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INDIVIDUAL AND HOUSEHOLDS DETERMINANTS OF WOMEN EMPOWERMENT: APPLICATION TO THE CASE OF EGYPT

Ragui Assaad, Hanan Nazier and Racha Ramadan

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Send correspondence to:
Hanan Nazier
Cairo University
hanan.nazier@feps.edu.eg

Abstract

This research deals with women's empowerment as an outcome of interest by defining the different individual and socio-demographic determinants that affect women's empowerment in the Egyptian society. The paper analyzed two dimensions of women's empowerment; the decision-making and the mobility aspects of Egyptian women. Using the Egypt Labor Market Panel Survey (ELMPS) 2012, we estimated a decision-making index and a mobility index. Our results came in line with the literature; age, education, employment, poverty status, number of children, having an adult son in addition to a woman's husband, and her father's characteristics appeared as significant determinants of empowerment. Further, most of these determinants, showed varying impact depending on the dimension of empowerment studied. The regional context was found to be very important in explaining Egyptian women's empowerment. Context was not only found to be an important determinant of women's empowerment as measured by our two indices, but it was also found to affect the impact of the other individual and socio demographic determinants on women's empowerment.

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ملخص

تناول هذا البحث موضوع تمكين المرأة كنتيجة لمصلحتها من خلال تحديد المحددات الديموغرافية الفردية والاجتماعية المختلفة التي تؤثر على تمكين المرأة في المجتمع المصري. حللت الورقة بعدين هما تمكين المرأة من خلال صنع القرار والجوانب الحركية للمرأة المصرية. باستخدام المسح التتبعى لسوق العمل في مصر 2012 (ELMPS)، قدرنا مؤشر صنع القرار ومؤشر التنقل. وجاءت نتائجنا متماشية مع الأدب. فوجدنا أن عوامل مثل العمر، والتعليم، والتوظيف، وحالة الفقر، وعدد الأطفال، ووجود ابن بالغ بالإضافة إلى الزوج، وخصائص الوالد بدت كلها محددات هامة للتمكين. وعلاوة على ذلك، فإن معظم هذه المحددات، أظهرت آثار متفاوتة تبعا لأبعاد التمكين. وجدنا أيضا أن السياق الإقليمي هام جدا في شرح تمكين المرأة المصرية. ولم يكن السياق محددا هاما فقط لتمكين المرأة وانما تبين أيضا أنه يؤثر على العوامل الديموغرافية الفردية والاجتماعية الأخرى التي تؤثر على تمكين المرأة.

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1. Introduction

Power is the ability to make choices. Therefore, "Empowerment is the process by which those who have been denied the ability to make choice acquire such ability" (SIDA). And according to the World Bank sourcebook on Empowerment and Poverty Reduction, "Empowerment is the expansion of freedom of choice and action".

Empowerment as a concept is relevant to women as well as to other disadvantaged or socially excluded groups; however, it focuses on women due to the fact that it encompasses some unique elements. First, women are a category of individuals that overlaps with all other groups. Second, household and interfamilial relations are of crucial importance to women's empowerment in a way that does not exist for other disadvantaged groups. Finally, women's empowerment requires fundamental changes in institutions supporting patriarchal structures (Khattab and Sakr 2009).

Women's empowerment is a dynamic process of different dimensions: economic, socio-cultural, familial/interpersonal, legal, political and psychological. This presents some challenges when measuring women's empowerment. From these challenges some are distinguished by the literature to be of the most importance; these include the use of proxy indicators instead of direct measures, the lack of the availability and use of data across time, the subjectivity in assessing process and the shifts in relevance of indicators over time (Roushdy 2004 and Malhotra et al. 2002).

The concern about women's economic and social empowerment has been a priority on the agenda of different countries. Moreover, promoting gender equality and empowering women is the third goal of the Millennium Development Goals (MDG). This trend is gaining more emphasis given the positive logic association between poverty and disempowerment, as the inability of providing basic needs often rules out the inability of exercising meaningful choices (Malhotra et al. 2002, Abdel Mowla 2009 and SIDA). Egypt is not an exception, especially now after the revolution of the 25th of January and its second wave of the 30th of June 2013, there is more concern about women's role in the society and economic life as well as inside her household.

In 2011, women represented 50% of the Egyptian population (World Bank 2013); i.e. half of the society. However, this half faces a lot of challenges at different levels. At the employment level, women represented 24% of the labor force in 2010 with an unemployment rate of almost 23%, reaching 4.3 times the rate of men. This rate reached 54% among young females (age 15-24). For wage employment in non-agriculture sector, women's share was very low; almost half of the women in the labor force were in the informal sector. The gender gap and disparities concerning wages remain. In the public sector, this gap was in favor of women, while it was not the case for the private sector (UNDP and Ministry of Economic development 2010).

For education, there is no gender gap in the enrollment ratio. According to the MDGs report for Egypt (UNDP and Ministry of Economic development 2010) the net enrollment ratio reached 96% in 2008/2009. According to the Demographic and Health Survey (DHS), the percentage of females, from 6 to 12 years old, attending school was 88% in 2008. And for secondary education, it is expected to exceed the targeted rate by 2015.

In addition, the MDGs report (UNDP and Ministry of Economic development 2010) shed light on the positive correlation between school attendance and poverty, as it has been found that females belonging to the poorest households are the most vulnerable class in terms of access to education. Only 80% of female children (6-12) in the poorest households have ever attended school compared with 88% of male children for the same category. While for illiteracy, according to the 2006 census, among the 2.5 million illiterates in the age bracket of (15-24), 60% were female.

According to the Central Agency for Public Mobilization and Statistics (CAPMAS), in 2012/2013, 26% of the Egyptian population lived under the national poverty line (327 EGP per person per month); the majority being concentrated in rural Upper Egypt where 49% of population qualifies as living under the national poverty line. In addition, female-headed households have higher probability to fall into poverty. This points to the positive correlation between poverty and empowerment.

Accordingly, a huge effort is needed to improve women's situation in Egypt, especially since the 25th of January 2011 revolution and its second wave of the 30th of June 2013. Mainly, economic, institutional and, social arrangements are required to improve women's empowerment in Egypt, reduce the probability of female falling into poverty, and achieving the third development goal by 2015.

In this context, this paper is concerned with the determinants of women's empowerment in Egypt. Using the Egyptian Labor Market Panel Survey 2012, the paper discusses individual, household and location factors determining women's empowerment, as measured by two dimensions: decision-making power and mobility. The paper is organized as follows. The first section is a review of the related literature. Section 2 describes the methodology. Section 3 presents the data used in the regression. The estimated results are presented in section 4 and finally section 5 concludes.

2. Literature Review

There is a growing body of literature in which efforts have been made to define the concept of empowerment. In this context, different terms are used interchangeably to encompass it. These included autonomy, status, agency, power, patriarchy, and gender equality (Malhotra, Schuler and Boender 2002 and Upadhayay and Karasek 2007).

In addition, this literature has conceptualized and defined empowerment in various ways (Ibrahim and Alkire 2007)[1]. In brief, there is an agreement that the concept of empowerment includes some key overlapping terms that are identified as most common in defining empowerment; these are options, choice, control, and power. These terms refers mainly to women's ability to make decisions and affect outcomes of importance to themselves and their families (Malhotra, Schuler and Boender 2002). Moreover, it contains the idea of human agency— self-efficacy, referring to the fundamental shift in perceptions, or "inner transformation," as it is essential to the formulation of choices made. Meaning that, women should be able to identify self-interest and choice, and consider themselves as able and entitled to make choices (A. Sen 1999; G. Sen 1993; Kabeer 2001; Rowlands 1995; Nussbaum 2000; Chen 1992).

Kabeer (2001a) defines empowerment as "the process by which those who have been denied the ability to make strategic life choices acquire such ability". This definition is considered a useful and widely accepted definition of empowerment as it captures what is common in other available definitions and can be applied across the range of aspects that development efforts are concerned with. In addition, this definition is precise enough to distinguish it from the general concept of "power," as exercised by dominant individuals or groups as it makes clear that only those previously denied such abilities can be considered to be empowered. Besides, Kabeer's definition distinguishes empowerment from other closely related concepts through the idea of process, or change from a condition of disempowerment (Upadhyay and Karasek 2010; Malhotra, Schuler and Boender 2002; Mosedale 2005).

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[1] For a detailed survey on different definition of the concept, see Malhotra, Schuler and Boender (2002) and Ibrahim and Alkire (2007).

The available literature has attempted to develop a deep and broad understanding of empowerment through breaking the process down into key components. According to Kabeer (1999), the process of empowerment is the result of the interaction between three interrelated components, *resources*, *agency* and *achievements*. Resources are enabling factors that shape conditions under which choices are made and put into effect. Agency is at the heart of the process through which choices are made. It includes the ability to make strategic choices, and to control resources and decisions that affect important life outcomes. Finally, achievements refer to the outcomes of choices. According to Narayan (2005), the process of increasing power is considered as the result of the interaction between two building blocks: agency and opportunity structure. Kishor (2000) defines evidence, sources and settings as the three critical components of empowerment. Chen (1992) describes resources, perceptions, relationships, and power as the main components of empowerment. England (2000) conceptualized empowerment in terms of objective bases of power that comprise economic resources, laws and institutional rules, and norms held by others, and subjective states that embrace self-efficacy and a sense of entitlement. Resources and agency (in various forms and by various names, e.g., control, awareness, voice, power) were the two most common components of empowerment emphasized in the literature.

Available empirical research tackling women's empowerment falls in the domain of development studies literature, specifically contributions to economics and population studies, in addition to feminist involvements in the field. Studies within the neoclassical economic theory shifted from the earlier unitary household models to alternative household collective models in order to allow for inequalities in decision-making power within the household (Kabeer 1999). These models focus on the household members as the unit of analysis and permit them having different preferences and bargaining power. The latter is considered the main source of power. Bargaining power depends on the relative resources a female is able to control independently of other household members. The common conclusion of all these models is that changes in individual-specific control of resources translate into changes in power and hence changes in household resource allocation patterns (Roushdy 2004).

Empowerment is referred to in the population studies literature often through autonomy, under the objective of examining the relationship between the degrees of autonomy permitted to women in different contexts and different demographic outcomes. Women's empowerment in these studies is proxied by various variables that are believed to affect women's autonomy. This includes women's education and employment status, marital practices such as patterns of post-marital residence and prevalence of polygamy; female mobility in the public domain; the ability to inherit, retain and dispose property; and norms determining the continuity of relationships between married women and their natal kin. Thus, the discipline of population studies takes greater account of structures than does economics (Kabeer 1999).

Finally, the feminist approach played an important role in highlighting the institutionalized nature of gender inequality and hence women empowerment. Feminist place a great deal of emphasis on the significance of intangible resources to empowerment, these include voice, public presence, internal strength and confidence, collective organization, reflection and analytical skills, information, political participation and knowledge. They view empowerment as a process of social change at different levels and in various domains. This view of empowerment involves a degree of indeterminacy related to the role of men in the processes of women's empowerment as well as the relationship between individual and structural changes. The indeterminacy of the processes of empowerment, the intangibility of many of its determinants, the focus on males' role in the project for women's empowerment, and the persistence that empowerment must be self-generated rather than offered are main features that distinguish this view of empowerment (Kabeer 1999).

The empirical literature concerned with women empowerment can be divided into two main groups. The first group examined determinants of empowerment, i.e. empowerment in itself

was the outcome of interest, while the second group considered empowerment as an intermediary factor to examine effects of empowering women on other developmental outcomes of interest. Because empowerment is a multidimensional concept that encompasses economic, socio-cultural, familial/interpersonal, legal, political, and psychological, issues, studies differed in terms of the how they measured empowerment. Some used indirect measures using a single observable characteristic, such as women's education, labor force participation rates and earnings, as a proxy of empowerment. While others used direct measures, which is a combination of observable indicators that are grouped into different dimensions of empowerment including economic decision-making; child-related decision-making; marriage related decision-making; freedom of movement; power relations with husband; access to resources; self-esteem and, control over resources. Studies also differed with regard to level of analysis; with the majority of them heavily concentrated at the individual and household level compared to the aggregate levels.

The indirect measures were extremely criticized particularly when used to analyze the effects of empowerment (Balk 1994; Jejeebhoy 1991; Vlassoff 1994). First, proxies for empowerment are context dependent, rendering comparative research inaccurate. Second, proxy measures do not afford adequate evidence for how well they capture empowerment dimensions. Third, proxies alter the channels through which empowerment works. Finally, since empowerment compromises multiple dimensions, proxies obscure which dimension is being measured (Whyte 1978; Agrwala and Lynch 2006). Direct measures managed to tackle many of the inadequacies of the indirect-measure approach. They have explicitly quantified the mutli-dimensionality of empowerment, thus clarifying the determinants and consequences of each dimension. In addition, direct-measures enlightened the channels through which economic and social factors such as education and labor force participation affect empowerment, rather than confusing its causes and effects (Goetz and Sen Gupta 1996; Kritz and Makinwa-Adebusoye 1999; Mason 1997; Agrwala and Lynch 2006).

Concerning empowerment as the *outcome of interest*, which is the interest of this paper, most of the empirical analyses interested in the determinants of women's empowerment are heavily concentrated at the individual and household level. This concentration at the individual /household level could be due to the importance of the household to gender relations and hence empowerment. In addition operationalizing different components of women's empowerment in a concrete manner is more feasible at the household level rather than at larger levels of aggregation (Malhotra, Schuler and Boender 2002). The majority of these studies used direct measures of empowerment with a geographical bias toward South Asian countries (Hashemi *et al.* 1996; Malhotra and Mather 1997; Mason 1998; Zaman 1999; Jejeebhoy 2000; Mason and Smith 2000; Jejeebhoy and Sathra 2001; Parveen and Leonhauser 2004; Kamal and Zunaid 2006; Gupta and Yesudian 2006; Allendorf 2007; Anderson and Eswaran 2009; Khan and Awan 2011; Vanghese 2011).

The majority of the reviewed studies adopted logit/probit models (Hashemi *et al.* 1996; Mason and Smith 2000; Malhotra and Mather 1997; Kamal and Zunaid 2006; Gupta and Yesudian 2006; Allendorf 2007; Roy and Niranjan 2004) depending on the nature of the dependent variable. Most of these studies measured women's empowerment using a binary dependent variable. This variable was usually constructed from variables reflecting power over domestic decision-making in different fields (e.g. finances, resource allocation, spending, expenditures, social and domestic matters like cooking, child-related issues such as well-being, schooling, health, employment and fertility); variables concerning access to/or control over resources (cash, household income, assets, unearned income, welfare receipts, household budget, participation in paid employment), and variables reflecting freedom of movement. Some other variables were used but to a lesser extent, these included some measure of relations with the husband (whether they communicate or she fears him) and attitudinal variables (attitudes

toward gender equality). Other studies used an ordinal variable, such as the number of domains in which the woman makes decisions. In such cases, multinomial or ordered logit or probit models were estimated (Hashemi *et al.* 1996; Mason and Smith 2000; Malhotra and Mather 1997; Kamal and Zunaid 2006; Gupta and Yesudian 2006; Allendorf 2007; Roy and Niranjan 2004 and Khan and Awan 2011).

Theoretically it has been hypothesized that determinants of empowerment include control over material resources (such as land, livestock, and having labour earnings), human assets (such as education and health), socio-demographic characteristics (age, family size, family structure, etc.), psychological characteristics (believes about self-efficacy) and social norms both formal and informal. In general, evidence showed that all those factors have significant associations with many direct measures of empowerment. However, the relative importance of each of them differs among different dimensions of empowerment and contexts (Samman and Santos 2009).

The literature is rich by studies focusing on women's empowerment determinants in developing countries these mainly being South Asia countries. Kamal and Zunaid (2006) used 2004 DHS data from Bangladesh to examine determinates of women's empowerment measured by three indicators: a binary variable on whether women are able to spend their money on their own, an Index of woman's decision- making ability and an index of woman's mobility. They reported marital status to be the most significant predictor of empowerment, secondary education was also more important compared to asset ownership. Allendorfs (2007) study of Nepal showed that women's place in the family structure (whether they are the wives in the household rather than a daughter-in-law or sister in-law) is the most influential source of empowerment. Landownership, receiving payment in kind, level of education, livestock ownership, caste and ethnicity were also associated with greater empowerment. Parveen and Leonhäuser (2004) found strong positive effects of formal and non-formal education on women's empowerment in Bangladesh, in addition to information media exposure and mobility, while traditional socio-cultural norms had a strong negative effect. Also for Bangladesh, Anderson and Eswaran (2007) focused on the relative contributions of earned versus unearned income (measured by ownership of assets inherited or given as marriage payments) in enhancing women's empowerment and the role of employment outside of their husband's farm. Their estimations confirmed that earned income rather than asset ownership is more important in empowering women. Results also revealed that it is not employment per se but employment outside their husbands' farms that contributes to women's empowerment. Using DHS data on India, Gupta and Yesudian (2006) considered four dimensions of women's empowerment: household autonomy, mobility, and attitudes toward gender and towards domestic violence. They confirmed that women's education is an important and consistent predictor of all dimensions of women's empowerment. Age and media exposure are positively associated with freedom of movement and attitudes of gender equality. Household standard of living predicts household autonomy and gender equality, while age and education alone are negatively associated with attitudes to domestic violence. The study by Malhotra and Mather (1997) for Sri-Lanka analyzed determinants of two dimensions of empowerment: financial matters decision-making and decision making in social and organizational matters. Their results showed that women's education and employment were highly associated with their control over financial matters, while a more complex set of factors related to women's stage in the life course and her family structure were more associated with their control over social and organizational matters. Kan and Awan (2011) used household data from Pakistan in 2005-06 to evaluate determinants of two dimensions of women's empowerment: family planning and economic decision-making within the household. Results suggested that the number of children not the sex of a child is more relevant in enhancing women's empowerment. Further, the common determinants of empowerment (education, age, and employment status) depict varying degree of effectiveness depending on the specific dimension of empowerment, with

education having a significant effect for both dimensions while age and employment status are only significant for the economic decision making dimension. Furthermore, geographic divisions within Pakistan, significantly explained empowerment of women. Finally, the study of   Varghese (2011) for Oman confirmed the importance of common determinants - income, education, employment status, acquisition of assets and media exposure- on a compounded women empowerment index. However, this study did not differentiate between the effects of such determinants on each empowerment dimension separately.

Other studies tried to take context into consideration by analyzing determinants of women's empowerment in more than one area inside a single country or in more than one country. Mason (1998) used data for five Asian countries (Pakistan, India, Malaysia, Thailand and the Philippines) to measure the effect of social context in terms of gender and family systems, and women's and household characteristics, e.g., land assets, participation in waged work, and the wife's rank relative to husband on women's empowerment measured as their say in household expenditure decision making. The studies by Jejeebhoy (2000) for Uttar Pradesh and Tamil Nadu India and Jejeebhoy and Sathar (2001) for the same two areas in India and Punjab Pakistan, found traditional sources to be more important determinants of autonomy in Punjab and Uttar Pradesh than in Tamil Nadu – namely, co-residence with a mother-in- law, size of dowry, age, and number/gender of children. In Tamil Nadu, the only traditional factor that mattered was age. Education and work status predicted empowerment in all three sites but far more in Tamil Nadu than in Uttar Pradesh and Punjab, where only secondary education mattered. For variables reflecting context namely nationality, religion and region, only region was important; they consider region to proxy the cultural context, specifically prevailing social institutions that condition gender.

Finally, studies that examined determinants of women's empowerment using indirect measures are rare and concentrated at higher aggregate levels. Despite the critiques of these types of studies they enjoy an advantage over direct measures studies, which is tracking the change in empowerment measures over time. Winter (1994) analyzed employment and earnings data from a variety of national household surveys in the 1980s for Brazil, Chile, Colombia, Costa Rica, Honduras, and Venezuela. He measured the effect of employer's policy interventions in women's formal sector work (hiring and wage behavior) on empowerment measured by women's labor market position (labor force participation rates, occupational sex segregation, gender wage differentials, childcare accessibility, and labor laws). Results revealed that women's labor market position has improved, although there are still significant personal costs to women. Protective laws, maternity protection laws, and laws on childcare may raise the cost of hiring women. Equal pay provision is often ineffective and discrimination explains much of the gender wage gap. Another study by Tzannatos (1999) analyzed the International Labor Organization data from 1950s to 1990s for multiple countries and regions. The study used similar measures of empowerment as Winter (1994) reflecting women's labor market position (labor force participation rates, occupational sex segregation, and gender wage differentials). Results showed that that there has been a rapid improvement in women's labor market position and hence empowerment. Mayoux (2001) studied women empowerment in Cameroon. The measures of the empowerment were control over income and development of collective social and economic activities. The independent variables were microcredit participation and social capital (kinship, neighborhood and market networks). The result showed that use of existing forms of social capital to channel microcredit limits benefit women, especially the poorest women. Finally, a recent study by Chaudhang et al. (2012) used data for the period of 1996 to 2009 for Pakistan. It examined how consciousness /sensitization of women about their rights measured by female secondary school enrolment, economic empowerment of women measured by female labour force participation, and women's overall development proxied by gender

development index can help in fostering women's empowerment as measured by Gender Empowerment Measure (GEM) index. Results revealed that consciousness of women about their rights, economic empowerment of women and women's overall development have positive and significant effect on women's empowerment. Results confirmed the existence of a bi-directional causality between women's overall development and women's empowerment and a unidirectional causality between sensitization of women and women's empowerment.

As for studies tackling women's empowerment in Egypt, Kishor (1995), Khatab and Sakr (2009) and Abdel Mowla (2009) attempted to assess factors affecting women's empowerment in the Egyptian case. Kishor (1995) used the 1988 Egypt Demographic and Health Survey (EDHS) to examine the effect of several modernization, economic, and cultural factors on three different direct measures of empowerment. First, the customary autonomy index was used to measure the extent to which women believe they should have the say in decision related to matters women traditionally would have control over; mainly family planning and children education and marriage. Second, the noncustomary autonomy index that measured the extent to which women believe they should have decision-making powers in general and in areas outside their traditional roles; like visits to relatives and household budget. Finally, the realized autonomy index measured the extent to which women perceive that they have decision-making powers and freedom of movement. The determinants of empowerment used by this study included household characteristics (region and socio-economic index), individual characteristics (education exposure to media, migration history, and employment status), husband characteristics (education and profession) and cultural variables (age, religion, marriage pattern, post marital residential arrangement and number of children by gender). Using ordered logit regression; results showed that while most factors have a similar impact on the indices of customary autonomy and noncustomary autonomy, they do not always have the same impact on the realized autonomy index. Modernization efforts that affect women's individual characteristics, like women's own education, affect women mostly by altering their views about women's role in decision-making. While modernization efforts that affect the circumstances in which women live, such as the level of education of her husband, affect her realized level of autonomy most. The impact of employment on empowerment is different for each dimension. Realized autonomy is the only aspect that is significantly affected by women work, irrespective of whether they control their earnings or not and whether they earn cash or not for the work they do. The other two dimensions as measures of perceptions about women's roles is not affected by employment per se, but by access to, and control over, earnings derived from employment. Finally, only a few cultural variables affect any of the aspects of empowerment directly, realized autonomy is lower among women who are Muslim, who live in large, households, who are remarried and who have greater number of children irrespective of their gender.

Khattab and Sakr (2009) used data from the Egypt labor market survey of 2006 to investigate determinates of women's empowerment in Egypt. This study focused on the economic dimension of women's empowerment as measured indirectly by female participation in the labor market. It utilized a comparative description approach to analyze the effect on women's economic empowerment on four different factors: women's point of view for not participating in the labor market, social values (husband and wife's' view of whether women should be allowed to work), work conditions (stability, duration, right to occupy leadership position) and female financial autonomy. The study found that a higher unemployment rate, a longer duration of unemployment that faces women compared to males, lack of access to education, and social norms are the major factors that hamper economic empowerment of women in Egypt. Social norms were especially important and reflected in a separation and conflict between accepting women work while refusing their financial autonomy. Such result highlights the shortcomings of indirect measures like labor force participation as a true reflection of empowerment.

Finally, Abdel Mowla (2009) also used the 2006 ELMPS to examine the effect of the level and type of education on women economic empowerment in Egypt. Women's economic empowerment was proxied by two indirect measures: (1) economic participation, measured as female labor force participation, probability of escaping employment and strengthening job search behavior; (2) economic opportunity, measured by wage work and escaping vulnerable employment, escaping low quality job and overcoming occupational segregation. It was found that education has a powerful impact on both measures of women's economic empowerment in Egypt. Women are found to benefit more than men do from higher education in terms of improving their labor market outcomes. However, it was also evidence that raising female education level is not enough to boost women's economic empowerment; improving education quality is crucial as well.

Examining the impact of women's empowerment on other development outcomes namely, health outcomes occupied most of the attention in the literature on Egypt. In general, results confirmed what was found in other studies tackling the same issue for other countries or regions. Kishor's (1995) study mentioned earlier showed that there exits positive effects of higher women's mobility and participation in household decisions concerning children on contraceptive use and child survival. Govindasamy and Malhotra (1996) focused on women's empowerment impact on contraceptive use and fertility decisions using 1988 DHS data. Empowerment was measured by three dimensions: freedom of movement; women's perception of their weight in household decisions; and women's opinion on who should control the household budget. They found that empowerment indicators have a positive impact on women's attitudes about family planning. This effect is stronger than the effect of education and employment. In addition, each of the three considered indicators did not affect family planning decision-making preferences in the same way. Kishor (2000a) who used data from the 1995-6 EDHS found similar results. However she used a mixture of direct (women's role in household decision making and freedom of movement) and indirect (education and participation in waged work) measures of women empowerment. Kishor (2000b) used the same set of data as Kishor 2000a to examine the impact of empowerment on infant mortality and child immunization status. She used 32 indicators of behavioral and attitudinal factors grouped into 10 dimensions of empowerment. Her results stressed the importance of measuring all the dimensions of empowerment, as different dimensions are relevant to different development indices. Roushdy (2004) used the Stalled Fertility Transition project SFT to examine the effects of the women's empowerment on children's schooling and nutrition. The results proved that women's empowerment has a positive impact on investments in their children. Moreover, this influence functioned differently for boys and girls, and for educational and nutritional outcomes. In addition, parents' preferences towards sons and daughters are not identical. Finally, Namoro and Roushdy (2009) used the 2006 Egypt Labor Market Panel Survey to estimate and compare the effects of parent-specific characteristics, specifically the educational attainment and the contributions made by the mother and the father to marriage costs, on children's welfare measured as the cohort-mean adjusted years of education. The results confirmed those reached by the previous study of Roushdy (2004), mothers' and fathers' characteristics had different effects on children's education. In particular, the mother's contribution to marriage costs, unlike the father's, positively affected child schooling. The effect of parent's educational attainment was even more distinguished. Though the educational attainment of both parents has a significantly positive effect on boys' education that of the father has a more favorable effect on girls' education compared to that of the mother. Results also showed that residence in rural areas had a negative effect on girls' education but not on boys' education.

According to our review of available literature on women's empowerment in Egypt, it is obvious that there are some gaps that need to be covered. There is a lack of studies that tackle

determinants of different dimensions of women empowerment other than the economic dimension. Available studies-with the exception of Kishor 1995- focused on one dimension, which is economic empowerment. In addition, those studies used indirect measures of empowerment. Even Kishor's study (1995) used relatively old data -for the year 1988- that mainly measured perception[2] of empowerment not actual empowerment.

Hence, this research is an attempt to overcome the previously mentioned gaps by tackling two dimensions of women empowerment: mobility and decision-making inside households. More precisely, the paper focused on the determinants of women's empowerment in Egyptian households using the Egypt Labor Market Panel Survey 2012. The paper focused on the decision-making aspects of women's empowerment inside her household, mainly decisions about households' purchases and decisions related to children, in addition to the mobility aspects. Hence, direct measures of empowerment are used. Furthermore, the macro level differences in women's status were tackled through using location variables. Moreover, given the important correlation between poverty and women empowerment (SIDA), the paper is considered a first attempt to analyze the impact of poverty on women's decision-making power and mobility. Accordingly, the poverty status of women is added as determinant of her empowerment.

3. Methodology

The study measured women empowerment using two indicators: decision-making power and mobility of women in the Egyptian society. According to the SIDA Studies decision making power is based on responses to questions about the role of the women in some decisions inside her household; such as large purchases within the households, what food to be cooked, getting medical treatment…etc., this is known as "*agency empowerment*". For mobility, it is based on whether the woman needs permission or not for going to local market, health center or visiting friends and families.

More precisely, the paper is an attempt to analyze the main individual and socio demographic determinants of the decision making power of Egyptian women inside their household in addition to their mobility. This is reached through two steps. In the first step we constructed two empowerment indices for decision-making (DI) and mobility (MI) of Egyptian women. Using factor analysis, the DI and MI are constructed based on the answers of several questions concerning woman's intervention in household's decisions and her mobility[3].

Utilizing ordinary least square, the decision making index and the mobility index were estimated as follows:

For decision index: $DI = X\beta + \varepsilon$

For mobility index: $MI = X\alpha + \mu$

Where X is a set of regressors including individual characteristics, household characteristics, poverty status, father's characteristics, and husband's characteristics in addition to geographic dummies[4]. ε and μ are the error terms. Finally, β and α are the two sets of parameters to be estimated for the two models.

Based on the regressors included, we ran 3 groups of regression for each index: the first one included only individual, socio demographic characteristics and poverty status of women included in the sample, the second one included these later in addition to dummies for the six

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[2] This is due to the formulation of the questions in the EDHS 1988.

[3] For more details about the construction of the decision-making and mobility indices, see appendix 1.

[4] More details of variables included in the analysis are provided in appendix 2.

Egyptian regions. Finally the third regression included the first set of variables in addition to governorate/urban dummies.

The basic regression includes a set of individual characteristics. This included woman's age in years (*age*) and its square (*age2)* in order to take into consideration the non-linear effect of age and the difference between her age and her husband's age (*age gap*). Following the literature, education and employment status are included in the regression as important determinants of women's empowerment. Similarly, we included the husband's employment status to take into consideration its impact on the decision power of his wife inside the household in addition to her mobility.

The position of the woman in the household can affect her decision making power as well as her mobility. To account for that; the status of the respondent as a daughter- in-law in the household is included (*Daughter- in- law)* in addition to her status as *Permhead* if her husband is absent and she is the head of the household or *Nothead* if her husband is absent and she is NOT the head of the household.

The socio-economic status and background of both the woman and her family is also expected to affect her decision making power. This is captured in our model by using the woman's contribution to the marriage costs as well as some the father's characteristics. Contribution to marriage is measured by two variables. First is the number of durables she brought at the time of marriage (*Durables)*. Second is her share and her family's share in the marriage costs (*Share marriage cost)*.

Finally, the poverty status of the respondent is one factor that is expected to affect her decision-making power and mobility; however, it was missing in previous analysis of woman empowerment in the Egyptian context mainly due data availability. A recent paper by Assad et al. (2014) provided the required estimates for individual poverty in the 2012 ELMPS . Using these estimates we managed to include poverty status in our explanatory variables as reflected by the per capita expenditure[5] of each household. The model included 4 dummies for the highest 4 per capita expenditure quintiles. The poorest quintile is considered as the reference category.

The second set of variables included reflected household structure, the model included *the number of adults inside the household* and if the respondent has an adult son living with her inside the household *(adult son)*.

The other two versions of the regressions included, in addition to the individual and household characteristics, geographic variables, in order to take into consideration the impact of the location on women's empowerment. The second model included the variable *Region* that captures the impact of being in any of the six regions of Egypt on woman's empowerment. These 6 regions are: Greater Cairo, Alexandria and Suez Canal; Urban Lower Egypt; Urban Upper Egypt; Rural Lower Egypt and Rural Upper Egypt. Finally, the third version of the model included governorate dummies and whether they are urban or rural instead of the Region variables.

4. Data

The data used in this paper is drawn from the Egyptian Labor Market Panel Survey (ELMPS) for 2012. The Economic Research Forum (ERF) in cooperation with Egypt's Central Agency has carried out the ELMPS for Public Mobilization and Statistics (CAPMAS) since 1998. The ELMPS 2012 is the third round of this periodic longitudinal survey that tracks the labor market and the demographic characteristics of households and individuals interviewed in 2006, both individuals included in the ELMS 1998 and individuals added in 2006; as well as a refresher

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[5] Per capita expenditure used in this paper is obtained from Assaad el al (2014)

sample of 2,000 new households to ensure that the data continues to be nationally representative, with a total sample of 12,060 households and 49,186 individuals. The ELMPS is considered a wide-ranging, nationally representative panel survey that covers topics such as parental background, education, housing, access to services, residential mobility, migration and remittances, time use, marriage patterns and costs, fertility, women's decision making and empowerment, job dynamics, savings and borrowing behavior, the operation of household enterprises and farms, besides the usual focus on employment, unemployment and earnings in typical labor force surveys.

Our research focuses on 8837 married women, in 8568 households, aged between 15 and 49 years old, with an average age of 31 years old. Concerning the distribution of the sample, Table 1 shows that 40.61% of the sample is between 25 and 35 years old and 16.77% of the sample lives in Great Cairo, Alexandria and Suez Canal. The remaining is distributed between Lower and Upper Egypt in both rural and urban areas. Finally, 58.74% of the sample lives in the rural areas.

Table 2 shows the distribution of our sample among different education groups in both urban and rural areas in addition to all Egypt. Around 27% of the sample is illiterate. This percentage is lower in urban areas (15.27 %) while it is higher in rural areas reaching 35.32%. Most of females in our sample have secondary education with 37.35%, 40.25% and 35.32% in all Egypt, urban and rural areas respectively.

For employment status most of women in our sample are unpaid workers or nonemployed (86.31%). This share is more important in rural areas (89.27%) than in urban ones (82.06%) (Table 3). Women in our sample are working mainly as wageworkers in the government sector with 9.46%, 13.4% and 6.72% in all Egypt, urban and rural areas respectively (Table 3).

Concerning poverty status Table 4 shows the distribution of our sample according to the per capita expenditure quintiles. Around 29% of the sample is poor, while only 9% are in the top quintile.

As described above, women's empowerment is measured here by decision-making power and mobility indices. Table 5 and 6 show the distribution of our sample of interest for each of the questions of decision-making index and mobility index respectively.

For the decision making part, women mainly take the decisions alone when it is related to daily purchases and what should be cooked daily. For large purchases, visits to family and friends, getting medical treatment, taking children to the doctor or buying clothes for themselves and/or the children, most of women in our sample make these decisions with their husbands (Table 5).

For the mobility dimension, most of women of our sample need permission before going to the local market (43.78%) or to the health center (51.09%), before taking children to the health center (45.71%) or visiting families and friends (62.41%). It is worth noting that the going to local health center is the most restricted place for Egyptian women in our sample as 32.27% of our sample cannot go alone as compared to 16.78%, 24.76% and 19.26% of the sample cannot go alone to local market, take children to health center and go to friends or relative house respectively.

Table 7 shows the distribution of our sample in urban, rural and all Egypt, according to the different quartiles of the decision-making index. For rural areas the percent of women falling in the first quartile of our decision making index is higher than in urban areas, while for the forth quartile the percent is higher in urban areas. This suggests that women in urban areas are more empowered than in rural ones. At the aggregate level, around 27.93% of women fall in the first quartile, i.e. the least empowered, as compared to 20.98% in the highest quartile.

Empowerment is associated positively with age. The mean of age of women increases with each quartile, from 29 years in the first quartile to 35 years old for the fourth quartile (Table 8).

For education level, Table 9 shows that the education status of illiterate and that of secondary education compromise the biggest share in all four quartiles; this is expected as these two categories occupy the biggest share in our sample (27% and 37% for illiterates and secondary education respectively). As expected the share of the number of those who are illiterate decreases with higher quartiles and the share of women with secondary education increases, suggesting a positive association between empowerment as measured by our decision-making index, and education status. This is also emphasized in the share of women with university education and above, it reached 15.68% for the fourth quartile compared to 9.91% for the first quartile.

Turning to employment status, Table 10 displays a negative relation between empowerment, as measured by decision making index, and being out of the labor force; about 83.67% of those who fall in the first quartile are out of the labor force compared to around 68.12% of those in the fourth quartile. Interesting is that the unemployed share is lower in the first quartile (5.63) compared with the highest quartile (7.77%). Finally, a positive relationship between empowerment and being employed is evident for all types of employment with the exception of the unpaid family worker.

When looking at the same descriptive statistics for the mobility index, we found that 28.13% of women in urban areas fall in the first quartile, compared with 25.58% of rural areas. While for the highest quartile, there are 20.97% of urban areas and 21.58% of rural areas. This result suggests that women in rural areas are more empowered, when empowerment is measured by mobility index. As found in the decision making case, the mean of age of women increases with each quartile, from 30 years in the first quartile to 33 years old in the fourth one.

For education, surprisingly, we found that the share of illiterate is higher in the highest quartile of mobility index (28.05%) compared with lowest quartile (26.41%). While 16.82% of women of the lowest quartile had university education or above, compared with only 15.06% of the highest quartile.

Concerning the relation between mobility index and employment status, the results show that around 81.47% of those who fall in the first quartile are out of the labor force compared to 70.56% of those in the fourth quartile. The unemployed share is higher in the fourth quartile (6.53%) compared with the first one (5.4%). Finally, and as the decision index, a positive relationship between mobility index and being employed is evident for all types of employment, with the exception of the unpaid family worker [6].

5. Empirical Results

As described above, three models for each empowerment index were estimated. The estimated parameters for the six regressions are available in appendix 2. In the first set of regressions, we only included individual characteristics, household's characteristics, father, and husband's characteristics. Results showed that Egyptian female's empowerment, as measured by both the decision-making index and mobility, shows an increase with age then starts decreasing.

Higher education level has a positive impact on women's empowerment as measured by the decision-making power index. Having a secondary education or university and post university degree as compared to being illiterate, increased empowerment of Egyptian females' decision-making indices. Surprisingly the opposite was evident for the mobility index. Higher education

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[6] Tables for descriptive statistics of the mobility index is provided in appendix 2.

levels had a negative impact on mobility; having a post-secondary degree or university and post university degree as compared to being illiterate decreases Egyptian women mobility.

It is also evident that employment status has an important positive impact on women's empowerment. However, the relative importance of employment categories varied according to the empowerment dimension under investigation. Being in any employment category, with the exception of formal wageworker in the private sector, unpaid family worker and unemployed as compared to the outside labor force, increased empowerment as measured by the decision-making power index. While, for the mobility index all employment status categories as compared to the outside labor force had a positive effect on Egyptian women's empowerment.

As expected Egyptian women whom husbands are absent and are permanent head of the households have higher decision-making power and higher mobility as compared to those whom husbands are present. Women's decision-making power and mobility is positively affected by the number of kids she has. Being a daughter-in law-decreased the decision making power but had no significant effect on mobility. The presence of other adults in the household has a negative significant impact on her decision making power and a relatively weaker but still negative impact on her mobility. The presence of an adult son living in the same household decreases her empowerment as measured by the decision-making index but increases her mobility.

Moreover, the difference between the woman's age and her husband's age has a significant negative impact on both her decision-making power and mobility. In addition, our results showed that husbands working as wage workers in the government or wage worker, employers or self-employed in the agricultural private sector have a negative significant effect on women's' decision making power as compared to unpaid or non-employed husbands. On the other hand, husbands being wageworkers in the public sector or in the nonagricultural private formal sector inside establishment have a positive impact. For the mobility index, the husband's employment was relatively less significant. Husbands working as wageworkers in the government or self-employed in the agricultural sector have a negative significant effect on mobility as compared to unpaid or non-employed husbands. While being a wageworker, whether informally or formally, in the non-agricultural sector inside an establishment had a positive impact on his wife's mobility.

Poverty status of the respondent is one important factor that is expected to affect her decision-making power and mobility. In our case, the results showed that poverty status is a significant factor determining empowerment only for the middle-income class. Being in second, third or fourth income quintile, compared to the lowest, increases women empowerment as measured by her decision making index, while being in the second or third income class increased women mobility. Higher income quintiles were insignificant in both cases.

Concerning women's economic status and background, we found that the more important her share in marriage cost the more empowered she is for both decision-making and mobility indices. The father's education levels, except for intermediate and post university levels, compared to being illiterate have positive significant impact on her decision making index. While for her mobility, only university and post-university have significant impact, the first one decreases her mobility while the later increases it. Having, a father who is an unpaid family worker or with no job had a negative impact on the decision making power of his daughter as compared to a wageworker. For the mobility index having, an employer or a no-job-father decreased her mobility.

The second set of regressions included, in addition to the individual and socio demographic variables, region dummies for the five regions of the sample[7]. Our results showed that being in any of the five regions compared to Greater Cairo, decreases women empowerment as measured by both the decision-making and mobility indices. Results for other variables included in the decision-making index came mostly in line with the results of the previous regression with the exception of poverty status, share in marriage costs and number of goods bought at time of marriage. For the poverty status second expenditure quintile still has a positive effect, the fifth quintile turned to a negative and significant effect instead of insignificant while the third and the forth quintiles lost their significance. Finally a woman's share in marriage costs lost its significance while the number of durable goods she brought at time of marriage became weakly significant with a negative impact. Concerning the Mobility index, results came even more in line with results of the first set of regression. The only difference was in the poverty status where the effect of the forth quintile became insignificant.

In the final set of regressions, an interaction term of the rural/urban variable with the governorates variable is included in addition to the variables already included in the first set of regressions. Generally in the decision making index, all of the interaction terms were significant with the exception of urban Alexandria, urban Gharbia and urban Ismailia. Moreover significant interaction terms in any other governorate -whether rural or urban - decreases the decision making power of women as compared to those in Cairo governorate. While for mobility, for women living in any of the significant governorates, interaction terms decrease women's mobility compared to Cairo.

 In the decision making index regression education status is now more significant in determining the decision making power of women; now all education levels, except being literate with no certificate, are significant determinants of decision making power as opposed to being illiterate. For employment, being an unpaid family worker now significantly decreases decision-making power while being a wageworker in private formal or informal sector has no effect as opposed to being outside of the labor force. This suggests that being a public wageworker, employer, or self-employed are the main employment categories that enhance the decision-making power of Egyptian women. Women who are not the head in the absence of their husbands are more empowered than those whose husband is present. Interestingly, controlling for location the richer women are now less empowered as the low-income quintiles lost their significance while the fourth and fifth poverty quintiles have a significant and negative effect on the decision making power of women. Finally, age gap between the woman and her husband, share in marriage costs and her father's education lost their significance. Concerning the mobility index controlling for location had a less pronounced impact on the effect of other variables. Employment status is now less important as formal wageworker in the private sector, unpaid family workers and unemployed lost their weak effect. Similarly, the age gap between a woman and her husband as well as the number of adults in the same household lost their significance. Interesting when controlling for location the same result –as in the case of decision making index- was reached concerning the effect of expenditure quintiles on the mobility index; richer women are less mobile.

It is worth noting that including the regions variable in the second set of regressions and the urban/rural governorates interaction terms in the third regression increased the explanatory power of the model significantly as reflected in the adjusted R2 for both indices. This highlights the importance of location and local context as important determinants of women's empowerment.

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[7] Alexandria, Suez Canal and Port Said, Urban Lower, Urban Upper, Rural Lower and Rural Upper. While Greater Cairo is the reference region.

6. Concluding Remarks

The present study analyzed the impact of the individual, socio demographic characteristics, and poverty status and location variables on Egyptian women's empowerment. This was measured by the decision-making index and the mobility index. Our results showed that individual and socio demographics characteristics may have a different impact on women's empowerment based on which dimension is under investigation, decision-making power or mobility. For instance, higher education was found to have a positive significant impact on Egyptian women's empowerment as measured by the decision-making index and a negative impact on their mobility. For employment status, the relative importance of some employment categories varied according to the empowerment dimension under investigation. Being inside the labor force increased women's mobility no matter her employment status was, as opposed to being outside labor force which had a positive effect on the decision making power. Husband employment was relatively less significant for the mobility index as compared to the decision making index; a similar conclusion was evidenced for her father's education.

Geographical context was found to be very important in explaining Egyptian women's empowerment. The increasing R-squared in the last two regressions for the decision and mobility indices -when regional and governorates dummies were included- proved the crucial effect of context on women's empowerment.

Context was not only found to be an important determinant of women's empowerment as measured by our two indices, it affected as well the impact of the other individual and socio demographic determinants on women's empowerment. Again this effect varied according to the empowerment dimension. For the decision making index, including the regional variables increased the importance of education as all education levels became significant with a positive effect. Meanwhile, employment, more precisely being a wageworker in private sector lost its significance. Moreover, the importance of the socio economic status, measured by woman's share in the marriage cost and father's education decreased when location variables were included.

Interestingly, taking into account geographical context did not only change the magnitude of the effect of poverty status, but its direction as well. Being in the second and third quintiles of the expenditure distribution lost their significance on Egyptian women's empowerment as measured by the decision making index. The fourth quintile remained significant but changed its sign from positive to negative. And the fifth quintile became negatively significant. Accordingly, richer women in Egypt are less empowered. This is considered a paradox that need further analysis to reveal the factors that may lead to such an unexpected result. This in itself is a topic for future research. Location variables have less pronounced impact on the effect of individual and the socio demographic determinants of the mobility index as compared to the decision making index.

Accordingly, two main conclusions are worth noting. First, we confirm that women's empowerment is a multi-dimensional phenomenon that should be tackled with caution and cannot be grouped and aggregated. Formulating policies to enhance women's empowerment in Egypt need to tackle different dimensions separately. Our results suggest that education and employment are two main channels through which policy makers can improve Egyptian women's situation. Policies should work on encouraging female education; enhancing female entrepreneurial skills and providing finance this is especially true given that our results suggested that women who are public wageworkers, employers or self-employed are the most empowered.

Second, in addition to the individual, households, socio-demographic and socioeconomic characteristics, local context should be taken into account when analyzing determinants of women's empowerment. Accordingly, future research tackling this issue should focus on the

regional and social context. This later should not only be captured by the regional and governorate dummies, other regional characteristics should be included to determine the channels through which context can affect women's empowerment.

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Table 1: Distribution of the Sample According To The Age Groups (%)

Age Group	Age	Percent
1	=15 & <=25	30
2	>25 & <=35	41
3	>35 & <=49	29.78
Total		100

Source: Computed by the authors from ELMPS 2012

Table 2: Distribution of the Sample According to the Education Status (%)

Education Status	All Egypt	Urban	Rural
Illiterate	27.00	15.27	34.78
Literate but no basic education	2.63	1.79	3.22
Basic Education: (prim and prep)	14.58	13.22	15.52
Secondary	37.35	40.25	35.32
Post Secondary: Middle Institute	3.47	5.58	2.00
University & post University	15.20	23.88	9.15
Total	100	100	100

Source: Computed by the authors from ELMPS 2012

Table 3: Distribution of The Sample According to The Employment Status (%)

Composite employment status	Total	Urban	Rural
Wage worker in government	9.46	13.4	6.72
Wage worker in public	0.32	0.63	0.1
Wage worker formal in nonagriculture private inside establishment	0.61	1.1	0.27
Wage worker informal in nonagriculture private inside establishment	0.63	0.85	0.48
Wage worker in nonagriculture private outside establishment	0.25	0.44	0.12
Wage worker in agriculture private inside and outside establishment	0.38	0.14	0.56
Employer in agriculture	0.18	0.08	0.25
Employer in non-agriculture	0.29	0.39	0.23
Self employed in agriculture	0.33	0.11	0.48
Self employed in non- agriculture	1.14	0.77	1.4
Unpaid and nonemployed	86.31	82.06	89.27
Outside manpower	0.09	0.03	0.13
Total	100	100	100

Source: Computed by the authors from ELMPS 2012

Table 4: Distribution of the Sample According to the Per Capita Expenditure Quintiles (%)

Per capita Expenditure- quintile	Percentage
1	29.35
2	24.62
3	21.06
4	15.68
5	9.28
Total	100

Source: Computed by the authors from ELMPS 2012

Table 5: Distribution of the Sample According to the Decision Questions

		The share of women who answered:					
Who take the decision for	D_k	Alone	Myself and my husband	Myself, my husband and my in laws	Others	NA*	total
Making large household purchase?	1	6.11	46	1.99	45	0.65	100
Household purchase for everyday?	2	46.64	23.96	1.26	27.97	0.17	100
Visits to family, friends?	3	18.23	51.61	1.03	29.01	0.11	100
What should be cooked daily?	4	53.11	26.07	2.57	18.21	0.05	100
Getting medical treatment for yourself?	5	21.22	53.37	1.27	23.92	0.23	100
Buying clothes for yourself?	6	32.5	45.5	0.55	21.15	0.29	100
Taking child to the doctor?	7	21.23	43.2	0.98	20.45	14.13	100
Dealing with children's school?	8	14.76	12.41	0.27	25.57	46.98	100
Sending children to school daily?	9	17.74	11.7	0.28	20.23	50.04	100
Getting clothes and others for children?	10	20.48	36.29	0.65	24.97	17.61	100

Source: Computed by the authors from ELMPS 2012. *NA=Not Applicable

Table 6: Distribution of the Sample According to the Mobility Questions

	The share of women who answered:					
When going to:	Cant Go Alone	Need Permission	Just Inform them	Need no permission	NA*	Total
Local market	16.78	43.78	8.12	24.43	6.88	100
Local health Center	32.27	51.09	7.55	8.57	0.52	100
Health Center for Children	24.76	45.71	6.78	8.8	13.95	100
Friends or relative house	19.26	62.41	8.66	9.2	0.48	100

Source: Computed by the authors from ELMPS 2012. *NA= Not Applicable.

Table 7: Distribution of the Decision Making Index Quintiles at The Global, Urban and Rural Levels (%)

	1	2	3	4	Total
Urban	20.94	27.58	26.65	24.83	100
Rural	32.8	25.52	23.39	18.3	100
Egypt	27.93	26.37	24.73	20.98	100

Source: Computed by the authors from ELMPS 2012

Table 8: Average Age by the DI Quartiles

DI Quartile	Average Age
1	29
2	30
3	32
4	35
Total	31

Source: Computed by the authors from ELMPS 2012

Table 9: Distribution of the Decision Making Index According to Education Status (%)

Education Status	1	2	3	4	Total
Illiterate	31.86	23.54	25.69	25.31	26.76
Literate but no basic education	3.45	2.19	2.2	2.6	2.63
Basic Education	18.2	13.77	12.71	12.98	14.58
Secondary	33.69	38.68	38.21	39.53	37.35
Post Secondary: Middle Institute	2.89	3.83	3.39	3.89	3.47
University & post University	9.91	17.99	17.8	15.68	15.2
Total	100	100	100	100	100

Source: Computed by the authors from ELMPS 2012

Table 10: Distribution of the Decision Making Index According to the Employment Status (%)

Employment Status	1	2	3	4	Total
Unemployed	5.63	7.55	6.73	7.77	6.86
Wage worker	6.08	11.67	13.68	16.67	11.66
Employer	0.16	0.34	0.41	1.13	0.48
self employed	0.89	0.82	1.65	2.86	1.47
unpaid family worker	3.57	4.38	4.94	3.45	4.1
out of labor force	83.67	75.24	72.59	68.12	75.44
Total	100	100	100	100	100

Source: Computed by the authors from ELMPS 2012

Appendix 1: Technical Note for the Construction of the Decision and Mobility Index

For the decision making power inside the household, women are asked the following questions:

1. Who makes the decision for making large household purchases?
2. Who makes the decision for making household purchases for daily needs?
3. Who makes the decision concerning your visits to family, friends or relatives?
4. Who makes the decision concerning what food should be cooked each day?
5. Who makes the decision concerning getting medical treatment or advice for you?
6. Who makes the decision concerning buying your clothes?
7. Who makes the decision concerning taking child to the doctor?
8. Who makes the decision when dealing with children's school and teachers?
9. Who makes the decision concerning sending children to school on daily basis?
10. Who makes the decision concerning buying clothes and other needs for children?
11. Do you keep the household's money with you?

Answers for the first 10 questions, D_k, takes the following values:

- $D_k=4$: if the respondent makes the decision alone.
- $D_k=3$: if the respondent makes the decision with her husband.
- $D_k=2$: if the respondent makes the decision with her husband and her in laws.
- $D_k=1$: if the respondent does not participate in the decision at all.
- $D_k=Not\ Applicable$.

For, the *not applicable* answer, it is replaced by the weighted mean of the other answers. A dummy variable is created, for each of the 10 questions, equals 1 if the answer of the question is *not applicable*, 0 otherwise

The 11th question, D_{11} takes the values 1 if she keeps the household's money with her, 0 otherwise. More precisely, the DI takes the following form:

$$DI = \sum_{k=1}^{10} w_{Dk} * (D_k * NA_{Dk}) + (w_{11} * D_{11}) \qquad k=1,2,3,...10 \qquad (1)$$

Where w_{Dk} is the factor analysis weight, D_k is the value of the answer of the 10 questions of decisions. NA_{Dk} is the dummy variable of the not applicable answer. And w_{11}, D_{11} are the factor analysis weight and the answer for the 11th question.

For mobility, women are asked if they need no permission ($M_k=4$),), have to just inform them ($M_k=3$), need permission ($M_k=2$) or cannot go alone ($M_k=1$) when going to:

Local market

Local health center.

Health center for the children.

Friends or relative house

The *not applicable* answer for the mobility questions; it is treated the same way as for the decision index. More precisely, the MI takes the following form:

$$MI = \sum_{k=1}^{4} w_{Mk} * (M_k * NA_{Mk}) \qquad k=1,2,3,4 \qquad (2)$$

Where w_{Mk} is the factor analysis weight, M_k is the value of the answer of the 4 questions of mobility. NA_{Mk} is the dummy variable of the not applicable answer.

Appendix 2: Descriptive Statistics of the Mobility Index

Table A2.1: Average Age According to the MI Quartiles

MI Quartiles	Average Age
1	30
2	31
3	32
4	33
Total	31.30

Source: Computed by the authors from ELMPS 2012

Table A2.2 Distribution of the Mobility Index Quartiles at the Global, Urban and Rural Levels (%)

	1	2	3	4	Total
Urban	28.13	38.77	12.12	20.97	100
Rural	25.58	40.26	12.58	21.58	100
Total	26.63	39.65	12.39	21.33	100

Source: Computed by the authors from ELMPS 2012

Table A2.3 Distribution of the Mobility Index According to the Education Status (%)

Education Status	1	2	3	4	Total
Illiterate	26.41	25.97	27.88	28.05	26.76
Literate but no basic education	2.04	3.01	2.74	2.61	2.63
Basic Education	14.69	15.2	14.35	13.41	14.58
Secondary	35.78	38.48	37.11	37.36	37.35
Post Secondary: Middle Institute	4.26	2.86	3.66	3.51	3.47
University & post University	16.82	14.49	14.26	15.06	15.2
Total	100	100	100	100	100

Source: Computed by the authors from ELMPS 2012

Table A2.4: Distribution of the Mobility Index According to the Employment Status (%)

Employment Status	1	2	3	4	Total
Unemployed	5.4	7.99	6.94	6.53	6.86
Wage worker	9.05	10.99	12.88	15.44	11.66
Employer	0.25	0.37	0.37	1.01	0.48
Self employed	0.68	1.4	2.19	2.18	1.47
Unpaid family worker	3.14	4.37	4.93	4.3	4.1
Out of labor force	81.47	74.89	72.69	70.56	75.44
Total	100	100	100	100	100

Source: Computed by the authors from ELMPS 2012

Appendix 3: Estimated Parameters of the Six Regressions

First Regressions: Individual Characteristics

Dependent Variable	DI	MI
Age	0.128***	0.0373***
	(0.0106)	(0.0106)
Age squared	-0.00168***	-0.000415**
	(0.000163)	(0.000164)
Education (reference category=illiterate)		
Literate but no basic education	-0.0544	0.00830
	(0.0587)	(0.0591)
Basic Education (primary and preparatory)	0.0505	0.00665
	(0.0312)	(0.0314)
Secondary education	0.146***	-0.00849
	(0.0273)	(0.0275)
Post Secondary (Middle Institute)	0.0870	-0.111**
	(0.0556)	(0.0559)
University and Post University	0.121***	-0.103**
	(0.0411)	(0.0413)
Job Categories (Reference Category: outside of labor force)		
Wage worker in public sector	0.173***	0.250***
	(0.0357)	(0.0358)
Formal wage worker in private sector	0.105	0.191*
	(0.113)	(0.114)
Informal wage worker in private sector	0.284***	0.327***
	(0.0831)	(0.0836)
Employer	0.405***	0.485***
	(0.132)	(0.133)
Self employed	0.402***	0.340***
	(0.0755)	(0.0759)
Unpaid family worker	0.0237	0.0502*
	(0.0260)	(0.0261)
Unemployed	0.0295	0.102**
	(0.0412)	(0.0414)
Outside manpower	-0.743**	-0.810***
	(0.301)	(0.303)
Household's Characteristics		
Are you permanent household's head? (1 if yes, 0 otherwise)	0.383***	0.778***
	(0.0907)	(0.0912)
You are not the households' head? (1 if yes, 0 otherwise)	0.0558	0.373***
	(0.101)	(0.101)
Number of your children in the household	0.141***	0.0328***
	(0.00988)	(0.00993)
Are you a daughter-in-law in the household?	-0.236***	-0.0664
	(0.0438)	(0.0440)
Number of adults in the household	-0.0267***	-0.0140*
	(0.00737)	(0.00741)
Do you have n adult son living with you? (1 if yes, 0 otherwise)	-0.158***	0.0834**
	(0.0378)	(0.0380)
Poverty Status (Reference Category is the poorest quintile)		
Second quintile	0.233***	0.0747***
	(0.0265)	(0.0266)
Third quintile	0.232***	0.0792***
	(0.0297)	(0.0299)
Fourth quintile	0.219***	0.0215
	(0.0338)	(0.0340)
Fifth quintile	0.0270	-0.0128
	(0.0428)	(0.0430)
Marriage cost		
Her share with her family in marriage costs	0.225***	0.173***
	(0.0572)	(0.0575)
Number of durable goods she brought when married	-0.00328	0.0159***
	(0.00363)	(0.00365)
Husband's characteristics		
Age gap between her and her husband	-0.00529***	-0.00353**
	(0.00174)	(0.00175)
Husband Job Categories (Reference Category: unpaid and nonemployed)		
Wage Worker in government	-0.129***	-0.0961**
	(0.0449)	(0.0452)
Wage Worker in Public	0.125**	-0.0230
	(0.0622)	(0.0625)
Wage worker formal in nonagricultural private inside establishment	0.165***	0.146***
	(0.0519)	(0.0522)
Wage worker informal in nonagricultural private inside establishment	0.0668	0.107**
	(0.0498)	(0.0500)

Dependent Variable	DI	MI
Wage worker in nonagricultural private outside establishment	0.0120	0.0184
	(0.0472)	(0.0474)
Wage worker in agricultural private inside and outside establishment	-0.146***	-0.0571
	(0.0536)	(0.0539)
Employer in agriculture	-0.149**	-0.00174
	(0.0578)	(0.0581)
Employer in Non-agriculture	-0.00599	-0.0575
	(0.0541)	(0.0544)
Self Employed in Agriculture	-0.334***	-0.256***
	(0.0828)	(0.0833)
Self Employed in Non-agriculture	-0.0158	-0.0175
	(0.0513)	(0.0516)
Outside man power	-0.0557	0.0899
	(0.0943)	(0.0948)
Father's Characteristics		
Father's education (Reference Category: illiterate)		
Read and Write	0.0761***	0.00962
	(0.0256)	(0.0258)
Less than intermediate	0.132***	0.0108
	(0.0323)	(0.0324)
Intermediate	0.0707*	-0.0310
	(0.0362)	(0.0364)
Above Intermediate	-0.119	-0.120
	(0.0795)	(0.0799)
University	0.0941*	-0.100**
	(0.0494)	(0.0496)
Post University	0.466	0.756**
	(0.301)	(0.303)
Father's employment (reference Category: wage worker)		
Employer	9.93E-06	-0.0638***
	(0.0228)	(0.0229)
Self Employed	0.00765	-0.0411
	(0.0303)	(0.0304)
Unpaid family worker	-0.491***	-0.164
	(0.182)	(0.183)
No job	-0.324***	-0.308***
	(0.0840)	(0.0845)
Constant	-2.621***	-0.889***
	(0.170)	(0.171)
Observations	8,813	8,813
R-squared	0.198	0.108
Standard errors in parentheses		

Notes: *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Second Regressions: Individual Characteristics and Regional Dummies

Dependent Variable	DI	MI
Age	0.108***	0.0367***
	(0.0104)	(0.0106)
Age squared	-0.00149***	-0.000436***
	(0.000160)	(0.000163)
Education (reference category=illiterate)		
Literate but no basic education	-0.0408	0.0126
	(0.0574)	(0.0587)
Basic Education (primary and preparatory)	0.0257	0.00936
	(0.0306)	(0.0312)
Secondary education	0.124***	-0.00780
	(0.0269)	(0.0275)
Post Secondary (Middle Institute)	0.0662	-0.0994*
	(0.0545)	(0.0556)
University and Post University	0.123***	-0.0996**
	(0.0404)	(0.0412)
Job Categories (Reference Category: out of labor force)		
Wage worker in government and public	0.222***	0.267***
	(0.0351)	(0.0358)
Formal wage worker in formal private	0.0999	0.174
	(0.110)	(0.113)
Informal wage worker in private	0.195**	0.311***
	(0.0815)	(0.0832)
Employer	0.428***	0.496***
	(0.129)	(0.132)
Self employed	0.397***	0.327***
	(0.0740)	(0.0755)
Unpaid family worker	0.0200	0.0361
	(0.0260)	(0.0266)
Unemployed	0.0252	0.0966**
	(0.0406)	(0.0415)
Outside manpower	-0.732**	-0.786***
	(0.295)	(0.301)
Household's Characteristics		
Are you the permanent head of the household? (1 if yes, 0 otherwise)	0.543***	0.806***
	(0.0891)	(0.0909)
You are not the head of the household? (1 if yes, 0 otherwise)	0.134	0.374***
	(0.0988)	(0.101)
Number of your children in the household	0.138***	0.0316***
	(0.00966)	(0.00986)
Are you a daughter-in-law in the household?	-0.261***	-0.0766*
	(0.0428)	(0.0437)
Number of adults in the household	-0.0253***	-0.0133*
	(0.00721)	(0.00736)
Do you have an adult son living with you? (1 if yes, 0 otherwise)	-0.126***	0.0939**
	(0.0370)	(0.0378)
Poverty Status (Reference Category is the poorest quintile)		
Second quintile	0.115***	0.0461*
	(0.0267)	(0.0273)
Third quintile	0.0390	0.0395
	(0.0306)	(0.0313)
Fourth quintile	-0.0291	-0.0141
	(0.0354)	(0.0361)
Fifth quintile	-0.315***	-0.0591
	(0.0457)	(0.0466)
Marriage cost		
Her share with her family in marriage costs	0.0721	0.133**
	(0.0566)	(0.0577)
Number of durable goods she brought when married	-0.00830**	0.0103***
	(0.00366)	(0.00373)
Husband's characteristics		
Age gap between her and her husband	-0.00347**	-0.00321*
	(0.00170)	(0.00174)
Husband Job Categories (Reference Category: unpaid and nonemployed)		
Wage Worker in government	-0.0987**	-0.0874*
	(0.0440)	(0.0449)
Wage Worker in Public	0.0734	0.00789
	(0.0611)	(0.0624)
Wage worker formal in nonagricultural private inside establishment	0.109**	0.129**
	(0.0508)	(0.0519)
Wage worker informal in nonagricultural private inside establishment	0.0139	0.0943*
	(0.0487)	(0.0498)
Wage worker in nonagricultural private outside establishment	0.0119	0.0291
	(0.0462)	(0.0471)

Dependent Variable	DI	MI
Wage worker in agricultural private inside and outside establishment	-0.110**	-0.0534
	(0.0526)	(0.0537)
Employer in agriculture	-0.0726	0.0187
	(0.0567)	(0.0578)
Employer in Non-agriculture	0.0135	-0.0535
	(0.0529)	(0.0540)
Self Employed in Agriculture	-0.277***	-0.243***
	(0.0811)	(0.0828)
Self Employed in Non-agriculture	-0.0381	-0.0200
	(0.0502)	(0.0513)
Outside man power	-0.0559	0.0845
	(0.0922)	(0.0942)
Father's Characteristics		
Father's education (Reference Category: illiterate)		
Read and Write	0.0372	0.00350
	(0.0252)	(0.0257)
Less than intermediate	0.0999***	0.00751
	(0.0316)	(0.0323)
Intermediate	0.0723**	-0.0284
	(0.0354)	(0.0362)
Above Intermediate	-0.0956	-0.129
	(0.0778)	(0.0794)
University	0.0832*	-0.126**
	(0.0484)	(0.0494)
Post University	0.463	0.734**
	(0.295)	(0.301)
Father's employment (reference Category: wage worker)		
Employer	0.0113	-0.0672***
	(0.0223)	(0.0228)
Self-Employed	-0.00420	-0.0504*
	(0.0297)	(0.0303)
Unpaid family worker	-0.446**	-0.154
	(0.178)	(0.181)
No job	-0.268***	-0.287***
	(0.0822)	(0.0840)
In which Region do you live?(Reference: Greater Cairo)		
Alex, Suez canal and Port Said	-0.109**	-0.449***
	(0.0438)	(0.0447)
Urban Lower	-0.225***	-0.195***
	(0.0411)	(0.0419)
Urban Upper	-0.566***	-0.313***
	(0.0406)	(0.0415)
Rural Lower	-0.314***	-0.181***
	(0.0369)	(0.0376)
Rural Upper	-0.671***	-0.294***
	(0.0397)	(0.0406)
Constant	-1.628***	-0.569***
Observations	8,813	8,813
R-squared	0.234	0.121

Notes: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Third Regressions: Individual Characteristics and Governorates and Urban/Rural Dummies

Dependent Variable	DI	MI
Age	0.116***	0.0418***
	(0.0100)	(0.0103)
Age squared	-0.00156***	-0.000487***
	(0.000155)	(0.000159)
Education (reference category=illiterate)		
Literate but no basic education	-0.0287	0.0239
	(0.0553)	(0.0568)
Basic Education (primary and preparatory)	0.0635**	0.0295
	(0.0298)	(0.0306)
Secondary education	0.142***	-0.00247
	(0.0261)	(0.0269)
Post Secondary (Middle Institute)	0.110**	-0.115**
	(0.0526)	(0.0541)
University and Post University	0.146***	-0.107***
	(0.0391)	(0.0402)
Job Categories (Reference Category: out of labor force)		
Wage worker in public sector	0.182***	0.242***
	(0.0339)	(0.0348)
Formal wage worker in formal private sector	0.0917	0.155
	(0.106)	(0.109)
Informal wage worker in private sector	0.110	0.255***
	(0.0786)	(0.0809)
Employer	0.287**	0.383***
	(0.124)	(0.128)
Self employed	0.267***	0.196***
	(0.0715)	(0.0736)
Unpaid family worker	-0.0645**	-0.0140
	(0.0257)	(0.0264)
Unemployed	-0.0178	0.0534
	(0.0396)	(0.0407)
Outside manpower	-0.681**	-0.796***
	(0.283)	(0.291)
Household's Characteristics		
Are you permanent head of household? (1 if yes, 0 otherwise)	0.734***	0.962***
	(0.0864)	(0.0888)
You are not the head of the household? (1 if yes, 0 otherwise)	0.283***	0.496***
	(0.0954)	(0.0981)
Number of your kids in the household	0.129***	0.0250***
	(0.00932)	(0.00958)
Are you a daughter –in-law in the household?	-0.227***	-0.0525
	(0.0412)	(0.0424)
Number of adults in the household	-0.0238***	-0.00819
	(0.00699)	(0.00718)
Do you have an adult son living with you? (1 if yes, 0 otherwise)	-0.131***	0.0975***
	(0.0357)	(0.0367)
Poverty Status (Reference Category is the poorest quintile)		
Second quintile	0.0390	0.00130
	(0.0263)	(0.0271)
Third quintile	-0.0462	-0.00178
	(0.0303)	(0.0312)
Fourth quintile	-0.120***	-0.0651*
	(0.0351)	(0.0361)
Fifth quintile	-0.400***	-0.136***
	(0.0454)	(0.0467)
Marriage cost		
Her share with her family in marriage costs	0.0718	0.150***
	(0.0558)	(0.0574)
Number of durable goods she brought when married	0.00155	0.0166***
	(0.00377)	(0.00388)
Husband's characteristics		
Age gap between her and her husband	-0.000703	-0.000986
	(0.00165)	(0.00169)
Husband Job Categories (Reference Category: unpaid and nonemployed)		
Wage Worker in government	-0.0719*	-0.0469
	(0.0424)	(0.0436)
Wage Worker in Public	0.0910	0.0268
	(0.0590)	(0.0606)
Wage worker formal in nonagricultural private inside establishment	0.0835*	0.110**
	(0.0491)	(0.0505)
Wage worker informal in nonagricultural private inside establishment	-0.00212	0.0758
	(0.0471)	(0.0484)

Dependent Variable	DI	MI
Wage worker in nonagricultural private outside establishment	0.0367	0.0562
	(0.0446)	(0.0458)
Wage worker in agricultural private inside and outside establishment	-0.0559	-0.00258
	(0.0508)	(0.0522)
Employer in agriculture	-0.103*	0.0146
	(0.0550)	(0.0565)
Employer in Non-agriculture	0.0121	-0.0393
	(0.0510)	(0.0524)
Self Employed in Agriculture	-0.204***	-0.172**
	(0.0784)	(0.0806)
Self Employed in Non-agriculture	-0.0358	-0.000763
	(0.0484)	(0.0498)
Outside man power	-0.0464	0.118
	(0.0889)	(0.0914)
Father's Characteristics		
Father's education (Reference Category: illiterate)		
Read and Write	-0.00158	-0.0279
	(0.0243)	(0.0250)
Less than intermediate	0.0483	-0.0406
	(0.0306)	(0.0315)
Intermediate	0.0422	-0.0522
	(0.0342)	(0.0351)
Above Intermediate	-0.116	-0.147*
	(0.0749)	(0.0771)
University	0.0555	-0.141***
	(0.0467)	(0.0481)
Post University	0.352	0.547*
	(0.284)	(0.292)
Father's employment (reference Category: wage worker)		
Employer	-0.0129	-0.0762***
	(0.0216)	(0.0223)
Self Employed	-0.00721	-0.0555*
	(0.0287)	(0.0295)
Unpaid family worker	-0.413**	-0.0804
	(0.171)	(0.176)
No job	-0.199**	-0.251***
	(0.0796)	(0.0819)
In which governorate do you live? (Reference Category: Urban Cairo)		
Urban Alexandria	-0.0445	-0.608***
	(0.0518)	(0.0533)
Urban Port Said	-0.417***	0.173
	(0.123)	(0.127)
Urban Suez	-0.629***	-0.246***
	(0.0905)	(0.0931)
Urban Damiatta	-0.586***	-0.511***
	(0.101)	(0.104)
Urban Dakahlia	-0.175**	0.114
	(0.0738)	(0.0759)
Urban Sharkia	-0.154**	-0.123*
	(0.0728)	(0.0748)
Urban Kaliobia	-0.307***	-0.161**
	(0.0774)	(0.0795)
Urban Kafr Sheikh	-0.481***	-0.684***
	(0.0799)	(0.0822)
Urban Gharbia	-0.109	-0.188**
	(0.0744)	(0.0765)
Urban Memoufia	-0.207**	-0.0890
	(0.0864)	(0.0888)
Urban Behera	-0.354***	-0.436***
	(0.0748)	(0.0770)
Urban Ismailia	-0.0526	-0.454***
	(0.0782)	(0.0804)
Urban Giza	-0.216***	-0.119*
	(0.0660)	(0.0679)
Urban Bani Swif	-0.232***	-0.258***
	(0.0741)	(0.0762)
Urban Fayoum	-0.242***	-0.324***
	(0.0718)	(0.0738)
Urban Menia	-0.391***	-0.219***
	(0.0752)	(0.0774)
Urban Asiut	-0.841***	-0.276***
	(0.0676)	(0.0695)
Urban Sohag	-1.096***	-0.544***
	(0.0734)	(0.0755)
Urban Qena	-1.093***	-0.690***
	(0.0809)	(0.0832)

Dependent Variable	DI	MI
Urban Aswan	-0.810***	-0.504***
	(0.0792)	(0.0814)
Urban Luxor	-0.841***	-0.395**
	(0.150)	(0.154)
Rural Cairo	0	0
	(0)	(0)
Rural Alexandria	0	0
	(0)	(0)
Rural Port Said	0	0
	(0)	(0)
Rural Suez	0	0
	(0)	(0)
Rural Damietta	-0.473***	-0.419***
	(0.0656)	(0.0675)
Rural Dakahlia	-0.274***	0.0702
	(0.0560)	(0.0576)
Rural Sharkeia	-0.239***	-0.0507
	(0.0546)	(0.0562)
Rural Kaloibia	-0.470***	-0.0863
	(0.0608)	(0.0625)
Rural Kafr Sheikh	-0.576***	-0.425***
	(0.0581)	(0.0597)
Rural Gharbia	-0.287***	-0.108*
	(0.0581)	(0.0598)
Rural Menoufia	-0.169**	-0.197***
	(0.0710)	(0.0730)
Rural Behera	-0.541***	-0.618***
	(0.0585)	(0.0601)
Rural Ismailia	-0.290***	-0.409***
	(0.0632)	(0.0650)
Rural Giza	-0.329***	0.0463
	(0.0632)	(0.0650)
Rural Bani Swif	-0.458***	-0.0785
	(0.0615)	(0.0633)
Rural Fayoum	-0.448***	-0.214***
	(0.0649)	(0.0668)
Rural Menia	-0.541***	-0.232***
	(0.0562)	(0.0578)
Rural Asiut	-0.874***	-0.416***
	(0.0622)	(0.0639)
Rural Sohag	-1.226***	-0.799***
	(0.0558)	(0.0574)
Rural Qena	-1.202***	-0.688***
	(0.0594)	(0.0610)
Rural Aswan	-0.676***	-0.363***
	(0.0749)	(0.0770)
Rural Luxor	-0.964***	-0.600***
	(0.130)	(0.134)
Constant	-1.695***	-0.614***
	(0.171)	(0.176)
Observations	8,813	8,813
R-squared	0.297	0.182

Notes: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1