

Main Factors affecting Chronically and Transient Poverty in Egypt between 1998- 2006

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Abstract:

Poverty dynamics analysis provides useful insights into what determines movements in and out of poverty and why some households remain poor. The main purpose of this study is to investigate the dynamics of households' movements in and out of poverty in Egypt and to assess the main factors affecting these movements between 1998 and 2006. The study depends on 1998 and 2006 Egypt Labor Market Panel Surveys.

The results of the paper show that there are 17.1% of individuals enter into poverty or exit from it (transiently poor) during the period (1998- 2006). There are 71% of individuals are never poor while 11.8% are chronically poor. The main factors affecting the dynamics of poverty are the education of household heads, regions, household size, average persons per room, owning household enterprise, household share of employed persons, and of government and public sectors, share of children and adults in the household.

Key Words:

Panel data, Dynamics of income poverty, Relative chronically poor and transient poor, Transition Matrix

أهم العوامل المؤثرة في الفقر المزمن والفقر المؤقت في مصر

خلال الفترة 1998 - 2006

الملخص

يتم تحليل ديناميكيات الفقر روى مفيدة في تحديد أسباب الدخول والخروج من الفقر، ولماذا تظل بعض الأسر فقيرة. تهدف هذه الدراسة إلى دراسة ديناميكيات انتقال الأسر من وإلى الفقر، وتحديد أهم العوامل التي تؤثر على دخول وخروج الأسر من الفقر في مصر خلال الفترة (1998- 2006). تعتمد الدراسة على بيانات مسوح سوق العمل المصري لعام 1998 و2006.

أهم النتائج التي توصلت إليها الدراسة هي أن 17.1% من الأفراد دخلوا إلى الفقر أو خرجوا منه (فقر عابر أو مؤقت) خلال الفترة (1998-2006)، وهناك 71% من الأفراد هم غير فقراء باستمرار، بينما 11.8% هم فقراء فقير مزمن (مستمر). ومن العوامل الرئيسية التي تؤثر على ديناميكيات الفقر هي تعليم رب الأسرة، مكان الإقامة، حجم الأسرة، معدل النزاح في الغرفة، امتلاك الأسرة للمشروعات، نسبة العاملين في الأسرة، نسبة العاملين في القطاع الحكومي والقطاع العام ونسبة الأطفال والبالغين في الأسرة.

الكلمات الدالة: ديناميكيات فقر الدخل - الفقر المزمن - الفقر العابر (المؤقت) - مصفوفة الانتقالات

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1. Introduction

In most studies, poverty analysis tends to focus on poverty at one point in time or on poverty trends. However, there is a very little interest in analyzing poverty dynamics as investigating the welfare movements of a set of households or individuals over time. This is largely due to scarcity of the type of survey data required for this kind of analysis, which is called panel data.

Poverty dynamics analysis provides useful insights into what determines movements in and out of poverty and why some households remain poor. When using static analysis of poverty based on cross sectional data, the poor can be differentiated on the basis of how far their consumption or income lies below the poverty line. However using poverty dynamics provide an additional dimension to the nature of poverty and can help policy makers to put the suitable policies and programs for alleviating poverty.

The main purpose of this study is to investigate the dynamics of Egyptians households' movements in and out of poverty and to assess the main factors affecting these movements between 1998 and 2006. Therefore, the study focuses on two basic questions about poverty:

1. How can we classify poor people into chronically and transiently poor?
2. What are the main factors that increase households' likelihood of being chronically poor, entering into poverty and exiting from it?

➤ Poverty Definition

This study depends on money metric approach to define poverty. This approach assumes that individuals and households are classified as poor if their income or consumption falls below a certain threshold (defined as a minimum) which is socially acceptable level of well-being by a population group. This threshold is usually called the "poverty line", where the relative poverty line is used in this study.

Relative poverty line based on approach that consider the welfare position of each household in relation to the welfare position of other households belonging to the same community. The current study depends on the relative poverty (using the income position method), which defines households as being "poor" those who fall below a given quintile (usually the tenth or the twentieth) of the income distribution ranked in ascending order (Giovanni L., and Liberati P., [2]). The poorest 20% of the population is considered the poor population¹.

2 Literature Review

Analysis of poverty and income distribution in Egypt goes back to 1977 and has increased in recent years. However the studies of poverty are mainly depending on cross sectional data, while very few studies in Egypt used Panel data (Arranianous and Rashed, [9]).

The International Food Policy Research Institute (IFPRI) analyzed poverty in Egypt using panel data of only 347 households. It is the first panel survey study of poverty dynamics in Egypt, in North Africa at all. The analysis depends on a panel data set from eight governorates. The 347 households were first surveyed in early 1997 and they were surveyed again in early 1999. The study depends on the regression methods to identify the factors that explain total, chronic and

¹ The poorest 20% is used in this study since the percentage of poor people in Egypt reached 16.7% and 19.6% according to Household Income, Expenditure and Consumption surveys data in 1999-2000 and in 2004-2005 respectively.

transitory poverty. The results show that the main determinants affecting dynamics of poverty were the average years of schooling of adult household members, the value of land and livestock, the number of children under age 15, household size, the location of residence, and employment activity (Haddad and Ahmed, [10]).

The Ministry of Social Development, Central Agency of Public Mobilization and Statistics (CAPMAS) and the World Bank implemented a joint study on the Household Income, Expenditure and Consumption Panel Survey (HIECPS) to trace household consumption and living standards over 2005-2008. The data used in such study relies on only a one-month sample of the full HIECS 2004/05 which includes 3552 households. One of the main findings of this study was that poverty in Egypt equally split between the chronically poor and those who go in and out of poverty. Ten percent of the population (or one-half of all poor) in Egypt remained in "chronic poverty" over 2005-2008. At the same time, the other half of the poor (12% of the population) moved out of poverty. This positive move was counterbalanced by an opposite flow on a smaller scale: that is, of non-poor falling into poverty (9% of the population). Also, the study showed that the chronic poverty is concentrated in Upper Egypt (23 percent) and just 3% in Metropolitan areas; on the other hand, 87% of the Metropolitan population stayed away from poverty (World Bank, [11]).

3. Material and Methods

This study depends basically on the Labor Market Surveys (LMSs) and the Household Income, Expenditure and Consumption surveys (HIECs). Both types of surveys include information about the household members' demographic and socioeconomic characteristics, housing conditions, ownership of durables, access to basic services and the neighborhood infrastructure.

The (HIECs) are household budget surveys; these budget surveys are generally considered the major source of information on household income and expenditure in Egypt (Roushdy and Assad, [4]).

The questionnaire of the two waves of the 1998 Egypt Labor Market Survey (ELMS 98) and the 2006 Egypt Labor Market Panel Survey (ELMPS 06) was designed to facilitate the comparison between the two waves. The ELMPS 06 is the second round of a periodic longitudinal survey that tracks the labor market and demographic characteristics of the households and individuals interviewed in the 1998 (this study used nationally representative sample of 3684 households).

Both ELMS do not have any information on expenditure or consumption level and hence cannot be used to determine the income poverty level of households. On the other hand, HIECs involve detailed data on household consumption and characteristics of its members but it does not track households over time and hence dynamics of poverty cannot be traced. Merging information of these two types of surveys, (Assad and Roushdy, [5]), is necessary to study the dynamics of income poverty over the period 1998-2006¹.

➤ **Methods**

Factor analysis is used to construct a composite wealth index utilizing all durable goods owned by the household. Households are classified equally into five quintiles according to the values of the factor scores. The first quintile represents the poorest households from wealth perspective.

Descriptive Analysis is used to present the relationship between the dynamics of poverty and the household's characteristics.

¹ Assaad and Roushdy, (2006) estimated the per capita consumption for LMS surveys using multiple linear regression models derived from HIECS. The linear regression technique combines the (HIECS 99) with the (ELMS 98), and (HIECS 04) with the (ELMPS 06) to estimate per capita consumption for the LMS surveys (for more details, see Assaad and Roushdy, 2006).

Binary logistic model is used to assess the main factors affecting the dynamics of poverty, depending on a set of explanatory variables, i.e.; age, gender, educational attainment,...etc. Several studies have used the Logistic Model to study poverty dynamics (Stevens, [7]) and (Iceland, [8]).

This study used two models: the first model is concerned by the chronic poverty and exit from poverty, while the second is concerned by the poverty entries.

The First Model: The Chronic Poverty and Exit Model:

In this model the population is the households who were poor in year 1998. The probability of being chronically poor for household i at time t can be written as:

$$P_{it} = \frac{1}{1 + e^{-y_{it}}}$$

Where, $y_{it} = a_i + \delta^*T_{it} + \beta'X_{it}$

y : is the dependent variable that takes two values; the value *one* if the household is chronically poor and the value *zero* if the household exits from poverty.

X : represents the vector of control variables which are the characteristics of the household head, socioeconomic characteristics, dwelling characteristics and wealth index.

T : represents the vector of socioeconomic changes during the period 1998-2006 (e.g., share of employed and unemployed persons, share of government and public sectors employees, share of illiterate persons in the household, change in the household position in wealth index,...etc.).

The resulted odds ratio of this model gives the likelihood of being chronically poor when the independent variable changes by one unit after controlling all other variables (Chronic poverty Odds Ratio). Additionally, the reversed odds ratio of chronically poor household (1/odds ratio)

gives the likelihood of exiting poverty when the independent variable changes by one unit after controlling all other variables (Exits poverty Odds Ratio).

The Second Model: The Model for Relative Poverty Entries

In this model the population is the households who were non poor in year 1998. The probability of entering poverty for household i at time t can be written as:

$$P_{it} = \frac{1}{1 + e^{-y_{it}}}$$

Where, $y_{it} = \alpha_i + \delta T_{it} + \beta' X_{it}$

y : is the dependent variable that takes two values; the value *one* if the household enters poverty and the value *zero* if the household remains non poor, and same definitions of X and T are used as previously mentioned.

4. Results

4.1 The Transition Matrix of the Egyptian individuals between 1998 and 2006

The transition matrix presented in Table (1) shows the dynamics of individuals between 1998 and 2006 regarding their relative poverty status. Individuals could be categorized into three distinct groups: first group "Chronically Poor" where individuals were poor in the two years (always poor), second group "Transiently Poor" where individuals were poor in one of the two years (sometimes poor), and third group where individuals were never poor in the two years.

It is clear that 11.8% of all individuals are always poor, 17.1% of individuals were sometimes poor - 8.3% of individuals are moved out of poverty while 8.8% fell into poverty. Finally, 71% of Egyptian individuals are "never poor" in both 1998 and 2006 surveys.

Table (1)

Transition matrix for individuals' poverty status between 1998 and 2006

Poverty status for individual 1998	Poverty status for individuals in 2006		
	Poor	Non poor	Total
Row percent			
Poor	58.7	41.3	100
Non poor	11.1	88.9	100
Total	20.7	79.3	100
Column percent			
Poor	57.2	10.5	20.1
Non poor	42.8	89.5	79.9
Total	100	100	100
Total percent			
Poor	11.8	8.3	20.1
Non poor	8.8	71.0	79.9
Total	20.7	79.3	100

4.2 Relationship between the dynamics of Poverty and Household's Characteristics

4.2.1 Characteristics of household' heads

Table (2) shows the relationship between the characteristics of households' heads and the dynamics of relative poverty. The Table shows that two thirds of chronically poor individuals (67%) live with illiterate household heads, while this percentage decreased to only 24% among never poor individuals. On the other hand, almost half of never poor individuals live with household heads with secondary education and above, compared to 7% among chronically poor individuals.

The majority of never poor individuals (75%) live with household heads with permanent work while this percentage decreased among chronically poor individuals to reach 64%. Additionally, the sector of work of household heads has a great impact on the dynamics of poverty among individuals.

Table (2)
Distribution of individuals by head's characteristics and dynamics of poverty

Variables	Chronic poor	Into poverty	Out of poverty	Never poor	All
The age groups of household heads					
Less than or equal 30	4.2	5.6	12.3	7.7	7.4
(31-40)	19.2	23.6	16.1	19.0	19.2
(41-50)	32.8	27.5	27.9	27.2	27.9
(51-60)	27.8	22.8	27.2	26.7	26.5
(61-64)	4.2	6.3	5.8	6.0	5.8
Greater than or equal 65	11.8	14.2	10.7	13.5	13.2
Sex of household heads					
Male Headed households	85.6	84.2	85.7	85.1	85.1
Marital status of household heads					
Married	87.6	84.2	85.7	84.0	84.6
Other (never married, divorced, widowed)	12.4	15.8	14.3	16.0	15.4
Educational status of household heads					
Illiterate	66.9	50.6	45.1	24.0	33.2
Literate without any certificate	12.2	12.1	15.6	9.4	10.4
Basic education	14.4	17.8	18.4	17.1	16.9
Secondary	6.1	18.1	17.2	29.6	24.8
University & above	0.5	1.4	3.6	19.9	14.7
Employment status of household heads					
Employed	72.4	67.1	79.5	70.3	70.9
Unemployed	1.4	1.2	0.4	0.9	0.9
Out of labor force	26.2	31.8	20.1	28.8	28.2
Stability of work for household heads					
Permanent	63.4	71.5	68.8	75.2	72.9
Temporary, Casual & Seasonal	36.6	28.5	31.2	24.8	27.1
Sector of work for household heads					
Private	93.5	82.5	88.5	63.3	70.7
Government & Public	6.5	16.5	11.3	34.8	27.9
Others	0.0	1.0	0.2	1.9	1.4
Total	100	100	100	100	100

4.2.2 Social characteristics of household's members

Data presented in Table (3) shows that the education status of household members has a great impact on the dynamics of poverty, where the percentage of illiterate persons in the chronically poor households reached 31.6% while this percentage decreased to only 14% among never poor households.

The dynamics of poverty is affected significantly with the household size, where the average household size reached 8 members among chronically poor households, while decreased significantly to 4.6 members among never poor households.

Table (3) reveals the significant relationship between regions and the dynamic of relative poverty, where the chronic poverty is concentrated in Upper Egypt, while never poor people lived in Metropolitan.

4.2.3 Dwelling characteristics

Data presented in Table (4) shows that there is a significant relationship between the floor area and dynamics of relative poverty, where it is smaller among the chronically poor households (12.1 m²/person) compared to the households who entered into poverty (12.3 m²/person), and reached its highest value among never poor households (23.4 m²/person).

Chronically poor households are more likely to live in crowdedness houses more than never poor households (2.4 persons per room vs. 1.2 persons per room). Most chronically poor households owned their dwellings and live in rural areas. This is due to the dominant pattern in rural areas where most of households own their houses.

Almost one fifth of chronically poor households live in dwellings connected to sewerage system while this percentage increased among never poor households (76%). Additionally, chronically poor households are less likely to use waste collector than never poor households and the

ownership percentages of most of durable goods are higher among never poor households compared to chronic poor households.

Table (3)
Distribution of individuals by characteristics and dynamics of poverty

Variables	Chronic poor	Into poverty	Out of poverty	Never poor	All
The age composition in households					
Percentage of children of age (0-5) years in household	16.1	22.0	14.2	14.7	15.5
Percentage of children of age (6-14) years in household	25.5	18.2	12.3	12.5	14.5
Percentage of adult male (15-64) years in household	27.9	26.2	36.5	33.6	32.5
Percentage of adult female (15-64) years in household	27.7	29.1	33.5	33.8	32.6
Percentage of people of age 65 + in household	2.8	4.4	3.5	5.4	4.8
Total	100	100	100	100	100
Education characteristics of household members					
Percentage of illiterate persons in household	31.6	26.2	27.3	14.1	18.3
Percentage of University graduates persons and above in household	0.6	1.5	2.7	13.5	10.0
Sex ratio (Male/Female)					
Average household size	8.0	7.5	5.2	4.6	8.3
Region					
Metropolitan	2.6	10.1	6.7	28.9	22.3
Lower Urban	3.7	10.7	7.8	22.2	17.8
Lower Rural	7.2	31.2	14.0	23.6	21.5
Upper Urban	35.7	22.2	24.9	16.8	20.2
Upper Rural	50.8	25.8	46.6	8.5	18.2
Total	100	100	100	100	100

Table (4)
Distribution of individuals by dwelling characteristics and dynamics of poverty

Variables	Chronic poor	Into poverty	Out of poverty	Never poor	All
Crowdedness in the dwelling					
Average floor area/person in dwelling	12.1	12.3	21.0	23.4	20.8
Average persons per room	2.4	2.2	1.4	1.2	1.5
Dwelling ownership					
Owned	81.1	73.3	71.0	63.2	66.9
Rented	7.1	14.3	10.2	26.1	21.5
Fringe benefit/grant	11.8	12.4	18.7	10.7	11.7
Dwelling characteristics					
Floor material: tiles or cement	47.4	74.4	73.2	92.0	83.6
Wall material: brick, stone or concrete	70.1	76.6	83.9	88.9	85.2
Roof material: reinforced concrete	38.3	61.2	64.6	89.3	78.7
Waste disposal (collector)	24.0	34.0	35.9	63.1	53.7
Availability of tap water	85.7	95.0	95.3	99.0	96.8
Connected to sewerage system	20.0	40.3	34.1	76.1	62.8
Availability of toilet inside house	91.1	91.1	94.4	98.1	96.3
Electricity is source of lighting	98.9	99.0	99.0	99.8	99.5
Percentage of ownership of durable goods					
Washing machine (%)	80.7	83.9	93.8	96.5	93.3
Cooker (%)	69.0	77.5	85.9	93.2	88.3
Fridge (%)	61.9	74.7	79.3	95.0	88.0
Electric fan (%)	76.1	64.1	77.7	85.5	81.9
Color TV (%)	42.4	57.4	66.2	88.6	78.5
Radio (%)	51.2	54.2	70.5	81.7	74.7
Iron (%)	33.1	49.4	62.6	85.4	74.1
Phone (%)	24.8	37.2	47.3	70.8	60.5
Water heater (%)	1.4	10.7	14.9	59.5	44.6
Kerosene cooker (%)	38.4	33.8	25.8	19.7	23.6
Black & White TV (%)	47.3	35.2	27.3	10.5	18.4
Bicycle (%)	19.0	15.8	20.5	16.1	16.8
Computer (%)	0.3	1.0	1.0	14.9	10.8
Video (%)	0.8	0.7	1.7	14.1	10.3
Sewing machine (%)	1.3	6.9	3.0	9.8	8.0
Camera (%)	1.1	3.1	1.0	9.5	7.2
Private car (%)	0.0	0.0	0.1	9.2	6.5
Air condition (%)	0.0	0.0	0.0	7.5	5.3
Freezer (%)	0.0	0.0	0.2	6.8	4.8
Heater (%)	0.7	0.2	0.7	6.1	4.5
Microwave (%)	0.9	1.2	1.4	2.9	2.4
Dishwasher (%)	0.2	0.0	0.3	1.8	1.3

4.3 Factors affecting Dynamics of Relative Income Poverty

4.3.1 Exit and Chronic Poverty Model

The Binary Logistic model is used to assess the main factors affecting the exiting from poverty, where the percentage of correct classification reached 89 percent.

The results presented in Table (5) show that the most significant variables that have great impact on household to exit from poverty are the education level and sector of work of household heads, region, household size, average persons per room, floor and wall material, household owning enterprise or sharing it, change in the household share of government and public sectors employees, and wealth index.

The education level of household heads has the strongest impact on exiting the household from poverty, where households with highly educated heads are more likely to exit from poverty. Households lived in Upper urban are less likely to exit from poverty than those who live in Metropolitan governorates by about 75% after controlling all other factors.

Households who owned or shared household enterprise in years 1998 and 2006 are more likely to exit from poverty than those who did not own or share household enterprise by about 3.6 times.

As expected when household size increased by one member, the odds of exiting from poverty decreased by 60%. Additionally, for every unit increase in the average of persons per room, the odds of exiting from poverty decreased by 85%.

4.3.2 Model of Relative Poverty Entries

Regarding the model of entering poverty, the results show that the percentage of correct classification for the logistic model is 91%. Results presented in Table (5) show that the variables that have great impact on households to enter into poverty are the region, education

level and marital status of household heads, household size, average persons per room, average floor area per person, owning household enterprise or sharing it, the change in the household share of employed persons, change in the share of illiterate and university graduate persons, dwelling characteristics and wealth index.

The data shows that households who live in Upper urban are more likely to enter into poverty than those who live in metropolitan governorates by about 4.6 times after controlling all other factors. Higher educational level of household heads decreases the likelihood of entering poverty. Additionally, when household size increases by one member, the odds of entering into poverty increase by 2.3 times. Increases the share of children less than 6 years in the household, increases the likelihood of entering poverty, while increasing the share of adults (15-64 years), which is the labor force age, decreases the probability of entering poverty. The results show that households who owned or shared household enterprise in years 1998 and 2006 are less likely to enter into poverty than those who did not own or share household enterprise by about 77% after controlling all other factors. Moreover, the decline of household share of employed persons has great impact on entering poverty as shown in Table (5).

Table (5)
Logistic Regression Results of relative Poverty Exits and Entries

Variables	Exits poverty model			Entries poverty model		
	Confidence interval		Exp (B)	Confidence interval		Exp (B)
	Lower	Upper		Lower	Upper	
The characteristics of household's head						
Educational level: Illiterate (Ref.)						
Literate without any certificate	2.530	5.244	3.642	0.328	0.581	0.436
Basic education	2.733	5.426	3.851	0.372	0.610	0.476
Intermediate education	1.728	4.249	2.710	0.523	0.866	0.673
University & above	3.183	167.474	23.088	0.142	0.433	0.248
Marital status: Unmarried (Ref.)						
Married	-	-	-	0.458	0.741	0.583
The sector of work: Government & public enterprises (Ref.)						
Other including (Private, investment, foreign)	5.467	21.553	10.855	-	-	-
Characteristics of household's members						
Household size	0.373	0.436	0.403	2.201	2.460	2.327
Share of children smaller than 6 years	0.900	0.917	0.909	1.031	1.043	1.037
Share of children (6-14) years old	0.936	0.950	0.943	-	-	-
Share of adults (15-64) years old	-	-	-	0.957	0.967	0.962
Region: Metropolitan governorates (Ref.)						
Lower Urban	0.266	0.998	0.515	0.818	1.556	1.128
Lower Rural	2.393	8.457	4.499	0.161	0.314	0.225
Upper Urban	0.138	0.441	0.246	3.314	6.356	4.590
Upper Rural	1.030	3.305	1.845	0.408	0.878	0.598
The dwelling characteristics						
Average floor area per person	-	-	-	0.928	0.957	0.942
Average persons per room	0.126	0.188	0.154	2.906	3.978	3.400
The ownership of dwelling: Owned (Ref.)						
Rented	-	-	-	2.064	3.427	2.659
Fringe benefit or grant	-	-	-	0.630	1.092	0.830
Floor material: Mud (Ref.)						
Tiles or cement	1.517	2.529	1.958	0.587	0.971	0.755
Other including (wooden, brick, stone,	0.302	1.252	0.615	0.167	0.489	0.286
Wall material: Brick, stone and concrete (Ref.)						
Mud	0.193	0.358	0.263	2.431	4.015	3.124
Other including (wood & tree	0.328	1.295	0.651	0.600	1.247	0.865
Waste disposal: Public & private collector (Ref.)						
Throw in road or stream	-	-	-	0.929	1.451	1.161

Variables	Exits poverty model			Entries poverty model		
	Confidence interval		Exp (B)	Confidence interval		Exp (B)
	Lower	Upper		Lower	Upper	
Other including (dump, burn, bury)	-	-	-	2.196	3.330	2.704
The sewerage system: Public network (Ref.)						
Tank	-	-	-	1.764	2.661	2.166
No sanitation	-	-	-	0.323	4.445	1.198
The durable goods: First quintile (Ref.)						
2 nd quintile	1.378	2.777	1.956	0.085	0.069	0.106
3 rd quintile	4.651	9.736	6.729	0.020	0.015	0.026
4 th quintile	17.369	39.871	26.316	0.011	0.007	0.018
5 th quintile	78.677	200.445	125.580	0.001	0.001	0.002
Improvement in the share of household enterprise						
Illiterate persons: Increased (Ref.)						
Stable	-	-	-	0.264	0.461	0.349
Decreased	-	-	-	0.760	1.117	0.922
University graduates: Increased (Ref.)						
Stable	-	-	-	1.635	2.960	2.200
Decreased	-	-	-	0.422	1.046	0.664
Employed persons: Increased (Ref.)						
Stable	-	-	-	1.477	3.138	2.153
Decreased	-	-	-	1.593	2.410	1.960
Government & public enterprises: Increased (Ref.)						
Stable	0.031	0.085	0.051	-	-	-
Decreased	0.061	0.166	0.101	-	-	-
Family projects: owning or sharing household enterprise						
Household didn't own or share household enterprise in 1998 & 2006 (Ref.)						
Household didn't own or share household enterprise in 1998 then it owned or shared household enterprise in 2006	1.159	2.043	1.539	0.677	1.053	0.844
Household owned or shared household enterprise in 1998 then it didn't own or share household enterprise in 2006	3.441	6.985	4.903	0.431	0.704	0.551
Household owned or shared household enterprise in 1998 & 2006	2.400	5.510	3.636	0.167	0.327	0.233
Constant			6464.70			0.000

- : Insignificant parameters

References

- [1] Lok-Dessallien, Renata, "Review of Poverty Concepts and Indicators", http://www.undp.org/poverty/publications/pov_red/Review_of_Poverty_Concepts.pdf7
- [2] Giovanni L., and Liberati P., (2005), "Impacts of Policies on Poverty: Relative Poverty Lines", Agricultural Policy Support Service, Policy Assistance Division, FAO, Rome, Italy.
- [3] National Statistics Institute, "Poverty and Its Measurement: The Presentation of a Range of Methods to Obtain Measures of Poverty", Spain.
http://www.ine.es/en/daco/daco42/sociales/pobreza_en.pdf, Accessed March 30, 2011.
- [4] Assad, R. and Roushdy, R. (2007), "Poverty and Geographic Targeting in Egypt: Evidence from a Poverty Mapping Exercise", Population Council, Cairo.
- [5] Assad, R. and Roushdy, R. (2006), "Poverty and the Labor Market In Egypt: A Review of Developments in the 1998- 2006 Period", Population Council, Cairo.
- [6] Mary, Signe and Ratcliffe, Caroline (2002), "Transition Events in the Dynamics of Poverty", the Urban Institute, Washington D.C
http://www.urban.org/uploadedpdf/410575_DynamicsofPoverty.pdf
- [7] Stevens, Ann Huff (1994), "The Dynamics of poverty Spells: Updating Bane and Ellwood", AEA Papers and Proceeding, Vol. 84, No. 2, 34-37, Quoted by Mary and Ratcliffe (2002).
- [8] Iceland, Johan (1997), "Urban Labor Markets and Individual transitions out of poverty", Demography, Vol. 34, No. 3, 429- 441, Quoted by Mary and Ratcliffe (2002).
- [9] Armanious, D. and Rashed, A. (2009), "Determinants of Changes in The Household Socioeconomic status in Egypt (1998-2006)". The 2011 Annual Meeting of the "Population Association of America" (PAA), Washington, DC, USA.
- [10] Haddad, Lawrence and U. Ahmed Akhter (2002), "Avoiding Chronic and Transitory Poverty Evidence From Egypt, 1997- 99", Food Consumption and Nutrition Division, International Food Policy Research Institute, Washington, D.C., U.S.A
- [11] World Bank (2010), "Poverty in Egypt 2008-09: Withstanding the Global Economic Crisis", Social and Economic Development Group Middle East and North Africa Region.
- [12] Frees, E.W. and Kim, J.-S. (2007), "Longitudinal and Panel Data", University of Wisconsin, Madison.
<http://research3.bus.wisc.edu/file.php/129/Papers/FreesKimLongDataChapter16Feb2007.pdf>, Accessed October 13, 2009.
- [13] Ikram, K. (2006), "The Egyptian Economy 1952- 2000: Performance, Policies, and Issues", Routledge Studies In Middle Eastern Economies, London and New York, 247- 276.
- [14] World Bank (2007), "Arab Republic of Egypt Poverty Assessment Update", Social and Economic Development Group Middle East and North Africa Region.
- [15] World Bank (2009), "Economic Growth, Inequality and Poverty: Social Mobility in Egypt between 2005 and 2008", Social and Economic Development Group Middle East and North Africa Region.

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References

- [1] Lok-Dessallien, Renata, "Review of Poverty Concepts and Indicators", http://www.undp.org/poverty/publications/pov_red/Review_of_Poverty_Concepts.pdf7
- [2] Giovanni L., and Liberati P., (2005), "Impacts of Policies on Poverty: Relative Poverty Lines", Agricultural Policy Support Service, Policy Assistance Division, FAO, Rome, Italy.
- [3] National Statistics Institute, "Poverty and Its Measurement: The Presentation of a Range of Methods to Obtain Measures of Poverty", Spain.
http://www.ine.es/en/daco/daco42/sociales/pobreza_en.pdf, Accessed March 30, 2011.
- [4] Assad, R. and Roushdy, R. (2007), "Poverty and Geographic Targeting in Egypt: Evidence from a Poverty Mapping Exercise", Population Council, Cairo.
- [5] Assad, R. and Roushdy, R. (2006), "Poverty and the Labor Market In Egypt: A Review of Developments in the 1998- 2006 Period", Population Council, Cairo.
- [6] Mary, Signe and Ratcliffe, Caroline (2002), "Transition Events in the Dynamics of Poverty", the Urban Institute, Washington D.C
http://www.urban.org/uploadedpdf/410575_DynamicsofPoverty.pdf
- [7] Stevens, Ann Huff (1994), "The Dynamics of poverty Spells: Updating Bane and Ellwood", AEA Papers and Proceeding, Vol. 84, No. 2, 34-37, Quoted by Mary and Ratcliffe (2002).
- [8] Iceland, Johan (1997), "Urban Labor Markets and Individual transitions out of poverty", Demography, Vol. 34, No. 3, 429- 441, Quoted by Mary and Ratcliffe (2002).
- [9] Armanious, D. and Rashed, A. (2009), "Determinants of Changes in The Household Socioeconomic status in Egypt (1998-2006)". The 2011 Annual Meeting of the "Population Association of America" (PAA), Washington, DC, USA.
- [10] Haddad, Lawrence and U. Ahmed Akhter (2002), "Avoiding Chronic and Transitory Poverty Evidence From Egypt, 1997- 99", Food Consumption and Nutrition Division, International Food Policy Research Institute, Washington, D.C., U.S.A
- [11] World Bank (2010), "Poverty in Egypt 2008-09: Withstanding the Global Economic Crisis", Social and Economic Development Group Middle East and North Africa Region.
- [12] Frees, E.W. and Kim, J.-S. (2007), "Longitudinal and Panel Data", University of Wisconsin, Madison.
<http://research3.bus.wisc.edu/file.php/129/Papers/FreesKimLongDataChapter16Feb2007.pdf>, Accessed October 13, 2009.
- [13] Ikram, K. (2006), "The Egyptian Economy 1952- 2000: Performance, Policies, and Issues", Routledge Studies In Middle Eastern Economies, London and New York, 247- 276.
- [14] World Bank (2007), "Arab Republic of Egypt Poverty Assessment Update", Social and Economic Development Group Middle East and North Africa Region.
- [15] World Bank (2009), "Economic Growth, Inequality and Poverty: Social Mobility in Egypt between 2005 and 2008", Social and Economic Development Group Middle East and North Africa Region.