ECONOMIC RESEARCH FORUM
منتدى البحوث الاقتصادية
2015

working paper series

INFORMALITY AND SOCIO-ECONOMIC WELL-BEING OF WOMEN IN EGYPT

Reham Rizk and Hala Abou-Ali

Working Paper No. 910

INFORMALITY AND SOCIO-ECONOMIC WELL-BEING OF WOMEN IN EGYPT

Reham Rizk and Hala Abou-Ali

Working Paper 910

May 2015

Send correspondence to:
Reham Rizk
British University in Egypt
Reham.Rizk@Bue.edu.eg

First published in 2015 by
The Economic Research Forum (ERF)
21 Al-Sad Al-Aaly Street
Dokki, Giza
Egypt
www.erf.org.eg

Abstract

The paper attempts to quantify the impact of informal employment on women's contribution to the household budget. It further pinpoints the socio-economic factors that affect women's struggle to meet their household needs. Using the Egyptian Labor Market Panel Survey 2012, the analysis reveals that informality decreases women's contribution to the household budget by 31%. Moreover, women's educational level, household size, and husband's education, among other factors, shape women's involvement in the household budget.

JEL Classification: J16, J22, J13, O15

Keywords: Women; Household Economics; Labor Supply; Informal Jobs

ملخص

تحاول هذه الورقة قياس أثر العمالة غير الرسمية على مساهمة المرأة في ميزانية الأسرة. وتشير أيضا إلى العوامل الاجتماعية والاقتصادية التي تؤثر على نضال المرأة من أجل تلبية احتياجات أسرهم المعيشية. يكشف التحليل باستخدام المسح التتبعى لسوق العمل في مصر لعام 2012، أن مساهمة المرأة تنخفض فى القطاع غير الرسمي في ميزانية الأسرة بنسبة 31٪. وعلاوة على ذلك، فهناك عوامل تشكل إشراك المرأة فى ميزانية الأسرة مثل مستوى المرأة التعليمي، حجم الأسرة، ومستوى تعليم الزوج، وعوامل أخرى.

1. Introduction

Evidence points that informal employment in Egypt is a permanent phenomenon, rather than being in a transitory stage. It accounts for about 75% of new entrants to the labor market between 2000 and 2005. About half of the women engaged in the labor market are informally employed. Additionally, 61% of the labor force in 2006 engaged in informal jobs (Assaad 2007).

Informal workers are low-paid workers with little or no access to social security, as they are unrecognized by legislators and policy makers. The exclusion of informal workers will result in a great loss at the micro and macro level of the economy. Empowering informally employed women has a large impact on the educational and health wellbeing of their offspring (Roushdy & Namoro 2007). Women literacy rates in Egypt account for 69% of illiterates in Egypt (McGrath 2010). Moreover, a gender differential appears in educational attainment, with 28.2% of females above 6 years having never went to school compared to 14.9% for males (El-Zanaty & Way 2009). This is not only in the case of Egypt, as women have proved to have fewer opportunities to escape poverty in developing countries. This lack of opportunities can be attributed to limited access to education and limited mobility. In Senegal, limited access to education drives women's economic activities to informal employment. Looking at Mali, as another example, 90% of married men work in Europe, where wives are left behind to care of the household forcing their productive activities to locate in local communities (Boehe and Barin Cruz 2013). The limited mobility of women due to their commitment to their families and communities hinders their ability to take advantage of potential education or professional opportunities. However, females develop a set of capabilities that distinguish them from males, namely relationship and managerial capabilities. The former capabilities promote female inclusion in social and economic networks and thus inclusion in economic life. As concerns the latter capabilities, it is proven that women exhibit stronger management and administrative rigor and focus on economic activities. In sum, women's restricted mobility leads her to work in informal jobs to guarantee subsistence for the household, given that her main concern is about maintaining the household's welfare via spending her earnings on food, clothing and developing children's human capital (Kevane and Wydick 2001).

To the authors' knowledge, the existing literature on informality has, to a large extent, ignored female's contribution to the household budget. Few studies have analyzed the determinants of female contribution to the household budget. For instance, Khan (2007 and 2008) investigated female's contribution in both rural and urban areas of Pakistan. However, Egyptian case studies are scant. Therefore, this study attempts to determine the extent by which female contribution to household budget raises the household wellbeing and maintains its survival in Egypt. In addition, this study investigates the determinants of women's contribution to the household budget taking into consideration informal employment. To enable the estimation of an ordinary least squares (OLS) model, the 2012 Egyptian Labor Market Panel Survey (ELMPS) on OAMDI (2013) is utilized. In this paper, informal employment is defined as employees without a legal contract. Key results show that informal employments have a significant impact on women's contribution to household budget.

The remainder of the paper is organized as follows: Section 2 reviews the literature of female informal work and social well-being. Section 3 describes the conceptual framework and portrays the empirical approach. Section 4 depicts the data used in this study and sketches the estimation results. Section 5 concludes.

2. Literature Review

Investigating the patterns of employment and earnings structure in the formal and informal sector, in five countries of Central America, Funkhouser (1996) shows that the informal sector is considered important for absorbing the labor force. Informal sector size is being negatively

related to the level of development of the country and it extensively includes the youngest, oldest, the least educated and the female. Furthermore, the informal sector is more closely related to females' household composition than for males. The study also finds that returns of human capital are lower in the informal jobs, as opposed to the formal ones. However, the return of a year of education in each country is higher than the developed countries and tends to be correlated with the return to education in the formal sector. In addition, the return to early years of experience is higher in the informal sector as compared to the formal sector.

Large scale labor force surveys fail to capture the determinants of female employment (Unni and Rani 2000). There are few studies focusing on the determinants of female employment in developing countries. Some studies concentrate on the factors that could affect women's level of work participation and type of employment (Rahman and Jesmin 2003). However, women still suffer from limited opportunities for economic and social reasons. Jesmin and Salway (2000) argue that men dominate their wives and use their local power against them, creating physical insecurity and marriage instability, in addition to causing volatile economic conditions for women leading to informalization of females' labor participation.

Sethuraman (1998) asserts that the degree of employment informalization is intense among irregular, low-paid, unskilled wage work or small scale activities, which are the core of concentration of female jobs. This is due to constrained access to secure jobs and income-generating opportunities (Opel 2000). Rahman and Jesmin (2003) investigate the determinants of the women's profile work participation among urban dwellers in Bangladesh. Their study finds that about 50% of adult women are engaged in income generating work in the informal sector. The analysis highlights the contribution of women's work to household well-being, not only via paid employment, but also through the stability of income flow to the household.

The vulnerability of female-headed households could lead to non-income aspects of poverty. Being activity burdened could lead to employing one of the school-age household members to generate income. This leads to low school attainment for children in female headed households (Buvinic´ and Rao Gupta 2014). Furthermore, their study finds that female –headed households prefer to spend income on improving children's welfare via increasing expenditure on health, education and nutrition. Duflo & Udry (2004) unveil that the higher share of females' income in the household is spent on food and women's private goods. However, the largest share of males' contribution is spent on tobacco, alcohol and private goods of men.

Using a survey data for 10 developing countries, Quisumbing, Haddad and Pena (2001) show no significant effect of higher incidence of poverty among female headed households in two-thirds of the countries except for Bangladesh. This is also reflected in the work of Mallick and Rafi (2010), where no significant difference in the effect of providing food security between male-headed and female-headed household among original ethnic groups is detected.

Cancian, Danziger and Gottschalk (1993) investigate the impact of wives' earnings on the distribution of family income to inequality among married couples over the period 1968-1988 in USA. The study demonstrates that income inequality increased substantially over the 20 years among couples. This attributes to increasing wives' earnings due to general increase in labor force participation. The study also estimates the square coefficient of variation to detect the effects of inequality on family income and illustrates that women's contribution to family income is higher than men's.

Amin and DaVanzo (2004) analyze the effects of wives' earnings on household earnings in Malaysia in 1976 and 1988 using first and second Malaysian family life surveys. The Gini index reveals that wives' earnings equalize the distribution of household in Malaysia in and across time. Using Shorrocks decomposition, the paper exhibits that females' contribution to household earnings is modestly greater. The equalizing effect of females' contribution is due

to increasing the female participation in full-time work and their hourly wage. This leads to a declining correlation between husband's and wife's earnings, contrary to the USA case.

During the last decade, Sørensen (2003) shows that women's economic power in households increased in industrialized countries. This is because of their significant contribution to household income as compared to their spouses. As a result, the majority of men depend on their wives' earnings for maintaining their current standard of living. Women show less economic dependence on their husbands and consequently face less financial risk. Women's earnings are considered as insurance to the household in case of the husband's illness, layoffs and/or unemployment.

Faridi (2011) analyzes women's effort for family subsistence in Pakistani rural areas. The study uncovers that women's age, hourly wage, being a head of household, poor and work permission are positively affecting their contribution to family income. The paper also suggests that being in a joint family with more children, more working hours of husband and less access to education are negatively affecting women's contribution to family income**.**

Sajeda and Al-Bassusi's (2003) paper explores women's aspiration towards marriage and work in Egypt. In fact, job opportunities for women in Egypt have declined substantially over the last decade even with higher level of education. However, women's marital expectations are very high in terms of a high standard of living for their families. In order to achieve their marriage goals they work more and intensively save before marriage.

Ostrovsky's (2012) paper examines the dynamics of Canadian family earnings using a flexible error-component model. The result reveals the correlation between spouses' transitory incomes steadily increased from the 1990s until 2000. As women's participation in the labor market became very common, their contribution to the household income became equal and may be larger compared to men. Thus, both of them are highly exposed to labor market shocks and variability of family income. Also, another source of correlation between spouses' earnings is the rising probabilities of divorce and marriage.

Barrientos (2002) argues that women are overrepresented in the informal sector in Latin America. They are intensively engaged in lower-paid and unstable occupational jobs. About 52% of women are working in the informal sector, including nearly half as self-employed, a third in domestic work and the residual in microenterprise employment. Moreover, the average earnings for women in the informal sector are lower than women in formal, as well as men.

In India, Geetha (2010) shows that most women working in the urban informal sector are low-skilled and illiterates. In addition, this sector offers low compensation with no social security or welfare benefits. Poverty and lack of formal jobs are the main cause of participation in market activities. The results revealed that women working in the informal sector are overburdened and exploited. Furthermore, Khan and Khan (2009) identify the determinants of women's contribution in household income through working in informal jobs in Pakistan. The results reveal that being household head, education level and assets ownership have a positive influence on contribution. Similarly, household size, household poverty status and borrowing have a positive effect on women's contribution. However, household per capita income and number of children negatively affects their contribution to household income. The increase in women's income and productivity from working in informal sector have a trickledown effect on reducing household poverty as well as a burden on women.

3. Model Specification and Methodology

The majority of women with informal jobs have less access to formal employment as they are illiterate and low-skilled. Most of the informal occupations are home activities, family business, self employment or domestic workers. These women live below the poverty line, having no capital and unable to get alternative employment. Moreover, there could be

constraints that hinder their mobility for having an outside home job opportunity. Variables selection to analyze the socio-economic factors that influence female contributions to household income is driven by the theory and data availability. Following Khan and Khan (2009) and Yasmin, Amjad, & Ahmad (2013), this paper makes use of the OLS method to capture household budget participation of women informally employed in the following form:

$$Y = \alpha + \beta^* X_i + \mu_i$$

where "Y" characterizes the dependent variable that is monthly contribution of woman devoted for helping her household financially. "β^*" is the coefficient vector, "X_i" embodies for a vector of regressors and μ_i represents the error term.

Based on the regressors, we run two groups of regression. The first is for married women, including her individual characteristics, her partner characteristics as well as some demographic and household characteristics. The second stands for the women not currently married (single, widowed and divorced) embracing the same set of variables, while replacing husband's with father's characteristics. The remainder of this section offers a detailed description of the variables.

3.1 Woman Individual characteristics

This category of variables includes female specific characteristics such as age, education, job occupation, formality and job stability. The female age is expected to have a significant effect due to its altering outcome that depends on the data age structure. Women's age has been grouped into three categories. The first encompasses women ranging from 16 to 25 years of age. The second comprises women aged 26-35. The last group includes those who are 36 and above. This could be further explained, on the one hand, by the fact that increase of women's age may increase their contribution due to larger household, work experience and presence of offspring to take care of household chores freeing her for work. On the other hand, elderly women have adult males and females who are unemployed and at marriage age group and will possibly need financial help and thus elder women contribute more to household income. The reference group includes women aged from 16 to 25 years.

Education is perceived to be one of the major characteristics that influence women's contribution in two ways. First, increasing education level could lead to more labor market participation or increase her productivity at home tasks and contribute nothing to household income. Second, it may have a combined effect. The effects of education attainment are captured by three dummy variables. No education: this category includes those who have never been to school. Up to secondary level for primary, preparatory and secondary graduates and above secondary level for post-secondary, university and post-university graduates. The reference group is above secondary level. Woman's occupation is also included in the regression as an important determinant for women's contribution and is captured by three dummies: agriculture sector, service sector and industrial sector. The reference group includes service sector.

Woman's job stability is captured by two dummies: whether her job is permanent or part-time contract. Permanent contracts help women to contribute more to their household budget on regular basis. The reference group includes part-time jobs. Informality is captured by jobs offered to woman with no legal contract. Accordingly, they are deprived from secure work, any worker benefits, or social protection. Following the literature, women working in informal jobs contribute less to their household budget as compared to their formally employed counterparts.

3.2 Husband characteristics

Characteristics of this particular household member are also important in determining female's contribution to household income. The husband life cycle, education, and employment status

are included in the regression. Husband's age is calculated as a ratio of husband to woman age, to capture women's empowerment. Education is captured by completed years of schooling. Employment status is captured by two dummy variables: self-employed and wage worker. The omitted category is wage worker group.

3.3 Household characteristics

Variables illustrating the household structure are of great importance. Two main variables are used in that respect, one continuous and the other discreet. The former is the household size represented by the number of household members. There are two hypotheses. The first states that larger households imply greater labor supply, thus female contribute less to household income. The second is that the bigger the household size, the greater the number of mouths that need to be fed. Subsequently, women have to contribute more to the household budget.

3.4 Demographic characteristics

This will embrace variables that postulate the structure of the household members. It is believed that the presence of infants in a household requires different tasks of child care, which consequently reduces women's contribution to household income. However, a school-age child reduces home time, but requires more financial resources to spend on clothing, education and food. Thus, it is expected that women contribute more to household income. Nevertheless, working children will increase household financial resources and consequently lead to less contribution by women. The number of male and female adults may also affect women's contribution to household budgets in different ways: either through allocation of financial resources within the household or through their time consumption in home care activities and production activities. Location of household has been captured by three dummy variables: Metropolitan, Upper Egypt and Lower Egypt to examine the presence of regional differences in women contribution in Egypt. The omitted category is Upper Egypt.

4. Data and Empirical Results

4.1 Data

This study makes use of the 2012 ELMPS. The survey is a follow-up survey to the ELMS 1998 and ELMPS 2006. It was carried out by the Economic Research Forum in cooperation with the Egyptian Central Agency for Public Mobilization and Statistics. The field work for the survey in question was carried out from March to June of 2012. The ELMPS 2012 includes 12,060 households, consisting of 6,752 households from the 2006 sample, 3,308 new households as a result of splits emerging from the original households, and a sample refresher of 2,000 households. Of the 37,140 individuals interviewed in the 2006 survey, 28,770 (77%) were successfully re-interviewed in 2012, of which 13,218 individuals were also tracked in 1998, forming a panel that can be used for longitudinal analysis. The 2012 sample also includes 20,416 new individuals. Of these new individuals, 5,009 joined original 2006 households; 6,900 joined split households; and 8,507 were members of the refresher sample of households. Furthermore, the survey instrument consists of three chapters. The first chapter introduces the household questionnaire that contains information on basic characteristics, housing services and facilities, and durable goods. The second chapter presents the individual questionnaire that includes information on father's and mother's characteristics, siblings and health, in addition to a detailed female module, as well as education and earnings. The third chapter proposes information about migration, remittances, and non-agricultural and agricultural enterprises.

Women's contribution to the household budget is crucial for providing the household with financial resources that assist in the reduction of household poverty and maintaining a satisfactory standard of living. To study the determinants of this phenomenon, a sample of 881 ever married women in addition to a sample of 224 not ever married are used in the analysis. Table (1) provides descriptive statistics for the samples pertaining to this work besides various

characteristics of women, partners and households. Figure (1) depicts that ever married women are spending 81% of their monthly wages on supporting their households' needs, while those who are not currently married spend only 19%.

Figure (2) illustrates that total women expenditure in household budget is greater for those with formal employment, as compared to the ones with informal employment. This supports the idea that informal jobs absorb the most uneducated and unskilled women and offer elementary professions that requires no skills, which lead to low earnings and less contribution to household budget. Moreover, ever married women contribute four times more than single women if they are formally employed.

4.2 Empirical results

As previously mentioned, the objective of this paper is two-folds. First, it assesses the impact of informality on women's contribution to the household budget. Second, it pinpoints the socio-economic factors that affect women struggle to meet their household needs. Table (2) displays the results of the determinants of total contributions to the household budget for ever married and never married women. It should be noted that the model is checked for the presence of multicollinearity, using variance inflation factor test. To check for heteroscedasticity problem that is frequently encountered in cross-sectional studies. White's heteroscedasticity test is carried out to detect such problems. Neither of the two problems are found to be present in the selected model. Concerning women, total expenditure is proxied by their total household spending. A wide spectrum of variables is selected for the analysis, including cultural and social forces, to fit with the conceptual framework and to capture various dimensions of factors that could impact women's empowerment in household. However, due to sample size limitation, some are removed since they did not show any significant effect.

The informality variable is structured as a dummy variable, taking the value of one if the woman has no legal contract and 0 otherwise. The analysis reveals that in the case of married sample informality has a decreasing significant effect on women's contribution to household budget. Women in this type of jobs are believed to engage more in home-based enterprises and are casual workers. This corroborated with the results that we reached for service sector, as women belonging to this sector contribute less to the household budget. Moreover, they are mostly uneducated - comprising nearly 47.9% illiteracy. ***Women's age:*** the analysis indicates that in the age group (35-49) more contribution to the household budget is offered as compared to younger groups. This could be attributed to the fact that women in this age group are more likely to be economically active and concerned with their input to household budget and may have school children or girls at the marriage age. ***Women's education level*** is considered a crucial factor in determining contribution to household budget, though in informal jobs, majority of employed women are illiterate can negatively affect the contribution to the household budget. The fact that she will devote her time to home and contribute less to the household budget is supported by (Hamid 1991). While less than secondary level has a significant effect on women's contribution to the household budget.

With respect to ***women's job characteristics***, having a job in both agricultural and industrial sectors leads to increasing their contribution in household budget, compared to service sector. This is consistent with (Said 2007). In addition, women with a permanent job contribute more to household income compared to those with a part-time job.

Moving to the husband characteristics, ***ratio of husband to women age*** decreases women's contribution to the household budget but it is insignificant. ***Husband employment status*** reveals no significant effect on women's household budget contribution. In terms of the ***husband's education,*** a negative effect on women's share in household payments can be seen because educated husbands are believed to have higher productivity in the labor market hence

they earn higher wages and can satisfy household basic needs. Based on this result women have to contribute less to household budget and allocate more time to household chores.

Coming to household characteristics, ***household size*** positively impacts women's contribution to the household budget. As concerns the household demographic characteristics, the presence of ***infants*** in the households has a negative impact on women's contribution to the household budget. This is because they need constant care; hence women's productivity at home is higher, reducing her labor earnings. Moreover, the presence of ***school-age children*** has a negative influence. This may be explained by the fact that they belong to a working-age group and consequently provide the household with financial support. Moreover, the presence of male and female adults in the household has shown a negative effect on women's contribution in the household budget. Female adults cause women's contribution to the household budget to decrease by 18% as compared to male adults (5 percent). With respect to **household location**, women in households located in Metropolitan areas contribute more to thee household budget relative to their counterparts in Upper and Lower Egypt.

Finally, it should be noted that the regression results of women who are not currently married provides the same findings. However, husband characteristics are replaced by father characteristics' but don't reveal any significant effects.

5. Conclusion

Using the 2012 Egyptian Labor Market Panel Survey we observe that informality decreases women's contribution to the household budget. Women working in the informal sector are characterized by a group of features, namely uneducated, unskilled, poor and engaging in elementary professions. The majority of women working in informal jobs are struggling to meet household needs. Thus, improving their income levels could lead to reduced household poverty. The succeeding recommendations follow from our results.

- Government should pay attention to women who are working in the services sector as they are more vulnerable. Wages and income policies should be formulated in their favor.
- Government should provide more friendly policies to woman with permanent jobs, as they are more supportive to their families compared to women with part-time jobs.
- Since women in informal employment contribute less, and given that those types of jobs are the only ones that can absorb the large number of illiterate and unskilled, in addition to those with high absenteeism rates due to childcare or household chores; health and safety insurance policies should be made universal to protect bread winners of the households, without risking losing their jobs to more skilled workers if made more attractive.
- The life cycle of women shows that contribution increases with age. This could be maintained through social security benefits.
- Women's contribution increases along with household size and in metropolitan areas. Mitigation of this could be made through awareness programs towards birth control and squeezing family size to enjoy a better standard of living.
- Policies should focus on enhancing the education level of women to improve productivity and support household poverty reduction.

This work just scratches the surface of informality and its effect on economic well-being. Potential future work could exploit the panel structure of the data to analyze the mobility in contribution to household budget due to informality, in order to control for initial contribution that may be important in highlighting gender disparity. This may give circumstantial evidence that favors particular items as driving forces.

References

Amin, S., & DaVanzo, J. (2004). The impact of wives' earnings on earnings inequality among married-couple households in Malaysia. *Journal of Asian Economics*, *15*(1), 49–70. doi:10.1016/j.asieco.2003.12.002

Assaad, R. (2007). Labor Supply , Employment and Unemployment in the Egyptian Economy , 1988-2006. Economic Research Forum Working Papers, (No. 0701).

Barrientos, A. (2002). Women , Informal Employment, and Social Protection in Latin America. Institute for Development Policy and Management, University of Manchester, Disscussion Paper Series, (No.66).

Boehe, D. M., & Barin Cruz, L. (2013). Gender and Microfinance Performance: Why Does the Institutional Context Matter? *World Development*, *47*(Did), 121–135. doi:10.1016/j.worlddev.2013.02.012

Buvinic´, M., & Rao Gupta, G. (2014). Female-Headed Households and Female-Maintained Families : Are They Worth Targeting to Reduce Poverty in Developing Countries ?*. *Economic Development and Cultural Change*, *45*(2), 259–280.

Duflo, E., & Udry, C. (2004). Intrahousehold resource allocation in Cote D'ivoire: Social norms, separate accounts and consumption choices. NBER Working Papers, No. 10498. Retrieved from http://www.nber.org/papers/w10498

El-Zanaty, F., & Way, A. (2009). Egypt Demographic and Health Survey 2008. Ministry of Health, El-Zanaty and Associates, and Macro International, *Cairo, Egypt.*

Faridi, M. Z. (2011). Women ' s Efforts for Family Subsistence : A Rural Study. *Pakistan Journal of Social Sciences (PJSS)*, *31*(2), 319–330.

Funkhouser, E. (1996). The Urban Informal Sector in Central America : Household Survey Evidence. *World Development*, *24*(11), 1737–1751.

Geetha, K. T. (2010). Women in Informal Sector -A Case Study. *Sri Krishna International Research & Educational Consortium*, *1*(2), 23–37.

Hamid, S. (1991). Determinats of the supply of women in labour market :A micro Analysis. *The Pakistan Development Review*, *30*(4 Part II), 755–766.

Khan, T., & Khan *, R. Ej. A. (2009). Urban Informal Sector : How Much Women Are Struggling for Family Survival. *The Pakistan Development Review*, *48*(1), 67–95.

Mallick, D., & Rafi, M. (2010). Are Female-Headed Households More Food Insecure? Evidence from Bangladesh. *World Development*, *38*(4), 593–605. doi:10.1016/j.worlddev.2009.11.004

Ostrovsky, Y. (2012). The correlation of spouses' permanent and transitory earnings and family earnings inequality in Canada. *Labour Economics*, *19*(5), 756–768. doi:10.1016/j.labeco.2012.07.005

Quisumbing, A. R., Haddad, L., & Pena, C. (2001). Are women overrepresented among the poor ? An analysis of poverty in 10 developing countries. *Journal of Development Economics*, *66*((1, October)), 225–269.

Rahman, S., & Jesmin, S. (2003). A Profile of Women's Work Participation Among the Urban Poor of Dhaka. *World Development*, *31*(5), 881–901. doi:10.1016/S0305-750X(03)00016-0

Roushdy, R., & Namoro, S. (2007). Intrahousehold Resource Allocation in Egypt : Effect of Power Distribution within the Household on Child Work and Schooling. *Gender Economic Research and Policy Analysis (GERPA)*, 1–21.

Said, M. (2007). The Fall and rise of earnings and inequality in Egypt : New evidence from the ELMPS , 2006. Economic Research Forum Working Papers No. 0708.

Sajeda, A., & Al-Bassusi, N. H. (2003). Wage Work and Marriage: Perspectives of Egyptian Working Women. *Policy Research Division, Population Council, No. 171*. Retrieved from www.popcouncil.org/publications/wp/prd/rdwplist.html

Sørensen, A. (2003). 13. Economic Relations Between Women and Men: New Realities and the Re-Interpretation of Dependence. *Advances in Life Course Research*, *8*(03), 281–297. doi:10.1016/S1040-2608(03)08013-4

Unni, J., & Rani, U. (2000). Women in Informal Employment in India. *In Paper presented at the International Association for Feminist Economics 2000 conference*. Istanbul: Bogazici University.

Yasmin, F., Amjad, H., & Ahmad, W. (2013). Impact of Earnings on Female Labor Participation : A Case Study of Tehsil Vehari Pakistan. *Middle-East Journal of Scientific Research*, *18*(10), 1390–1395. doi:10.5829/idosi.mejsr.2013.18.10.12402

Figure 1: Women's Contribution to Household Budget by Marital Status

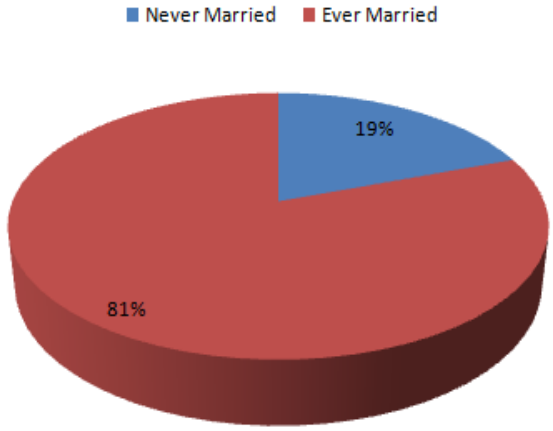

Figure 2: Women's Contribution to Household Budget by Formal/Informal Sector

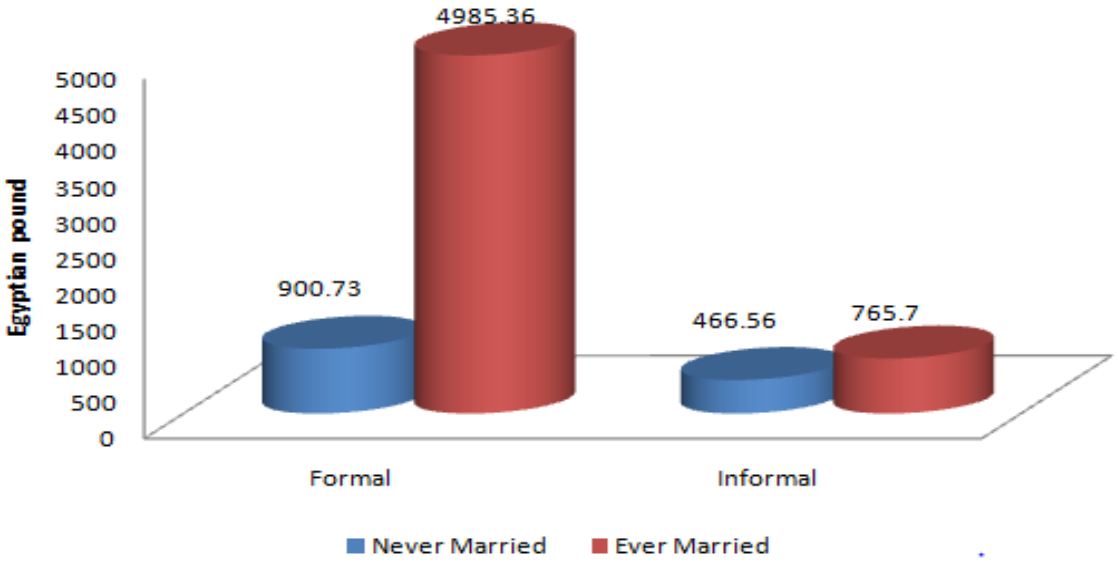

Table 1: Profile of Survey Respondent of Ever Married and Never Married Women

Variables		Ever Married Mean	Ever Married ST.D	Never Married Mean	Never Married ST.D
Woman's contribution in household budget (Ln)	Total contribution of woman to household budget in EGP	6.433	0.759	6.104	0.743
Woman Characteristics					
Informal (no legal contract)	Dummy variable = 1 woman has no legal contract, 0 ow	0.145	0.353	0.357	0.480
Age group1	Dummy variable = 1 woman whose 16-25 years, 0 ow	0.101	0.302	0.420	0.495
Age group2	Dummy variable = 1 woman whose from 26-35 years, 0 ow	0.713	0.453	0.554	0.498
Age group3	Dummy variable where 1=woman's age whose 36 and above years, 0 ow	0.186	0.389	0.027	0.162
Less than secondary	Dummy variable = 1 woman is illiterate , 0 ow	0.170	0.376	0.201	0.402
No education	Dummy variable = 1 woman's highest education is less than secondary level , 0 ow	0.479	0.500	0.353	0.479
Above secondary	Dummy variable = 1 woman's highest education is above than secondary level , 0 ow	0.351	0.477	0.460	0.526
Agriculture sector	Dummy variable = 1 woman is working in agriculture sector , 0 ow	0.034	0.181	0.004	0.067
Manufacture sector	Dummy variable = 1 woman is working in manufacture sector , 0 ow	0.040	0.195	0.134	0.341
Service sector	Dummy variable = 1 woman is working in service sector , 0 ow	0.926	0.262	0.862	0.346
Permanent	Dummy variable = 1 woman has a permanent job , 0 ow	0.838	0.369	0.634	0.483
Part-time	Dummy variable = 1 woman has a part-time job , 0 ow	0.162	0.369	0.366	0.483
Husband Characteristics					
Husband age /woman age	Ratio of husband age to wife age	1.170	0.150		
Years of schooling	Completed years of schooling	13.031	3.923		
Wage employee	Dummy variable = 1 husband is being waged - employed , 0 ow	0.992	0.089		
Self-employee	Dummy variable = 1 husband is being Self - employed , 0 ow	0.001	0.034		
Demographic & Household Characteristics					
Number of children	Number of children	1.073	1.056	0.143	0.399
Number of infants	Number of infants	2.640	0.781	1.996	0.986
Number of male adults	Number of male adults	0.115	0.378	0.719	0.887
Number of female adults	Number of female adults	0.057	0.259	1.335	0.820
Household size	Number of family members	4.291	1.339	4.723	1.909
Upper Egypt	Dummy variable = 1 household is being resident in Upper Egypt , 0 ow	0.329	0.470	0.237	0.426
Lower Egypt	Dummy variable = 1 household is being resident in lower Egypt , 0 ow	0.464	0.499	0.272	0.446
Metropolitan	Dummy variable = 1 household is being resident in Great Cairo, Alexandria and Suez canal , 0 ow	0.207	0.405	0.491	0.501

Table 2: Estimation Results of the Determinants of Ever Married and Never Married Women Contribution to Household Budget

	Ever Married		Never Married	
Variables	**Coefficients**	**St. Errors**	**Coefficients**	**St. Errors**
Woman Characteristics				
Informal (no legal contract)	-0.307***	-0.091	-0.329***	-0.104
Age (reference group= age group 1)				
Age group2	0.094	-0.089	-0.079	-0.115
Age group3	0.253*	-0.134	0.346	-0.311
Educational Level(reference group=Above secondary				
No education	-0.09	-0.067	-0.116	-0.117
Less than secondary	-0.140*	-0.078	-0.232*	-0.138
Economic Activity (reference group=service sector				
Agriculture sector	0.550***	-0.162	0.465	-0.694
Manufacture sector	0.254**	-0.128	-0.202	-0.143
Job Stability (reference group=Part-time)				
Permanent	0.389***	-0.075	0.252**	-0.101
Husband Characteristics				
Husband age /woman age	-0.081	-0.167		
Years of schooling	0.018**	-0.009		
Job Occupation (reference group=wage employee)				
Self- employee	0.033	-0.708		
Demographic & Household Characteristics				
Number of children	-0.119**	-0.047	-0.162	-0.145
Number of infants	-0.143***	-0.047	-0.148*	-0.077
Number of male adults	-0.055	-0.08	0.107	-0.086
Number of female adults	-0.181*	-0.105	-0.159	-0.097
Household size	0.122***	-0.039	0.021	-0.063
Region (reference group=Metropolitan)				
Upper Egypt	-0.124*	-0.07	-0.256**	-0.121
Lower Egypt	-0.212***	-0.065	-0.359***	-0.117
Constant	6.072***	-0.298	6.724***	-0.194
Number of Observation	881		224	
R-squared	0.165		0.246	

Note: *** significant at 1%, ** significant at 5% and * significant at 10%