. Table (4) shows the common variables which have chosen by th three models. Where nine variables were used by the three model aggregated, female and male model. Seven variables are not included in th three models.

Table (4): Variables determining whether the adolescent goes to school or not.

	Variable	Female	Male	Total
1	Standard of living	√	√	√
2	Gender norms towards girls	√	√	√
3	Educational status of R.A	√	√	√
4	Urban/Rural	√	√	√
5	Age (adolescent)	√	√	√
6	Region (lower Egypt)	√	√	√
7	Region (Urban Gov.)	√	√	√
8	Use the school facilities	√	√	√
9	Teachers' support	√	√	√
10	Family support	√		√
11	Occupation of R.A.	√		√
12	Marital status (adolescent)	√		√
13	Work status (adolescent)	√		√
14	Gender norms towards boys		√	√
15	Sex (adolescent)			√
16	Transportation problems			√
17	Level of academic achievement	√		
18	School status			
19	Get any help in education			
20	Adolescents' attitudes			
21	Parents' attitudes			
22	Mixed school			
23	Work load			
24	HH is a female headed.			

- The Aggregated Model:

In table (5) we present the odds ratios of the logistic regression of whether the student is going to school or not. The adolescent is most likely going to school according to variables; teachers' support, using the school facilities and the non existance of transportation problems. However, these three variables are not significant. Also, the depndent variable is most likely to occure according to variables: gender norms towards girls and the education of the adult. These two variables are significant. In a second stage comes variables: gender norms towards boys, living in urban areas, living in urban governorates and living in Lower Egypt.

On the other hand, the variables which have the lowest probabilities are: occupation of R.A., sex of the adolescent and the marital status of the adolescents.

The percentage of corectly classified cases is 94.89%, which is a very good indication for the ability of the model to classify data according to whether the adolescent goes to school or not.

Table (5): Stepwise logistic regression results for determinants of whether the adolescent goes to school or not.

	Variables	B co-efficient	S.E standard error	P. value	Odds Ratio	Proba-bility
1	Family support	.6050	.1159	.0000	1.8313	.6468
2	Standard of living	.8118	.1185	.0000	2.2519	.6925
3	Occupation (R.A.)	-.3115	.1175	.0080	.7324	.4228
4	Gender norms towards boys	1.1329	.1515	.0000	3.1046	.7564
5	Gender norms towards girls	1.4867	.1217	.0000	4.4226	.8156
6	Education of R.A	1.4741	.1311	.0000	4.3673	.8137
7	Urban/Rural	1.1487	.1635	.0000	3.1542	.7593
8	Age (adolescent)	.9890	.1249	.0000	2.6887	.7290
9	Sex (adolescent)	-1.9919	.1453	.0000	.1364	.1200
10	Marital status (adolescent)	-.6416	.1561	.0000	.5264	.3449
11	Work status (adolescent)	.5782	.1243	.0000	1.7829	.6407
12	Region (Urban govern orates)	.9856	.2743	.0003	2.6794	.7282
13	Region (Lower Egypt)	.9156	.1186	.0000	2.4983	.7141
14	Using school facilities	8.4206	10.7514	.4335	4539.4437	.9998
15	Teachers' support	9.0079	11.3633	.4279	8167.5255	.9999
16	Transportation problems	8.2287	10.7241	.4429	3747.0388	.9997
17	School status			.2952		
18	Get help			.2622		
19	Academic achievement			.3061		
20	Adolescents' attitudes			.2901		
21	Parents' attitudes			.2266		
22	Mixed schools			.7454		
23	Work load (adolescent)			.3175		
24	HH is a female headed.			.6773		
	Constant	-1.9065	.1958	.0000		

Percentage of correctly classified cases is 94.89%.

- The Female Model:

In table (6) we present the odds ratios of the female model. The adolescent girl is most likely going to school according to variables: teachers' support and using the school facilities. However, these variables are not significant. Also, the dependent variable is most likely to occure according to variables: gender norms towards girls, education of the adult and the residence in urban areas. These variables are significant. In a second stage comes variables: living in urban governorates and in Lower Egypt.

On the other hand, the variables which have the lowest probabilities are: the occupation of R.A and marital status of the adolescents.

The percentage of correctly classified cases is, 93.19%, which is very good indication for the ability of the model to classify data.

Table (6): Stepwise logistic regression results for determinants of whether the adolescent girl goes to school or not.

	Variables	B co-efficient	S.E standard error	P. value	Odds Ratio	Proba-bility
1	Family support	.7514	.1392	.0000	2.1199	.6795
2	Standard of living	.8272	.1410	.0000	2.2869	.6958
3	Occupation of R.A.	-.3718	.1433	.0095	.6895	.4081
4	Gender norms towards girls	2.0861	.1479	.0000	8.0538	.8895
5	Education of R.A.	1.7178	.1532	.0000	5.5721	.8478
6	Urban/Rural	1.4758	.2000	.0000	4.3745	.8139
7	Age (adolescent)	.8404	.1550	.0000	2.3173	.6985
8	Marital status (adolescent)	-.7302	.1722	.0000	.4818	.3251
9	Work status (adolescent)	.5833	.1371	.0000	1.7919	.6418
10	Region (Urban govern orates)	.9701	.3213	.0025	2.6383	.7251
11	Region (Lower Egypt)	1.0240	.1442	.0000	2.7843	.7357
12	Using school facilities	9.1910	9.9048	.3534	9808.8487	.9998
13	Teachers' support	9.3402	10.1496	.3574	11386.584	.9999
14	Academic achievement	-9.0207	15.2734	.5548	.0001	.00009
15	School status			.5001		
16	Transportation problems			.3327		
17	Get any help			.5847		
18	Adolescents' attitudes			.3871		
19	Parents' attitudes			.3833		
20	Gender norms towards boys			.1540		
21	Mixed schools			.4346		
22	Work load (adolescent)			.4023		
23	HH is a female headed.			.0572		
	Constant	5.7081	15.2733	.7086		

Percentage of correctly classified cases is 93.19%.

- The Male Model:

In table (7) we present the odds ratios of the male model. The adolescent is most likely going to school according to factors; use the school facilities and teachers support. These two variables are not significant. Also, the dependent variable is most likely to occur according to variable: gender norms towards boys, education of R.A., standard of living and age of the adolescents. Those variables are significant.

The percentage of correctly classified cases is 97.24%, which is a very good indication for the ability of the model to classify data.

Table (7): Stepwise logistic regression results for determinants of whether the adolescent boy goes to school or not.

	Variables	B co-efficient	S.E standard error	P. value	Odds Ratio	Proba-bility
1	Standard of living	.8993	.2421	.0002	2.4580	.7108
2	Gender norms towards boys	2.2647	.2235	.0000	9.6283	.9059
3	Gender norms towards girls	.4447	.2251	.0482	1.5600	.6094
4	Education of R.A	1.2217	.2733	.0000	3.3928	.7723
5	Urban/Rural	.5817	.2968	.0500	1.7891	.6415
6	Age (adolescent)	1.2851	.2162	.0000	3.6152	.7833
7	Region (Lower Egypt)	.7247	.2260	.0013	2.0641	.6736
8	Use the school facilities	10.3316	16.3861	.5344	30687.991	.99996
9	Teachers' support	9.0618	17.2177	.5987	8620.0160	.99996
10	Region (Urban govern orates)	.9494	.5273	.0718	2.5841	.7209
11	School status			.3213		
12	Transportation problems			.0320		
13	Get any help			.3538		
14	Academic achievement			.0885		
15	Adolescents' attitudes			.2147		
16	Family support			.1495		
17	Occupation of R.A.			.5333		
18	Parents' attitudes			.0851		
19	Mixed school			.1010		
20	Work load (adolescent)			.1330		
21	Work status (adolescent)			.0848		
22	Marital status (adolescent)			.7009		
23	HH is a female headed.			.2536		
	Constant	-1.8828	.2574	.0000		

Percentage of correctly classified cases is 97.24%.

I I -2 The Highest stage of education the adolescent reached:

Another dependent variable has been chosen to reflect the educational status of the adolescent. This dependent variable is the highest stage of education the adolescent reached. The description of the variable as follow:

The highest stage	Low	0
the adolescent reached	general primary	
in the school	+ Azhar primary	
	+ general preparatory	
	+ Azhar preparatory.	
	High	1
	Vocational secondary	
	+ general secondary	
	+ Azhar Secondary	
	+ above intermediate	
	+ University	

- **The relationships between the highest stage reached in education and the socioeconomic and demographic factors:**

The strength of the relationships are shown in table (8).The strongest relationships are found between the dependent variable and the age of the student, which is logic because the older the adolescent is the more educated he will be. Then at a second stage comes variables: mixed school and family support. The rest of the varaibles have weak relationships with the highest level of education.

Table (8): The strength of the relationship between the highest level of education the adolescent can get and the independent variables.

	Variable	Contingency coefficient	Approx. sig.
1	Age of the adolescent	0.521	.000
2	Mixed school	0.238	.000
3	Family support	0.201	.000
4	Region of residence	0.188	.000
5	Transportation problems	0.159	.000
6	Urban/Rural	0.156	.000
7	Standard of living	0.148	.000
8	Gender norms towards girls	0.127	.000
9	Educational status of R.A	0.115	.000
10	Level of academic achievement	0.107	.000
11	Gender norms towards boys	0.086	.000
12	The school status	0.052	.000
13	Get any help in education	0.044	.000
14	Work status and work load (adolescent)	0.031	.004
15	Teachers' support	0.026	.013
16	Sex (adolescent)	0.024	.022
17	HH is a female headed	0.023	.028
18	Use the school facilities	0.021	.041
19	Parents' attitudes	0.020	.059
20	Occupational status of R.A	0.019	.067
21	Marital status (adolescent)	0.017	.096
22	Adolescents' attitudes	0.001	.925

- **Factors affecting the highest stage of education the adolescent reached:**

Three models have been used: aggregated, female and male model. The common factors are shown in Table (9). Thirteen variables are common between the three models: aggregated, female and male model. Only one variable is not included in the three models.

Table (9): Variables determining the highest stage reached in education by the adolescent.

	Variable	Female	Male	Total
1	The state of current school.	√	√	√
2	Teachers' support.	√	√	√
3	Transportation problems.	√	√	√
4	The student gets any help in education	√	√	√
5	Family support.	√	√	√
6	Standard of living	√	√	√
7	Parents' attitudes	√	√	√
8	Workload (adolescent)	√	√	√
9	Gender norms towards girls.	√	√	√
10	Educational status of R.A	√	√	√
11	Mixed school	√	√	√
12	Urban/Rural	√	√	√
13	Age (adolescent)	√	√	√
14	The student uses the school facilities		√	√
15	Level of academic achievement		√	√
16	Gender norms towards boys		√	√
17	Adolescents' attitudes	√		√
18	Marital status (adolescent)	√		√
19	Region (urban govern orates)	√		√
20	Region (Lower Egypt)	√		√
21	Occupation of R.A	√		
22	Work status (adolescent)	√		
23	Sex (adolescent)			√
24	HH is a female headed.			

-The Aggregated Model:

In table (10) we present the odds ratios of the aggregated model. The adolescent is most likely reaching the high stage according to variables: residence in the lower Egypt (not significant) and the age of the adolescent (significant). The odds ratio for age variable has the highest value which is a logic result because the older the adolescent is, the more education he/she will get. On a second stage comes the variable school status.

On the other hand, the variables which have the lowest probabilitis are: sex of the adolescent, academic achievemen, marital status of the adolescent and the transportation problems.

The percentage of correctly classified cases is 89.03% which is a very good indication for the ability of the model to classify data.

Table (10): Stepwise logistic regression results for determinants of the highest stage reached in education by the adolescent.

	Variables	B co-efficient	S.E standard error	P. value	Odds Ratio	Proba-bility
1	Use the school facilities	.6745	.1637	.0000	1.9630	.6625
2	School status	1.2712	.1469	.0000	3.5653	.7809
3	Teachers' support	.8272	.1480	.0000	2.2869	.6959
4	Transportation problems	-1.2540	.1343	.0000	.2854	.2220
5	Get any help	.4333	.1042	.0000	1.5424	.6067
6	Academci achievement	-.2449	.1034	.0178	.7828	.4391
7	Adolescents' attitudes	.3519	.1397	.0118	1.4218	.5871
8	Family support	.7256	.0832	.0000	2.0660	.6738
9	Standard of living	.7663	.0778	.000	2.1517	.6827
10	Parents' attitudes	.5080	.1253	.0001	1.6619	.6243
11	Work load	.8048	.0927	.0000	2.2363	.6910
12	Gender norms towards boys	.3238	.1298	.0126	1.3823	.5802
13	Gender norms towards girls	.6358	.0822	.0000	1.8885	.6538
14	Education of R.A	.5788	.0776	.0000	1.7839	.6408
15	Mixed school	.7238	.1046	.0000	2.0623	.6734
16	Urban/Rural	.2993	.0968	.0020	1.3489	.5743
17	Age (adolescent)	4.7796	.1132	.0000	119.0574	.9917
18	Sex (adolescent)	-.2277	.0806	.0047	.7964	.4433
19	Marital status (adolescent)	-.6381	.1247	.0000	.5282	.3457
20	Region (urban gov.)	.3701	.1147	.0013	1.4478	.5915
21	Region (Lower Egypt)	.1535	.0838	.0670	1.1660	.9991
22	Occupation of R.A			.0686		
23	Work status (adolescent)			.4395		
24	HH is a female headed			.8356		
	Constant	-8.5268	.2912	.0000		

Percentage of correctly classified cases is 89.03%.

The Female Model:

In table (11) we present the odds ratios for the female model. Age and school status are the variables which have the highest probabilities that the dependent variable is most likely to occur, which is reaching a higher stage of education by the adolescent girl. On the second stage comes variables: teachers support and standard of living.

On the other hand, the variables which have the lowest probabilities are: occupation of the adult, marital status of the adolescent and the transportation problems.

The percentage of correctly classified cases is 89.42% which is a very good indication for the ability of the model to classify data.

Table (11): Stepwise logistic regression results for determinants of the highest stage reached in education by the adolescent girl.

	Variables	B co-efficient	S.E standard error	P. value	Odds Ratio	Proba-bility
1	School status	1.9382	.2346	.0000	6.9465	.8742
2	Teachers' support	.9998	.2352	.0000	2.7177	.7310
3	Transportation problems	-1.1984	.1951	.0000	.3017	.2318
4	Get any help	.5267	.1471	.0003	1.6933	.6287
5	Academic attitudes	.5891	.2076	.0045	1.8023	.6431
6	Family support	.7108	.1108	.0000	2.0356	.6706
7	Standard of living	.8976	.1111	.0000	2.4522	.7103
8	Occupation of R.A	-.2244	.1081	.0379	.7990	.4441
9	Parents' attitudes	.4084	.1733	.0184	1.5045	.6007
10	Work load (adolescent)	.6035	.2236	.0070	1.8285	.6464
11	Gender norms towards girls	.7740	.1158	.0000	2.1684	.6844
12	Education of R.A	.6851	.1121	.0000	1.9840	.6649
13	Mixed school	.6443	.1539	.0000	1.9047	.6557
14	Urban/Rural	.3249	.1361	.0170	1.3839	.5805
15	Age (adolescent)	4.8712	.1605	.0000	130.4718	.9924
16	Marital status (adolescent)	-.6322	.1409	.0000	.5314	.3470
17	Work status (adolescent)	.3744	.1711	.0286	1.4541	.5925
18	Region (Urban gov.)	.7243	.1605	.0000	2.0634	.6736
19	Region (Lower Egypt)	.5128	.1203	.0000	1.6699	.6254
20	Use the school facilities			.7057		
21	Academic achievement			.4061		
22	Gender norms (boys)			.2711		
23	HH is a female headed			.7995		
	Constant	-9.3836	.3800	.0000		

Percentage of correctly classified cases is 89.42%.

-The Male Model:

Table (12) presents the odds ratios of the male model. Age and using the school facilities are the variables where the dependent variable is most likely to occur according to them. On a second stage comes variables: workload (adolescent) and mixed school.

On the other hand, the variables which have the lowest probabilities are: academic achievement and transpotation problems.

The percentage of correctly classified cases is 89.13% which is a very good indication for the ability of the model to classify data according to the highest level of education reached by the adolescent boy.

Table (12): Stepwise logistic regression results for determinants of the highest stage reached in education by the adolescent boy.

	Variables	B co-efficient	S.E standard error	P. value	Odds Ratio	Proba-bility
1	Use the school facilities	1.4830	.2461	.0000	4.4061	.8150
2	School status	.7030	.1881	.0002	2.0199	.6688
3	Teachers' support	.5861	.1880	.0018	1.7970	.6425
4	Transportation problems	-1.3980	.1838	.0000	.2471	.1981
5	Get any help	.3579	.1462	.0144	1.4303	.5885
6	Academic achievement	-.2859	.1418	.0437	.7513	.4290
7	Family support	.7022	.1302	.0000	2.0182	.6687
8	Standard of living	.6256	.1109	.0000	1.8693	.6515
9	Parents' attitudes	.6426	.1787	.0003	1.9014	.6553
10	Work load (adolescent)	.8646	.1170	.0000	2.3740	.7036
11	Gender norms (boys)	.4274	.1742	.0142	1.5333	.6052
12	Gender norms girls	.5209	.1162	.0000	1.6835	.6273
13	Education of R.A	.5266	.1125	.0000	1.6932	.6287
14	Mixed school	.8562	.1454	.0000	2.3542	.7019
15	Urban/Rural	.3208	.1149	.0053	1.3782	.5795
16	Age (adolescent)	4.7128	.1568	.0000	111.3648	.9911
17	Adolescents' attitudes	-		.7748		
18	Occupation of R.A			.9196		
19	Work status (adolescent)			.2249		
20	Region (urban gov.)			.3798		
21	Region (Lower Egypt)			.0727		
22	Marital status (adolescent)			.9056		
23	HH is a female headed			.8586		
	Constant	-8.1381	.3932	.0000		

Percentage of correctly classified cases is 89.13%.

III Conclusions and Recommendations

III.1- Conclusions

Although, over the last 10-15 years, accessibility to the basic education system in Egypt has significantly increased, the gender gap in education for some groups namely the poor and girls in rural Upper Egypt is still existing.

On studying the factors which affect the occurrence of the event (going to school) it seems that both girls and boys are most likely go to school according to gender norms towards girls and boys respectively (odds ratios are 8.0538 and 9.6283 respectively). The odds ratios of going the girls to school are significantly affected by the education of the adult and living in urban areas. Although, this is an expected results we do not find the same strong effect for boys (3.3928 and 1.7891 respectively). On the other hand, age has a stronger effect on boys than girls (3.6152 and 2.3173 respectively).

While studying the factors which affect the occurrence of the event (the highest stage of education reached by the adolescent) suggests that both girls and boys are most likely reach a higher stage of education according to their age (odds ratios are 130.4718 and 111.3648 for girls and boys respectively). The odds ratios of reaching the girl a higher stage of education are significantly affected by the school status. We do not see the same strong effect for boys (6.9465 and 2.0199 for girls and boys respectively). On the other hand, the odds of reaching the boy a higher stage of education are significantly affected by using the boy the school facilities (4.4061), while this variable in not in the female model.

These findings suggest that all the inputs of the educational process have influenced the education of the adolescents.

First, includes the family support (such as treating both girls and boys equally), the household standard of living (such as the ownerships of durable goods and assets), the parents' attitudes (such as reaction to good or bad grades), the educational status of the respondant adult and gender norms mainly towards girls (such as the important of girls' education and attitudes towards marriage for young girls).

Second, includes the school either by its material resources (class size, desks, lighting, ventilation, availability of library, labs and playground) or its human resources (administration or teachers).

Third, includes the students and their age, using the school facilities (such as labs, library and so on), their attitudes towards education (such as their main object in life or liking their schools) and if they are getting any help in education (such as having private lessons or using study guides).

Finally, it includes the region of residence either in rural or in urban areas.

III.2- Recommendations

Collaboration among all the inputs of the educational process is necessary for serious improvement to be achieved. These recommendations are:

1- Prohibiting dropping out of schools especially for girls-to close the gender gap in education- in rural areas and from low socioeconomic background.
2- Developing the Egyptian schools especially its material resources which include classes and libaries, labs, clinics and so on.
3- Increasing the number of schools especially in rural areas because dropout rates for girls in rural areas especially rural Upper Egypt are the worst.
4- Developing the human resources of the education by training programs.
5- Urging civil society to participate in establishing new schools and developing the old ones.

6- Reaching adolescent who have dropped out of school by establishing literary classes. These literacy classes have to be integrated into activities with wider appeal to youth including income generation, sports and training skills.

7- Supporting and developing the vocational secondary schools (commercial, agriculture, industrial) in order to qualify adolescents to join occupations which require high skills that the educational system did not provide.

8- Improving the school's curriculum to involve changing some bad norms such as early marriage.

9- Information messages have a great influence either on adolescents or on families, through television, radio and the press. This can be done by highlighting the adolescents problems and ways of dealing with them. Also, media can emphasize on some important issues such as dropping out of schools, the early marriage and gender gap in education and try to find solutions to these problems.

References

Al-Bassusi, Nagah, (2001): "NGOs Serving Youth in Egypt: A directory", Cairo: Population Council.

Barnett, Barbara, (1997): "Gender Norms Affect Adolessents", NETWORK, Spring, 1997

Boyd, Anne, (2000): "The World's Youth 2000", The Population Reference Bureau, Washington D.C., USA.

Cairo Demographic Center (2003): "Youth in Egypt: Demographic, social and Economic Aspects", Number 4.

El-Kogali, Safaa El-Tayeb and Nagah Hassan Al-Bassusi,(2001): Youth Livelihood Opportunities in Egypt The Population Council.

El-Tawila, Sahar (2000): "Youth in the Population Agenda: Concepts and and Methodologies", Cairo: Population Council.

El-Tawila, Sahar et al. (2000): "The School Environment in Egypt: A situation analysis of public preparatory schools", Cairo: Population Council.

Ibrahim, Barbara et al. (2000): "Transition to Adulthood: A National Survey of Egyptian Adolescents", Cairo: Population Council.

Jacobson, Jodi, (1994) : Family, Gender and Population Policy : View from the Middle East", The Population Council.

Kishor, Sunita and Katherine Neitzel, (1996): "The Status of Women: Indicators for Twenty-five countries, Macro International Inc. Calverton, Maryland USA.

Lioyd, Cynthia B. et al. (2001): "Determinants of Educational Attainment Among Adolescents in Egypt: Does School Quality Make a Difference?", Cairo: Population Council. No.150.

Mensch, Barbara S. and Cynthia B. Lloyd, (1997): "Gender Differences in the School Experiences of Adolescents in Low-Income Countries: The Case of Konya", Cairo: Population Council, No.95.

Mensch, Barbara S. et al. (2000): "Socialization to Gender Roles and Marriage Among Egyptian Adolescents", Cairo: Population Council, No.140.

Naguib, Nora Guhi and Cynthia B. Lloyd, (1994): "Gender In equalities and Demographic Behavior", Egypt, New York: The Population Council.

Ragheb, Seham S. et al. (1998): "Family Size and Offspring: Gender Equity", Final Report, Faculty of Nursing, University of Alexandria.

UNDP, (1998): "Human Development Report 1998", United Nations.

UNFPA, (1999) : The state of World Population, 6 Billion: A Time for Choices", United Nations Population Fund, New York, U.S.A.

UNFPA, (2000): "Population Issues, Briefing Kit 2001", United Nations Population Fund.

UNFPA, (2000): The State of World Population, "Lives Together, Worlds Apart: Men and Women in a time of change", United Nations Population Fund.

UNIFEM, (2000): "Targets and Indicators Selections from Progress of the World's Women", United Nationsl Development Fund for Women.