

**THE EGYPTIAN POPULATION AND  
FAMILY PLANNING REVIEW.  
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*Work and Retirement Behavior in Old Age:  
The Experience of Older Egyptian Men*

*By*

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### 1. Introduction

Research on the labor force participation and retirement behavior among older persons in Egypt is scarce. Most of the studies in this area are restricted to study of special professional groups and their main focus is on the post-retirement behavior of older persons in relation to their surrounding network (see for example Hamza, 2002). The relative importance of the different factors that influence both the work and retirement behavior in old age were never investigated. Misconception of retirement as a process limited to civil servants, military personnel and employees in the formal economic sector and the strong cultural and traditional norms that shoulder the family the responsibility of its members in their old age.

However, in Egypt, the relevance of research on older persons' work experience is expected to emerge in response to two currently operating forces within a context of continuing social changes; namely population aging and the implementation of economic reform policies. Population aging has not materialized yet as a significant demographic issue in Egypt. At present, 5.7% of the total population is aged 60 years and older compared to 37.8% aged less than 15 years of age (CAPMAS 2001). Nevertheless, recent declines in fertility and mortality levels are projected to result in significant shifts in the relative weight of these two segments of the population and place Egypt on the brink of a rapid aging process. The United Nations (2001) projected that by the year 2020, the proportion of persons aged 60 years and older will reach 10.2% of the total population, and by the year 2050, this proportion will exceed 20.8%. In the meanwhile, the absolute numbers of older persons will also grow faster than these percentages, from 4.2 million in 2000 to 23 million by the year 2050.

In addition to the rapid pace of the aging process, since 1987 Egypt has been undergoing substantial economic reform measures that adversely affect the well-being of vulnerable groups in the population, in particular those groups with fixed incomes (El Laithy 2001). This comes as a result of the basic mechanisms adopted within this reform, such as the devaluation of the Egyptian pound and the consequent reduction in the real income and the reduction of real investment in the social services budget. Researchers argue that these measures lead to the disproportionate decline of income for the vulnerable groups in particular those with fixed incomes (Korayem 1995). At the core of these vulnerable groups, we can easily identify older persons with their limited resources and their reliance on the social security system. These measures can therefore have significant implications for older persons' sources of support and on their work behavior.

This paper explores the work and retirement behavior among older men in Egypt. It also examines the relevance of the main factors identified in the literature to relate to retirement decisions such as health, education and economic status in the Egyptian context. It also explores the extent to which the relationships among these factors and work and retirement behavior in the Egyptian context confirm to their documented pattern in the literature.

The paper is organized as follows. The theoretical framework of the main factors underlying the retirement decision is briefly discussed in the next section. The following section describes the general pattern of older persons' contribution in the labor market and their retirement behavior in Egypt using available data from decennial censuses. This is followed by data and method section. The results are presented in the fifth section. Finally, the sixth section includes discussion and conclusion.

## **2. Decision to retirement: Theoretical Perspective**

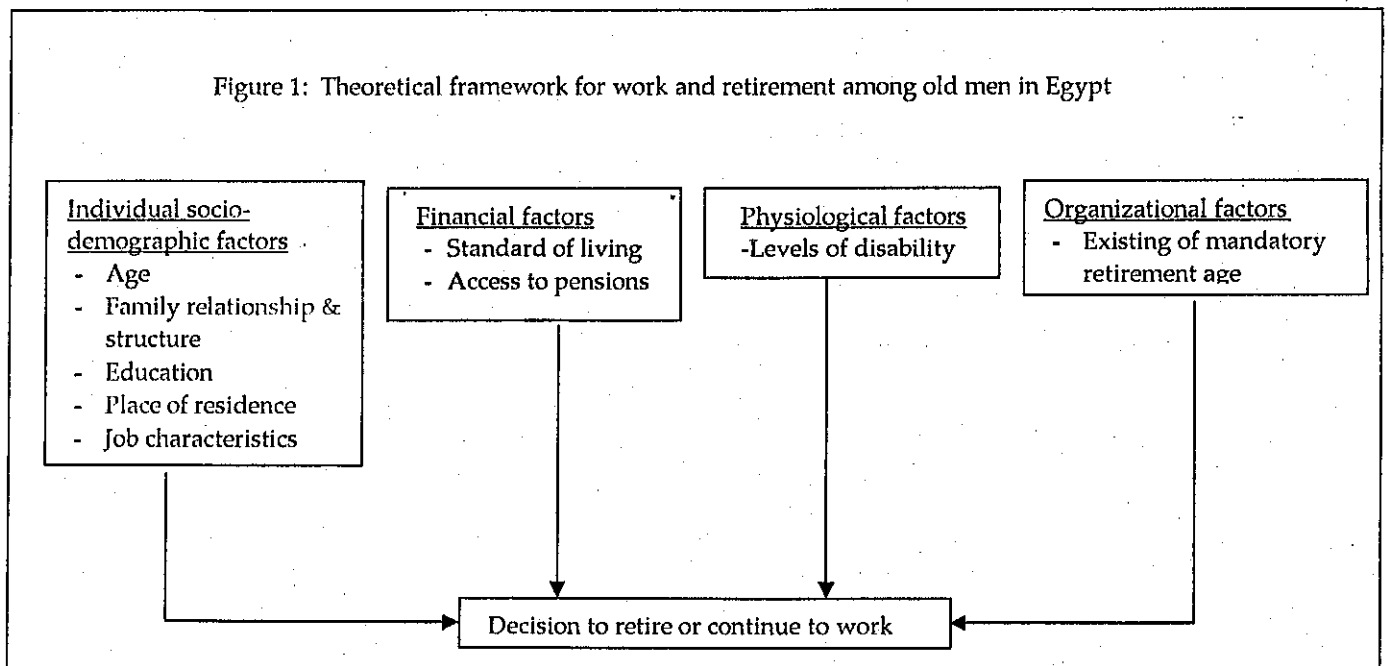
Studies of older persons' participation in the labor market and retirement behavior have been under a great deal of theorization and systematic research in many developed countries. Studies in this area can be traced back as early as 1940's. Quinn and Burkhauser (1994) argued that early literature on retirement suggest that transition to retirement was an involuntary process dictated by poor health, layoffs and retirement policies. With introduction of pension plans and social security systems, more recent literature addressed this transition as a voluntary process in which the retiree chooses between leisure and work based on his/ her gains and benefits in each case. Other factors such as individual life course perspective for instance familial relationships were incorporated in these studies to assess their impact on the decision to retire (Hermalin, 2002).

Generally, the literature classifies factors underlying the transition to retirement into individual demographic factors, financial factors, physiological factors and organizational factors (Doering, Rhodes and Schuster 1983). Strong evidences reveal that financial status, educational attainment, job satisfaction and health status are the most important factors underlying retirement decisions. Persons with high financial status, as indicated by access to pension and social security income and presence of large net assets, are more likely to retire (Smith and Kington 1997; Quinn & Burkhauser 1994), whereas highly educated persons and those with high job satisfaction are less likely to retire (Doering, Rhodes, and Schuster 1983). Studies on retirement behavior among older persons also identified lower health status and increased levels of disability as strong factors that increase older persons' propensity to retire (Smith and Kington 1997; Quinn &

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Burkhauser 1994; Doering, Rhodes, and Schuster 1983 ). Other factors were also found to be less related to retirement decision. These included old age, working as employee, low level and undesirable occupation, existence of mandatory retirement policies or maximum age for retirement (Doering, Rhodes, and Schuster 1983).

Although these factors have been extensively scrutinized in many social settings in the world in particular in developed countries, they have not been investigated within the Egyptian society. The current study examines the validity of the relationships between these factors and the work and retirement behavior of older Egyptian men. Figure 1 presents the theoretical framework underlying the current study of correlates to retirement behavior among older Egyptian men. It incorporates most of the factors identified in the literature. Based on this framework, the main hypotheses of the current study can be summarized as follows.



### Individual socio demographic factors

- Old age increase the probability of retirement
- Being married decrease the probability of retirement
- Being the head of the household decrease retirement probability
- Having sons increases retirement probability, while having daughters exerts no influence on retirement behavior
- High educational attainment increase older persons probability to retire
- Urban residents are more likely to retire than rural residents

Financial factors

- High standard of living is strongly associated with more propensity to retirement
- Access to pension increases the likelihood of retirement

Physiological factors

- Lower levels of disability is associated with lower probabilities of retirement

Organizational factors

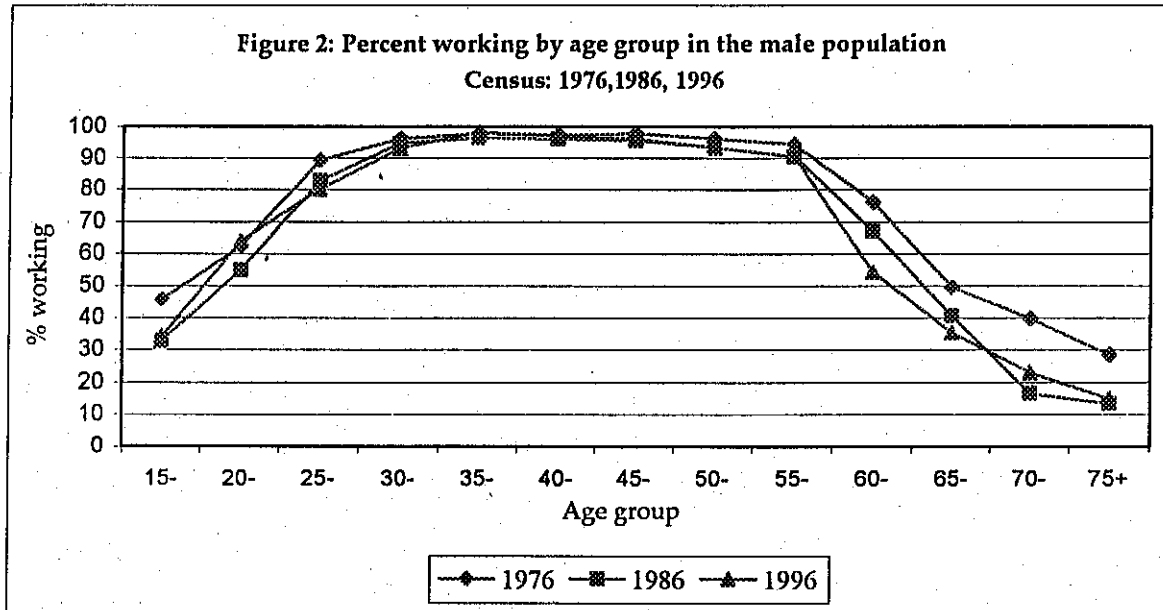
- White collar workers are more likely to retire than other workers such as labors and professionals because of the existence of the mandatory age retirement and access to pension plans

### 3. Older workers, retirees, and social security in Egypt

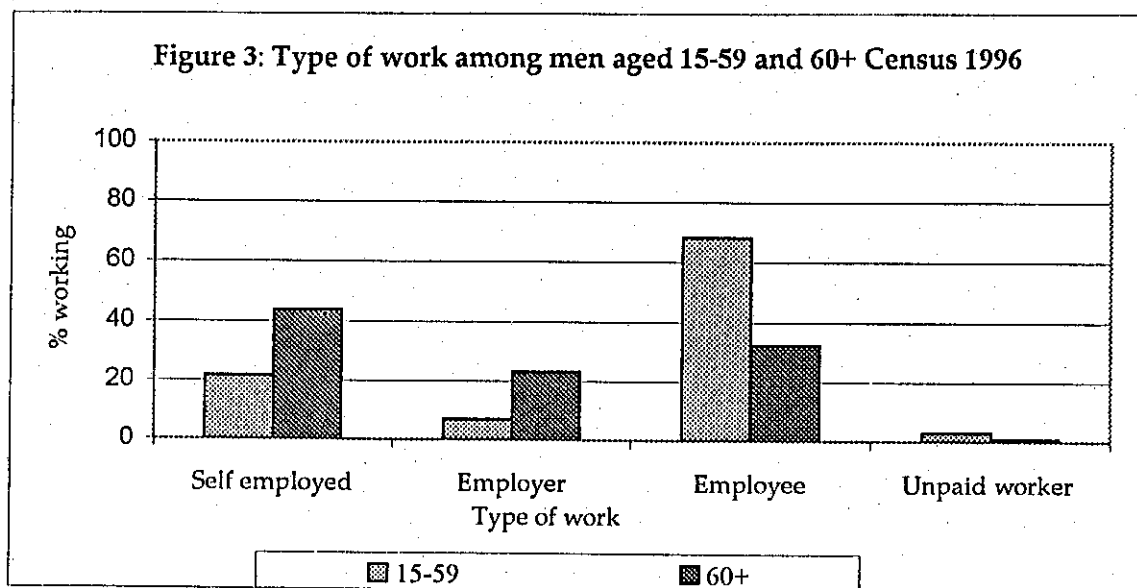
Kinsella and Taeuba (2001) noted that work and retirement behavior of older men is markedly different between developing and developed countries. While less than 14.2% of older men aged 65 and older in developed countries continues to work in their old age, the corresponding figure in developing countries is 40.5% (UN, 2002). Furthermore, Kinsella suggests that in the later group of countries, the decline of men labor force participation is more gradual and not as sharp as in the developed countries.

In Egypt, more than 38% of older men aged 60 years and older maintain their participation in the labor market (CAPMAS, 2001). This trend has been steady over the last three decades as indicated by the similar pattern of male labor force participation among older men over the last three consecutive censuses (Figure 2). The only exception is the slightly higher levels of labor force participation in the seventies due to open door policies prevailing in Egypt during this period of time. This pattern discloses a gradual decline in the percent working among older persons beyond the conventional age of retirement (60 years). In 1996, figure 2 shows that one out of every two men worked between the ages 60-64, a percentage that declines slowly till age 75 and older at which one out of every seven men continues to work in the labor market. Data from the 1996 census also show that while working age population (15-59 years) is almost equally divided between urban and rural residents, the majority of older workers aged 60 years and older are rural residents (69%). This is consistent with the fact that workers in the agricultural sector tend to retire later than workers in other sectors.

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Furthermore, working as self employed and employers are more prevalent among aged workers compared to younger workers (Figure 3). Almost two thirds of older workers were classified in these two categories, compared to less than one third among workers aged 15-59 years. This is reflected in the dominance role of the private sector as the sector of employment among older workers capturing almost 91% of them, although it harnesses only 68% of employment among younger workers. In contrast, while governmental and public sectors' share is significantly larger for younger workers (32%), they only provide 9% of employment for older persons (CAPMAS, 2001).



Retirement is the other face of the coin for work in old age. Data from the 1996 census reveals that more than 62% of men aged 60 and plus are

retiree. However, this percentage is probably an over estimation of the retirement behavior among older men. Many older retired persons tend to pursue "bridge job," in which they engage in income producing activities with flexible work hours and payment to supplement their income. Tadros (1984), in a study of the relationship between social security systems and the family in Egypt, reported that the majority of the social security beneficiaries were 60 years and older and that 17% of those beneficiaries had to pursue income producing activities in order to supplement their insufficient pensions.

During retirement years, economic security is a vital prerequisites for the welfare of the older persons and their families. Informal economic support is deep-rooted within the Egyptian cultural traditions where the family and charity are the primary sources of economic support in old age. Many studies emphasis the vital role of children and other relatives in providing for their older family members. They concluded that more than 32% of the support provided to older family members come from children and other relatives (Khadr, 1997; Tadros, 1984).

Formal support, in contrast, emerges in the form of social security programs. In Egypt, these programs, in the modern sense, date back as early as the late nineteenth century. December 1854 was the date at which first legislation for civil servants', employees' and workers' civil pensions was enacted. Since then, various programs have been launched, the latest being the 1996 Mubarak Social Solidarity Program. In the present time, the social security system in Egypt encompasses two main programs; Social Insurance Program (SIPs) and Social Assistant Program (SAPs). Each of these two schemes of programs has been organized by a series of laws identifying their target populations and offered benefits. While SIPs are mainly concerned with the provision of old age, disability, death and other benefits to government, public sector and private sector employees subject to the Labor Law provision, self employed persons and persons working abroad (though the latter group subscribe to the plan on voluntary basis), SAPs extend their coverage to other sectors of the population not provided for in SIPs. These include temporary and casual workers in agriculture, small farmers with landholding of less than 10 feddans, small scale self employed, domestic servants, older persons (65+) who are destitute, and families with monthly income of less than LE100. CAPMAS (2001) reported that actual pension receivers under SIPs and SAPs programs totaled 6.906 million persons representing 10% of the total population for the period 1999 to 2002. They include 1.9 million pensioners and 4.9 million other beneficiaries.

Social security programs in Egypt have been extensively criticized for their inefficiency in targeting beneficiaries (Laithy, 2001) and for the

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inadequacy of their benefits to secure a decent standard of living that at least exceeds the country poverty line (Institute of National Planning 2001). In 1999/2000, the maximum average pension provided under the SIPs was LE355.9 per person<sup>1</sup>, while the lowest World Bank estimates of poverty line in Egypt is LE953 per person per month (World Bank, 2002)<sup>2</sup>. The situation is far worse for those covered under the SAPs where their benefits are far less than those provided by SIPs.

### 4. Data and Methodology

#### 4.1 Data:

Data in this paper come from the 1994 Developmental Impact of Demographic Change: Global Aging in Egypt (EDIDC:GA), a study carried out by the United Nation Office in Vienna in collaboration with the Social Research Center of the American University in Egypt. It aimed at providing a portrait of Egypt's aging population (60+) and their contribution to the development process. A stratified sample by locality, gender and age group was drawn from three governorates in Egypt: Cairo, Giza and Menoufia (their population comprises almost one fourth of the whole Egyptian population). The questionnaire was originally developed in the United Nations Office in Vienna and was adapted to the Egyptian context by researchers in the Social Research Center at the American University in Cairo.

The questionnaire covered various aspects of older persons' lives and social context and included separate sections on background and demographic characteristics, domestic activities, social and cultural activities, occupation and work history, family and community activities, housing facilities, and health status and disability. The study aimed at interviewing 900 older persons, the survey yielded 867 completed interviews with a response rate of 96%.

#### 4.2 Methods and variables

##### Methods:

This study employs both descriptive statistics and regression analysis to explore the work and retirement behavior among older persons. Regression analysis is used to examine the relationship between working in old age and the attributes of older persons. To this end, the paper analyzes retirement and work status using the 1994 Egyptian Developmental Impact of

<sup>1</sup> This average represents the average benefits provided to civil employees in the government under the SIP programs.

<sup>2</sup> The World Bank provided estimates for the different regions in Egypt, the lowest of which is poverty line for rural Upper Egypt amounting to LE 953



Demographic Change survey data. In recognizing that retirement is a gradual process, retirement and work status among older persons are examined in terms of an ordinal variable coded as 0 for continuing to work in life long job, 1 for being retired but engaged in a "bridge jobs" and 2 for being retired. Due to the ordinal nature of the dependent variable, the regression analysis uses the ordered logit model (Greene, 2000)

$$\text{Logit} \left( \sum_{i=1}^c p_i \right) = \log \frac{\sum_{i=1}^c p_i}{1 - \sum_{i=1}^c p_i} = \alpha_c + \beta' x$$

Where  $P_i$  the probability of category  $i$

$$\sum_{i=1}^k p_i = 1$$

$k$  number of categories

$\alpha_c$  &  $\beta$  coefficients to be estimated

$x$  a vector of independent variables

#### Variables:

Table 1 presents the distribution of the variables included in the analysis. Work and retirement status is divided into three categories, namely retired, working in a bridge job and continuing work in life long job. Bridge job refers to work in some income producing activities other than life long job. Table 1 shows that 59% of older men in the sample continue to work while 21% move to a bridge job and another 20% retired. About 40% of the sample classified their life long job as professional workers followed by 30% as unskilled workers and 18% skilled workers. White collars and other jobs were reported by 12%. High level of illiteracy is prevalent among the sample member as indicated by having 51% of the sample being uneducated and only 15% has more than primary education. The majority of the sample are married (87%) and heads their households (96%) with more than 53% has more than 3 sons and 42% has more than 3 daughters.

Levels of disability is measured in terms of older persons capability to carry out some of the activities of daily living (ADL) such as walking, pushing heavy objects, stooping and kneeling, carrying a weight of 5 kilos, reaching over ones heads, and fingering small objects and Instrumental Activities of Daily Living (IADL) including cooking or heating a meal and traveling alone.

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Table 1. Distribution of the dependent and independent variables in the analysis

Variables	%
work status	
- Retired	20.2
- Bridge work	20.9
- Working	58.9
Type of work	
- Professional	39.8
- Skilled labor	17.9
- Unskilled labor	29.8
- White collar and other jobs	12.5
Age group	
- 60-64	32.4
- 65-69	33.5
- 70+	34.1
Education attainment	
- No education	50.7
- Primary education	34.3
- More than primary education	15.0
Marital status	
- Married	87.5
- Others	12.5
Headship of household	
- head	96.4
- others	3.6
Number of sons	
- No sons	6.6
- 1-2 sons	40.0
- 3+ sons	53.4
Number of daughters	
- No daughters	9.8
- 1-2 daughters	47.9
- 3+ daughters	42.3
Place of residence	
- Urban	45.9
- Rural	54.1
Region	
- Cairo	19.1
- Menoufia	40.0
- Giza	40.9
Level of disability	
- No disability	31.6
- 1-4 disability	36.6
- 5+ disability	31.8
Standard of living	
- 0-4 household facilities	24.8
- 5-7 household facilities	39.3
- 8-9 household facilities	35.9
Access to pensions	
- Yes	37.9
- No	62.1

The score of disability is the count of activities in which the respondents experience some difficulty in carrying them out. I choose to classify the score into three categories namely, no disability, having 1-4 disabilities and 5 or more disabilities. This classification resulted in an almost equal distribution of the sample over the three categories.

Standard of living is also measured in terms of the respondents' possession of consumer durable goods such as washing machines, fridge, television and radio, and household facilities such as availability of fresh water, cooking space, plumbing and bathrooms. The score is classified into three categories, the first includes respondents with 0-4 goods or facilities at home while the second consists of those with 5-7 goods or facilities and third includes 8-9 consumer durable goods and facilities. Table 1 shows that more than three fourths of the sample have 5 or more consumer durable goods or facilities in their households. Financial security is also measured in terms of access to pension plans which was reported by 38% of the sample.

## **5 Correlates to working in old age**

### **5.1 Bivariate Analysis**

Table 2 explores the bivariate relationship between the different individual attributes and work and retirement behavior among older men in Egypt. It reveals that highly educated older men are more likely to retire than their less educated counterparts. However, education operates on many different dimensions to relate to work and retirement behavior among old men. Those who are highly educated are more likely to hold jobs covered with pension programs and have more economic resources which enable them to retire. Table 2 also shows that presence of sons lowers men tendency to continue to work in their old age. In contrast, presence of daughters has no effects on work behavior among old men.

Type of work exerts significant correlated to older men's work and retirement behavior. In comparison to white collar workers, professionals were more likely to maintain their life long job (70%) followed by unskilled laborers(67%). However, retirement is more prevalent among white collar workers (56%) followed by skilled laborers (20%) and professionals (17%).

Table 2 also shows that retirement is less prevalent among rural residents than among urban residents. Furthermore, regional differences are significant. Persons living in Giza are less likely to retire than those living in Menoufia and in Cairo. Levels of disability seem to exert no influence on the retirement behavior among old men according to the bivariate analysis.

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Table 2: Distribution of independent variables by work status.

Variables	Retired	Bridge work	Working
Age group			
60-64	18.2	23.8	58.0
65-69	21.8	19.7	58.5
70+	20.7	19.3	60.0
Education attainment***			
No education	6.3	18.4	75.3
Primary education	25.2	22.5	52.3
More than primary education	56.0	25.8	18.2
Marital status			
Married	27.1	18.2	54.6
others	19.2	21.3	59.5
Headship of household			
head	12.5	37.5	50.0
others	20.5	20.3	59.2
Number of sons***			
No sons	3.5	20.7	75.9
1-2 sons	27.8	19.4	52.8
3+ sons	16.6	22.1	61.3
Number of daughters			
No daughters	11.6	20.9	67.5
1-2 daughters	20.9	23.7	55.4
3+ daughters	21.6	17.7	60.7
Type of work***			
Professional	17.1	12.6	70.3
Skilled labor	20.3	24.0	55.7
Unskilled labor	9.2	23.6	67.2
White collar and other jobs	56.4	36.4	7.3
Place of residence***			
Urban	33.2	18.8	48.0
Rural	9.2	22.7	68.1
Region ***			
Cairo	57.1	11.9	31.0
Menoufia	14.2	34.7	51.1
Giza	8.9	11.7	79.4
Level of disability			
No disability	20.9	18.6	60.5
1-4 disability	18.6	21.7	59.7
5+ disability	21.4	22.1	56.5
Standard of living ***			
0-4 household facilities	4.6	15.6	79.8
5-7 household facilities	15.6	16.8	67.6
8-9 household facilities	36.1	29.1	34.8
Access to pension***			
Yes pension	50.9	33.5	15.6
No pension	1.4	13.2	85.4

\*\*\* P<0.001

Economic status as measured by standard of living scores and access to pension plans significantly affect old men likelihood to retire. Old men with high standard of living and access to pension plans are more likely to retire than others.

## 5.2 Multivariate Analysis

Table 3 presents the coefficients of the ordered logit models of the impact of older persons' attributes on their retirement behavior. It shows that high levels of education (more than primary education) increase the likelihood of retirement. The odds ratio for this segment of the older persons is 4 times more than illiterate persons to retire.

Type of life long jobs significantly affect the retirement behavior among older persons. Compared to white collar, professionals are the least likely persons to retire in old age (-1.98) followed by skilled labor (-1.12) and unskilled labor (-1.19) with controls for other variables in the model. This is also reflected in their odds ratio of retirement. Professionals revealed an odds ratio of 0.14 compared to those in white collar jobs, whereas the other two categories showed odds ratio of 0.30.

Marital status decreases the likelihood of retirement in old age. Married men probability of retirement were 0.37 the probability for currently unmarried men. Presence of sons significantly increases older persons' odds to retire three times or more compared to older men who have no sons. Higher odds of retirement are also associated with urban residence.

Health status as indicated by levels of disability revealed that only high levels of disability (5 or more disabilities) can increase the likelihood of retirement among older persons. This level of disability doubled the odds of retirement compared to those with no disability. Economic status measured in terms of standard of living revealed no significant association with retirement behavior among older persons, whereas access to pension increases significantly and substantially the likelihood of retirement. Older men with access to pension plans are almost 20 times more likely to retire than those with no access to retirement pension plans.

The relationships between the independent variables and the retirement behavior among older persons can be easily examined using the predicted probabilities. Table 4 presents the predicted probabilities for the three outcomes for a modal man and the changes in these probabilities with changes in his characteristics. The modal person is seventy years old, has no education, married, heads his household, has one to two sons and one to two daughters. He lives in the rural giza in a household with five to seven consumer durable goods and facilities in the household. He receives no pension, and has a middle levels of disability (1-4 disabilities in activities of daily living).

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Table 3. Estimates of the ordered logit model of work and retirement behavior of older persons(60+) in Egypt

Variables	Coef.	Std. Err.	Odds ratio
<b>Intercept</b>			
Intercept 1	1.52	(1.04)	
intercept 2	3.66	(1.05)	
<b>Age group, years (60-64)</b>			
65-69	0.29	(0.30)	1.33
70+	-0.06	(0.33)	0.94
<b>Educational attainment (no education)</b>			
less than primary education	0.32	(0.29)	1.37
More than primary education	1.52	(0.44) ***	4.59
<b>Type of life long job ( white collar and other governmental Jobs)</b>			
Unskilled laborer	-1.19	(0.40) **	0.30
Skilled laborer	-1.21	(0.42) **	0.30
Professional Job	-1.98	(0.43) ***	0.14
<b>Marital status ( not currently married)</b>			
Married	-1.00	(0.40) **	0.37
<b>Number of sons ( 0 sons)</b>			
1-2 sons	1.21	(0.60) *	3.34
3+sons	1.06	(0.59) *	2.89
<b>Number of daughters (0 daughters)</b>			
1-2 daughters	0.25	(0.47)	1.28
3+ daughters	0.01	(0.48)	1.01
<b>Headship of the household</b>	0.01	(0.66)	1.01
<b>Place of residence (Rural)</b>			
Urban	0.62	(0.30) *	1.85
<b>Governorate (Cairo)</b>			
Giza	-0.68	(0.40) *	0.51
Menoufia	-0.20	(0.45)	0.82
<b>Levels of disability ( 0 ADL disabilities)</b>			
1-4 ADL disabilities	0.20	(0.31)	1.22
5+ ADL disabilities	0.78	(0.33) *	2.19
<b>Standard of living (0-4 consumer durable goods and HH facilities)</b>			
5-7 consumer durable goods and HH facilities	0.30	(0.35)	1.35
8-9 consumer durable goods and HH facilities	0.64	(0.40)	1.89
<b>Access to pension</b>	2.98	(0.33) ***	19.77

+  $p < 0.10$ ; \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$

Note : Reference categories are in parentheses

The first glance of table 4 reveals that the probability of complete retirement is significantly low among older Egyptian men. On one hand, except for those who have access for pension and to less extent those who worked in white collar jobs, this probability commonly ranges between 1% to 3%. For the former two groups, the probabilities are 13% and 5%, respectively. On the other hand, the probability of continuing work in life long jobs is significantly high. It exceeds 90% for most of the cases. More specifically, this table reveals the strong association between access to pension and retirement behavior among older men in Egypt. While those with no access to pension have a 94% probability of continuing to work in their life long jobs and 5% probability of engaging in a bridge job, those with access to pension maintain only 45% of continuing their life long job and almost a similar probability (42%) of working in bridge job. However, these later probabilities provide an indication to the problem of pension insufficiency for old person in Egypt. This is evident by the large probabilities of engagement in bridge jobs in order to supplement the pensions.

In addition table 4 reveals the negative association between continuing to work in life long job and education, which is compensated for by the positive association between education and working in a bridge job. Table 4 also shows that there is a probability of 98% of continuing life long jobs among those persons who have no sons. This probability decreases to at least 95% among those who have sons. Rural residence reveals high probability of continuing life long jobs. Notwithstanding, urban residence is associated lower probabilities for continuing life long jobs but with higher probability of engaging in bridge jobs than rural residence.

Disability levels shows no effects on retirement behavior. However, table 4 shows that sever disability ( 5 disabilities in ADL) is associated with a switch from life long job to a bridge job may be with more flexible requirements.

## 6 Discussion

Egypt is currently undergoing significant demographic and economic changes. Demographically, Egypt is at the brink of a rapid aging process that is characterized with large aging cohorts due to successful family planning programs and advancement in both medical and public health policies. Economically, the 1987 marked the implementation of the economic reform and structural adjustment policies. The combination of these two forces of changes is expected be affect negatively the economic well-being of many vulnerable groups including older persons.

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Table 4: Predicted probabilities of work and retirement behavior among older persons

	Continue life long job	Bridge job	retirement
Age 60-64	0.94	0.05	0.01
Age 65-69	0.92	0.07	0.01
Age 70+ (modal person)	0.94	0.05	0.01
Professional (modal person)	0.94	0.05	0.01
Skill labor	0.88	0.10	0.02
Unskill labor	0.88	0.10	0.02
White collar and other jobs	0.69	0.26	0.05
No education (modal person)	0.94	0.05	0.01
Primary education	0.92	0.07	0.01
More than primary education	0.78	0.19	0.03
Married (modal person)	0.94	0.05	0.01
Not married	0.86	0.12	0.02
Sons 0	0.98	0.02	0.00
Sons 1-2	0.94	0.05	0.01
Sons 3+	0.95	0.04	0.01
Daughters 0	0.95	0.04	0.01
Daughters 1-2	0.94	0.05	0.01
Daughters 3+	0.95	0.04	0.01
Rural (modal person)	0.94	0.05	0.01
Urban	0.90	0.09	0.01
Disability 0	0.95	0.04	0.01
Disability 1-4	0.94	0.05	0.01
Disability 5+	0.90	0.09	0.01
Standard of living 0-4	0.95	0.04	0.01
Standard of living 5-7(modal person)	0.94	0.05	0.01
Standard of living 8-9	0.92	0.07	0.01
No pension (modal person)	0.94	0.05	0.01
Pension	0.45	0.42	0.13

One of the major mechanisms used to confront economic vulnerability among older persons is to maintain their participation in the labor market. Data from 1996 census showed that almost 40% older persons aged 60 and older maintains their participation in the labor market. This rate is equal to similar rates of labor force participation in other developing countries such as Thailand, Taiwan and Singapore ( Hermalin et al., 2002)

In recognizing that retirement is not a one stage shift from full participation in the labor market to a complete retirement, I investigated the work and retirement behavior among older men as a process that occurs in



two stages. The first stage involves the movement from full participation in the labor market to engagement in bridge job, while the second stage incorporate the shift from the bridge job to full retirement. Bivariate investigation of the main correlates to men's work and retirement behavior in old age identified educational status, economic status, life long job, and place of residence as the major factors associated with this behavior. Although health is commonly identified as a significant factor in determining older persons work status, it seems to matter less in case of Egypt.

The multivariate analysis revealed that retirement is not prevalent among older persons in Egypt. The revealed that there is a probability of more than 95% that they will maintain their participation in the labor market. It also showed that similar to the experience of many developing countries, access to pension was the most significant factor associated with work and retirement behavior among older persons. Nevertheless, the analysis also provides some indications that these pensions are insufficient to the extent that they drive many older persons to pursue income producing activities to supplement them.

Other factors also were associated to older persons participation in the labor market. Type of life long job and its level of adherence to enforced retirement age affected older persons work plans and encourage many of them to engage in income producing activities. Education levels acted in similar way in which the more educated decline work in life long job and seek work in less demanding but income producing activities.

Place of residence also revealed similar pattern of association with work in old age to that observed in many developing countries. Rural residence were more likely to maintain their life long job than urban residence. This in fact is a reflection to two main factors. The first factor captures the impact of the rural context itself on the work behavior of older persons. The second factor is the impact of the agricultural activities, the prevailing occupation category among rural residents and their flexibility to older persons abilities without clear shift to retirement.

Although health status is expected to be highly correlated to older persons' ability to work, the analysis revealed that only high levels of disability (5 or more disabilities in ADL) decrease older persons probability of maintaining life long jobs but are substituted for by less demanding bridge jobs. Patriarchal family tradition and the responsibility of sons for supporting their old aged parents were also revealed with the ability of older persons who have at least one son to engaged in less demanding bridge jobs

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compared with those who have no sons and find difficulty in carrying out this step.

In conclusion, this paper investigated correlated to older persons participation in the labor market and their retirement behavior. It reveals the significance strong relationship between the availability of sufficient economic resources to the older persons in their decision to retire or to continue to work. Shortage in these resources is a major factor that drive many of them to maintain working in their old age. Other factors played a significant role in defining the shift between pursuing life long job and engaging in less demanding bridge jobs. These include educational attainment, type of life long jobs, availability of sons, sever levels of disabilities and place of residence.

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