

Females' Labor Force Participation and Job Opportunities in the Middle East

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Abstract

The Middle Eastern economy suffers from high unemployment, especially among youth. Despite the fact that women comprise over 50 percent of college students in some countries, the unemployment rate among females has been much higher than their male counterparts. Using the available data, this study will compare the socio-economic factors underlying female unemployment in Iran, Egypt and Turkey. The result shows that growth rate per capita income reduces labor force participation (LFP) of women in Iran and Turkey while it has an opposite effect in Egypt. An increase in age dependency ratio decreases LFP of Iranian women but inversely affects LFP of women in Turkey. In Iran's case, the increase in government spending on development projects has led to an increase in the unemployment rate for women.

INTRODUCTION

Middle Eastern economy suffers from high unemployment, especially among youth. Despite low labor force participation (LFP) of females, and the fact that more than 50 percent of college students in many of these countries are women, the unemployment rate among females is much higher than their male counterparts. The increase in education for women in recent decades has provided many women in urban areas with human capital and skills that can benefit society if given the opportunity of employment. High unemployment rate among females not only brings economic costs as lost output but it also brings financial hardship and psychological stress to those unemployed. Studies show that unemployment gives a sense of exclusion and lack of seeing oneself as an active participant in working society, Clark and Oswald (1994).

Low female LFP in the Middle East has attracted research on the underlying factors behind women's willingness and ability to work. The literature studying female LFP considers both demand and supply factors, with the majority focused on micro data using cross sectional analysis. In this paper, I will focus on the three most populated Middle Eastern countries: Egypt, Iran and Turkey¹. Using the available official time series data from the World Bank and other governmental sources, I will evaluate how the position of women in the labor market has changed over the last two decades and what factors are the determinants in women's decision to enter the job market. Then, using unemployment data for both females and males, I will examine variables affecting the rate of unemployment in Iran.

¹ All three countries experienced nationalist movements during early 1900th that brought gender issues and women movements to political stage.

WOMEN'S STATUS IN THE LABOR MARKET

In the Middle East, traditional societies see women as housewives and mothers rather than breadwinners.² As a result, female LFP in the region is among the lowest rate in the world. Over time, the intensity of this notion has changed. Society's expectation of females to work also differs among urban and rural populations, as well as traditional and nontraditional households³.

As shown in Graph 1, labor participation in Egypt, Iran, and Turkey is well below most countries across the world, especially western countries. Rates are even lower for Iran compared to Egypt and Turkey. Culture and tradition account for some of the reasons behind low female LFP. The role of women as mothers and housewives limits their work outside of the home. Society's expectation of men to be the breadwinners of the household further limits women's labor participation outside the home.⁴

However, the Middle East is going through many changes in recent years, including a higher rate of divorce and an increasing number of women who delay marriage. In addition, LFP of females from low income families is not a choice but a

² Olmsted, (2011), shows that the lower rate of poverty among women in the region is associated with the continued norm of males being the breadwinners and the absence of women-headed households.

³ In countries like Iran and Egypt where Islamic Laws are in place, women have managed to participate in work, sport, and education.

⁴ Ilkcaracan, 2012, examines aggregate employment data in the 1955-2009 periods in Turkey and show that the lack of demand side challenge to the male-breadwinner family resulted in institutionalization of the gendered labor division and roles as binding constraints on women's labor supply. The study concludes marriage and motherhood has a substantial negative impact on women's labor market participation. The impact is even higher for women with less than university education. While women are diverse on their reasons for engagement in the labor market, financial independency and improving the living standard of the family are driving factors.

necessity. Many low income families rely on mothers and daughters as breadwinners for a variety of reasons, among them death, inability of male breadwinners⁵ to work, and divorce⁶.

According to Iranian governmental data in 2011, nearly 12 percent of all households in Iran are female headed families. That accounts for 2,500,000 female headed households from which 450,000 are employed⁷ and the rest are either under various welfare assistance from governmental and non-governmental organizations or receive retirement payment from their late husbands' employers. While the majority of female headed households are widowed⁸, the number of female headed households in Iran has increased because of an increase in the number of divorces and delays in marriage. Also, a transformation of the extended family to a nuclear family leaves elderly women on their own without adequate support from other family members.

In Iran, according to official statistics, the average income of female headed households is 43 percent less than male headed households. 43.3 percentage points of female headed households belong to the lowest income quintile, and nearly 76 percent of these families are below the official poverty line.

⁵ Addiction rate has increased in recent years in Iran.

⁶ Divorce rate has increased among urban families in Middle East. For example, in Iran

⁷ Only 18 percent of females who are heads of households are employed and 82 percent are unemployed in Iran according to the most recent report from governmental agencies.

⁸ In Iran, traditionally, widows with small children were discouraged from second marriages. As good mothers, they were expected to stay single and take care of their children. Financially, these households relied on the retirement income of their late husbands, help from other relatives, or government assistance. As a solution to increased poverty among these households, religious leaders are encouraging widows to remarry and encouraging society to eliminate the taboo of the second marriages for widows.

The composition of female employment in different sectors has changed over the years. For example in Turkey, as the rule of family farms and subsistence agriculture has decreased in favor of agribusiness, female employment in the agricultural sector has decreased. Some women have withdrawn from the labor market while others have moved to the service sector⁹.

QUANTITATIVE ANALYSIS

The results of analyzing the data for Egypt, Iran, and Turkey for 1991-2013 are summarized in Table 1. All variables are in log first difference, capturing the responsiveness (elasticity) of labor force participation to changes in dependent variables.

However, examination of the impact of GDP per capita on female LFP in Middle East and North African countries shows variable results across different countries¹⁰. One may argue that as the average income increases and the need for two incomes decreases, LFP by women goes down. These results are significant and consistent in the case of both Iran and Turkey.

Using data provided by the World Bank, the OLS test is run on log first difference of variables in order to capture the impact of the percentage changes in GDP per capita and age dependency ratio¹¹ on LFP of females in Iran and Turkey. The result is presented

⁹ Yanik & Assaad (2004) discuss that gender segregation in the Turkish labor market and women's limited geographical mobility have restricted women to female-appropriate job opportunities in the local job market. In their study, they use the composition of local labor market as a proxy for the gender appropriateness of jobs.

¹⁰ For example, Verme, P & et al (2014) do not find any impact of change in GDP per capita on female labor force participation in Morocco.

¹¹ Age dependency ratio is the ratio of dependents--people younger than 15 or older than 64--to the working-age population--those ages 15-64.

in Table 1. The impact of age dependency ratio on female LFP is twofold. On the one hand, the case of women as caregivers, younger women feel more burdened as dependency ratio increases and it forces them to reduce their participation in the formal labor market. On the other hand, as dependency ratio decreases, older women may see a reduction in financial support coming from their children and so they stay longer in the job market even at their older age.

The results are conflicting between Iran and Turkey. In Iran, there is an inverse relationship between age dependency ratio and female LFP, which could be explained by the role of women as caregivers. As the number of children and/or aging relatives increases, women are obligated to stay home rather than work outside. In Turkey, there is a significant positive relationship between the growth rate of age dependency and the growth rate of female LFP which emphasizes that when age dependency increases, more older women stay in the job market to support themselves rather than relying on help from their families. Additional studies on the impact of the number of children on LFP show that LFP is inversely related to the number of children per women in both Iran and Turkey. Having fewer children at home enables more time for mothers to engage in outside activities and seek employment.

These results are also consistent with other studies on the impact of per capita income on female LFP (Karshenas 2001). As per capita income increases, one income, along with government's provisions for married men, become sufficient enough to not need supplemental income from women working outside the home.

In the case of Egypt, neither age dependency nor per capita GDP is a significant variable affecting female LFP when the data is applied to the same equation as the ones for other countries (See Table 1). Higher growth rate of GDP per capita reflects higher economic growth and more job opportunities. When tertiary education is added as an additional explanatory variable, per capita GDP becomes significant with a positive sign. However, the growth rate in tertiary education has a negative significant impact on female LFP. When women pursue higher education, they remain longer out of the job market and as a result, LFP decreases.

FEMALE UNEMPLOYMENT

As shown in graph 2, the unemployment rates among women in Egypt and Iran are significantly higher than their male counterparts. In Turkey, female LFP has been higher than in both Iran and Egypt. Changes in the unemployment rate of Turkish women have been in line with changes in the unemployment rate for men¹² over most decades. However, in recent years, the gap between the unemployment rate among women and men is increasing even in Turkey, indicating fewer job opportunities for women.

According to the governmental data in Iran, unemployment rates among youth ages 15-24 in summer 2006 have been 30.1 and 18.2 respectively for females and males. The government's effort to reduce unemployment rate via different short-term projects has led to a reduction by 2.5 percent of unemployment rate among males. However, the same projects increased the unemployment rate among females in the same age groups by 1.9 percent.

¹² Because of the growth in female labor intensive industries in export sector, Turkey experienced an increase in female employment in textile and apparel industries.

Employers are often hesitant to hire female workers. Women may have limitations in working long hours or traveling because of their family responsibilities or cultural constraints. In addition, some women may interrupt their careers due to marriage or having children. For employers, hiring women, especially those newly graduated from college, is not cost efficient since they have to spend money training inexperienced workers. They prefer to make this investment on male employees who they perceive are more likely to stay in the jobs.

In the most Middle Eastern countries, the demand for women workers is mostly limited to “female appropriate” jobs. When the job market is segregated across genders,¹³ economic structure and the nature of industries matter. The institutional environment plays an important factor in the lack of employers’ willingness to hire women.¹⁴

When investigating the employment allocation across industries by gender in the Turkish economy, we see that employment in the service sector is equally divided among men and women in 2012 (see graph 3). Historically, women’s employment in the agricultural sector has been higher compared to men’s engagement in the sector. According to 2012 data, comparing the allocation of men and women’s employment

¹³ Demand side interpretation is provided by Ragui Assaad (2005) focusing on high oil revenue leads to Dutch disease. Appreciation of real exchange rate hurts competitiveness of tradable goods and stronger employment growth in non-tradable goods like service and construction. Then arguing that sector related to tradable goods were the one that used to hire more women and as tradable sector shrunk lead to defeminization of labor force.

¹⁴ El-Ehwany & Metwally (1999) argue that the labor market structure in Egypt has created feminization of unemployment. They conclude job creation strategy in Egypt should aim in creating jobs in labor intensive sectors while increasing labor market productivity.

across sectors, the data show that still more women work in the agricultural sector while more men are working in industries. However, when we compare the allocation of female employment across sectors in 2005 and 2012, as in graph 3, female employment in the service sector has increased as employment in agricultural sector has decreased. As the agricultural sector in Turkey becomes more capital intensive, many households are leaving rural areas for cities. As a result, some women begin working in the service sector in urban areas while others leave the labor market completely, which is evident by the decreasing female LFP in Turkey in recent years.

The number of females working in unpaid family work or in the informal market is increasing across all countries. According to the 2013 official statistics of Turkey¹⁵, around 30 percent of adult women in Turkey participated in the labor market while one third of them were unpaid family workers. The number of women as employers or working for themselves is very small, accounting for only 8 percent of all employers and 17 percent of all self-employed workers in the Turkish economy. During the last decade, while the overall number of unpaid family workers in Turkey has decreased, the number of women working these jobs has increased. In 2012, women composed 75 percent of all unpaid family workers of which the majority worked in the agricultural sector. The number of women working in the agricultural sector in Turkey has stayed steady. while the number of women hired in the non-agricultural sector has increased by 51 percent from 2004 to 2013.

In Egypt, 95 percent of working women are equally divided between the agriculture and service sectors, and only 5 percent of working women are employed in

¹⁵ TURKSTAT, The results of Household Labor Force Survey

industries¹⁶. In Iran, many female labor intensive industries like carpet and textile have suffered setbacks because of global competition and the impact of economic sanctions¹⁷, and as a result, employment opportunities for many women have decreased.

In many Middle Eastern countries, educated women in urban areas mainly work in the public sector. Following recent structural reforms and privatization in many Middle Eastern countries, the public sector has reduced its hiring. As a result, the employment rate of highly educated women has decreased. As many studies have shown, female unemployment rate tends to increase with education. Due to a scarcity in public sector jobs, women with higher education seek informal employment since the private sector has not increased its hiring of women.

QUANTITATIVE ANALYSIS

Using data from 1991 – 2013 in Iran, regression analyses are applied to investigate the impact of several variables effecting changes in female unemployment rates. The same tests are repeated using unemployment rate for men in order to make a cross gender comparison. The result of the tests is presented in Table 2.

As the number of females pursuing higher education in Iran has increased, many are concerned how this will affect their job prospects. Women with tertiary education should possess higher human capital and should realize more opportunities in the job market. However, the results show that as women's participation in higher education

¹⁶ 2011 World Bank Data

¹⁷ Ross (2008) suggests much of the low female labor force participation in Middle Eastern countries can be explained by the oil income in these countries which increased women's unearned income and hence increases their reservation wage.

increases so does their unemployment rate. Repeating the same test for men shows an opposite result. Men with tertiary education have better job prospects compared to men without. Further investigation is needed to see if this is due to pure market discrimination or due to the type of majors that men and women are choosing to study¹⁸.

The impact of the Iranian government's spending on development projects on the unemployment rate is controversial. While the increase in government spending is improving employment prospects for men, it is having an inverse effect on employment opportunities for women. Since many of the Iranian government's projects have been either in the construction sector or in capital intensive industries, they have created more job opportunities for men while they have taken away resources from the projects that generate employment for women.

The unemployment rate of the opposite gender is included in the regression in order to test the perception that female employment takes away job opportunities from men. The results show this is not the case. The job market for men and women in Iran is rather segregated based on gender. The direct relationship between the unemployment rates for men and women points to the fact that the recent increase in the unemployment rate is due socio-economic factors rather than a competition between the genders for employment.

CONCLUSION

In general, female LFP in the Middle East is the lowest of any region in the world. By investigating the factors affecting low female LFP, I find higher per capita income to

¹⁸ Women with professional degrees have better job prospects compare to women who hold bachelor degrees in non-professional fields.

be an important discouraging factor in women's labor supply both in Iran and Turkey. Since cultural factors discourage female LFP, an increase in per capita GDP takes away the economic necessity of women's work outside the home. Empirical tests show an inverse relationship between age dependency and female LFP in Iran. This indicates that when women have fewer caregiving responsibilities, they are more like to work outside the home. In the case of Turkey, an increase in age dependency leads to more participation of women in the labor market. This could be explained by a lower level of welfare assistance to female headed families and elderly in Turkey compared to Iran. As age dependency increases, women in low income families have to work in order to support their families.

The unemployment rate in Turkey is not different among men and women for most of the years of the study. In recent years the rate of unemployment among women is increasing faster than their male counterparts. That could be because of a decrease in number of people working in the agricultural sector in which more women work than men. In regards to Iran and Egypt, more in-depth investigations are needed in order to pinpoint the factors that, in addition to cultural norms, are causing the higher rate of unemployment among females.

Investigating factors affecting the unemployment rate in Iran shows that women's college education has not helped to lower their unemployment rate. The results also reveal that government development programs are helping job creation for men, but crowding out job opportunities in sectors that are female intensive.

In conclusion, more work is needed on the impact of governmental policies and the availability of credits on female employment in the Middle East. Because of segregated labor markets, different economic policies dealing with booms and busts in the economy are not gender neutral. The financial market is very immature and inefficient in the Middle East, and access to the financial market and borrowing is mostly limited to those already established in the economy. Family connections and favoritisms also give preference to males rather than females. The number of women as entrepreneurs and employers is very limited in Iran, Turkey, and Egypt, composing only 5 percent of all employers in each of the countries. Increased availability of funding to females entrepreneurs to start their own businesses could help increase women's engagement in the formal labor market. Clearly, there is a need to bolster female LFP in the Middle East; further studies will illuminate new strategies to increase job opportunities for women in these countries.

Table 1: Factors affecting LFP of females

Iran

	<u>OLS</u>	<u>2SLS</u>	<u>GMM</u>	<u>COINTREG</u>
Constant	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.02 (0.02)
GDP per Capita	- 0.19* (0.09)	-0.19* (0.09)	-0.10 (0.06)	-0.21** (0.10)
Age Dependency	- 0.92** (0.36)	-0.92** (0.36)	-0.80** (0.33)	-0.63 (0.39)

Turkey

	<u>OLS</u>	<u>2SLS</u>	<u>GMM</u>	<u>COINTREG</u>
Constant	0.14** (0.06)	0.14* (0.07)	0.15** (0.04)	0.15** (0.06)
GDP per Capita	-0.19** (0.03)	-0.19** (0.08)	-0.19** (0.06)	-0.19** (0.06)
Age Dependency	9.13* (4.64)	9.13* (4.64)	10.26*** (3.26)	10.38** (3.85)

Egypt

	<u>OLS</u>	<u>2SLS</u>	<u>GMM</u>	<u>COINTREG</u>
Constant	- 0.06 (0.04)	- 0.1 (0.06)	- 0.10* (0.04)	-0.04 (0.03)
GDP per Capita	0.38** (0.14)	0.55* (0.23)	0.55*** (0.14)	0.30* (0.10)
Age Dependency	-3.34 (1.85)	-5.42 (2.93)	-5.24** (2.01)	-3.08* (1.31)
Tertiary Education	-0.32* (0.14)	-0.69* (0.30)	-0.66*** (0.18)	-0.26* (0.11)

Notes: ***, **, * denote statistical significance at the 1, 5, and 10 percent levels, respectively. Standard errors are in parenthesis.

Table 2: Factors affecting Unemployment Rate in Iran

Female Unemployment Rate as Independent Variable

	<u>OLS</u>	<u>TOLS</u>	<u>GMM</u>	<u>COINGRA</u>
Constant	-0.09** (0.03)	-0.13** (0.05)	-0.13*** (0.03)	-0.90** (0.03)
Tertiary Education	0.67** (0.25)	0.82* (0.39)	0.82* (0.38)	0.66** (0.05)
Government Development Spending	0.13** (0.06)	0.30** (0.12)	0.30** (0.10)	0.13** (0.05)
Male Unemployment	1.11*** (0.16)	1.15** (0.25)	1.15*** (0.33)	1.11*** (0.16)

Male Unemployment Rate as Independent Variable

	<u>OLS</u>	<u>TOLS</u>	<u>GMM</u>	<u>COINREG</u>
Constant	0.08*** (0.02)	0.11** (0.04)	0.11*** (0.02)	0.08** (0.03)
Tertiary Education	-0.63*** (0.18)	-0.71** (0.28)	-0.71** (0.24)	-0.60** (0.18)
Government Development Spending	-0.11** (0.05)	-0.26** (0.11)	-0.26** (0.10)	-0.11* (0.06)
Female Unemployment	-0.78*** (0.12)	0.87*** (0.19)	0.87*** (0.25)	0.80*** (0.13)

Notes: ***, **, * denote statistical significance at the 1, 5, and 10 percent levels, respectively. Standard errors are in parenthesis.

DATA

Source: World Bank

LFP: Labor force participation rate, female (% of female population ages 15-64)
(modeled ILO estimate)

Age dependency ratio (% of working-age population): Age dependency ratio is the ratio of dependents--people younger than 15 or older than 64--to the working-age population--those ages 15-64. Data are shown as the proportion of dependents per 100 working-age population.

GDP per capita (Current US\$): GDP per capita is gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current U.S. dollars.

Fertility rate, total (births per woman): Total fertility rate represents the number of children that would be born to a woman if she were to live to the end of her childbearing years and bear children in accordance with current age-specific fertility rates.

Employees, agriculture, female (% of female employment) Employees are people who work for a public or private employer and receive remuneration in wages, salary, commission, tips, piece rates, or pay in kind. Agriculture corresponds to division 1 (ISIC revision 2) or tabulation categories A and B (ISIC revision 3) and includes hunting, forestry, and fishing.

Employees, industry, female (% of female employment): Employees are people who work for a public or private employer and receive remuneration in wages, salary, commission, tips, piece rates, or pay in kind. Industry corresponds to divisions 2-5 (ISIC revision 2) or tabulation categories C-F (ISIC revision 3) and includes mining and quarrying (including oil production), manufacturing, construction, and public utilities (electricity, gas, and water).

Employees, services, female (% of female employment): Employees are people who work for a public or private employer and receive remuneration in wages, salary, commission, tips, piece rates, or pay in kind. Services correspond to divisions 6-9 (ISIC revision 2) or tabulation categories G-P (ISIC revision 3) and include wholesale and retail trade and restaurants and hotels; transport, storage, and communications; financing, insurance, real estate, and business services; and community, social, and personal services.

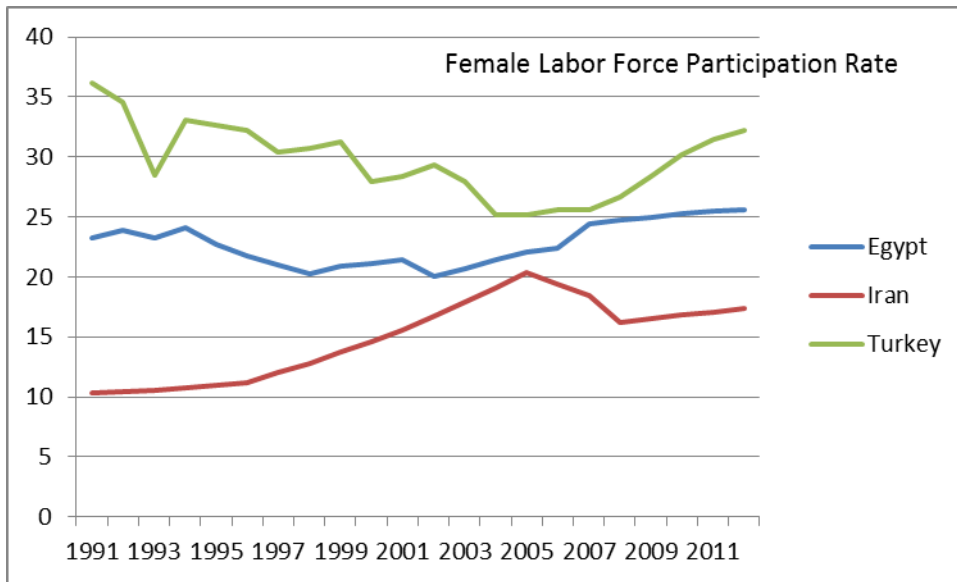
Labor force with tertiary education, female (% of female labor force): Labor force with tertiary education is the proportion of labor force that has a tertiary education, as a percentage of the total labor force.

Labor force with tertiary education, male (% of male labor force): Labor force with tertiary education is the proportion of labor force that has a tertiary education, as a percentage of the total labor force.

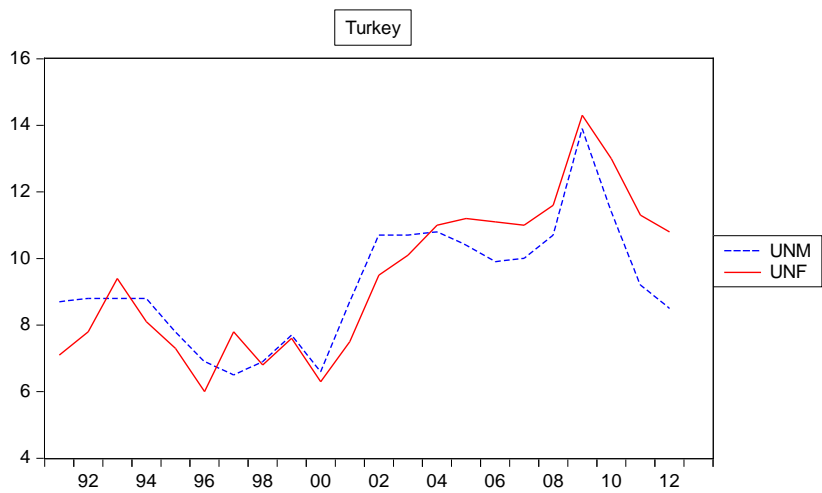
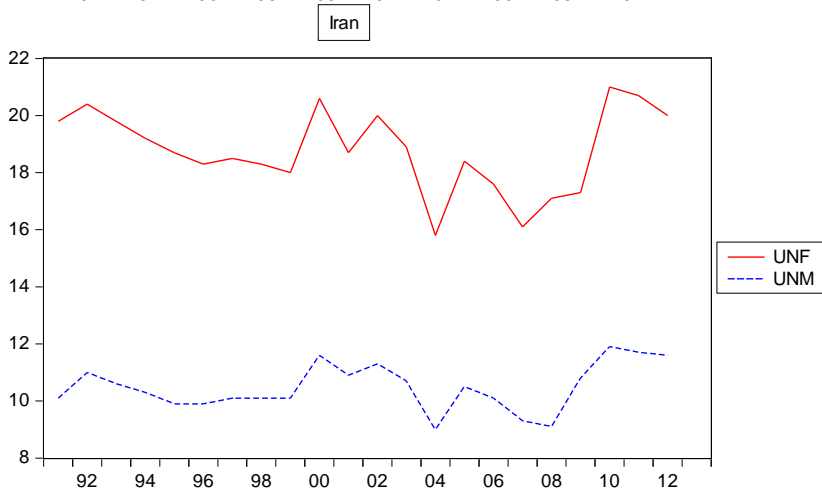
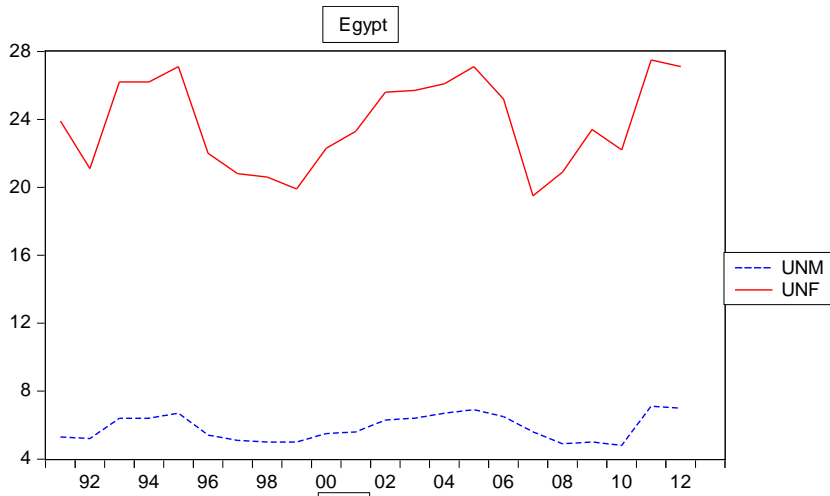
Source: Iran's Central Bank

Government Development Spending

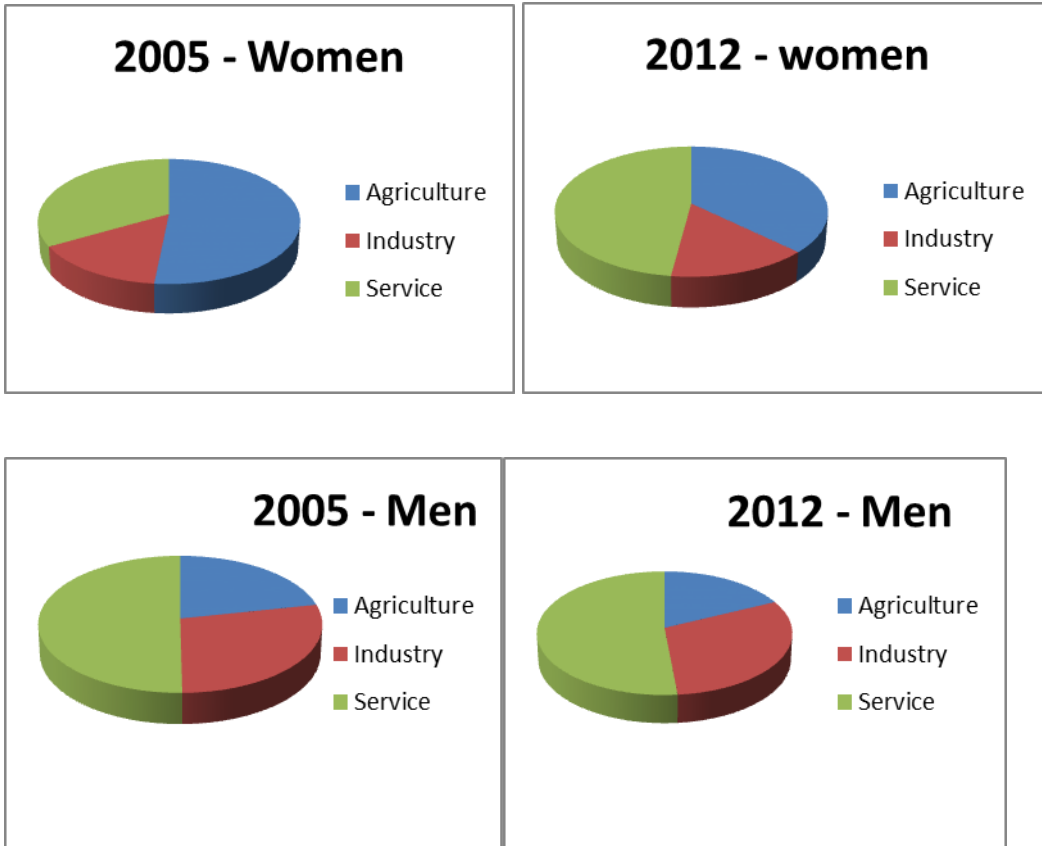
Graph 1: Female Labor Force Participation Rate, 1991 - 2012



Graph 2: Unemployment Rate



Graph 3: Allocation Employment across sectors in Turkey



REFERENCES

Assaad, Ragui and Fatma El-Hamidi. (2002), : "Female Labor Supply in Egypt: Participation and Hours of Work." In Human Capital: Population Economics In The Middle East. Ismail Sirageldin (Ed.). Cairo: American University in Cairo Press, pp. 210-230.

Assaad, Ragui and Melanie Arntz, (2005), "Constrained geographical mobility and gendered labor market outcomes under structural adjustment: Evidence from Egypt," *World Development* 33(3): 431-454

Bahramitash, Roksana (2012), "Revolution, Islamization, and Women's Employment In Iran", *The Brown Journal of World Affairs* IX.2 (2003): 229-41. Watsoninstitute.org.

Bahramitash, Roksana, and Hadi Salehi Esfahani, "Veiled Employment: Islamism and the Political Economy of Women's Employment in Iran" Edited volume, Publication Year: 2011

Bayat, Asef, project Muse, Scholarly Journals Online,
Clark, A. E. and A. J. Oswald. (1994), "Unhappiness and Unemployment" *Economic Journal*, 104(424), pp 648-659

Behdad, S., and F. Nomani. 2006. *Class and Labor in Iran: Did the Revolution Matter?* Syracuse, NY: Syracuse Univ. Press.

Bespinar, Fatma Umut, (2011), "Women in Turkey: Caught between Tradition and Modernity," In: Sadiq, Fatima & Ennaji, Moha (ed.), *Women in the Middle East and North Africa Agents of Change*, Routledge, pp. 173 – 187

El-Ehwany, Naglaa, and Manal Metwally, (1999), "Labor Market Competitiveness And Flexibility In Egypt," Working Paper 0129, Economic Research Forum For Arab Countries, Iran And Turkey

Ilkcaracan, Ipek, (2012), "Why so few women in the labor market in Turkey," *Feminist Economics*, 18(1), 1–37

Karshenas, Massoud, (2001), "Economic Liberalization, Competitiveness, and Women's Employment in the Middle East and North Africa, In: Salehi-Isfahani, Djvad, (ed.), *Labour and Human Capital in the Middle East*. Ithaca Press (UK), pp. 92-147

Moghadam, Valentine M. (2004), "Women in the Islamic Republic of Iran: Legal Status, Social Positions, and Collective Action"

Olmsted, Jennifer C. "Gender and Globalization : The Iranian Experience." *Veiled Employment*. Syracuse UP, 2011. 25-52. Olmsted, Jennifer C. "Gender and Globalization : The Iranian Experience." *Veiled Employment*. Syracuse UP, 2011. 25-52

Razavi, Seyed Mohsen and N Karshenas, M. and Valentine M. (2001):“Female Labor Force Participation and Economic Adjustment in the MENA Region.” In The Economics of Women and work in the Middle East and North Africa . E. Mine Cinar (Ed.) Research in Middle East Economics, Vol. 4. Amsterdam: JAI Press, pp. 51-74.

"Its the Economy, Stupid.".Full Text AvailableBy: GHADAR, FARIBORZ; SOBHANI, ROB. Harvard International Review, Spring2011, Vol. 33 Issue 1, p22-26, 5p

Urbanization and Women's Citizenship in the Middle East.Full Text AvailableBy: MoGHADAM, VALENTINE M.. Brown Journal of World Affairs, Fall/Winter2010, Vol. 17 Issue 1, p19-34, 16p

Ross, M. L. (2008), “Oil, Islam and Women.” American Political Science Review 102 (1). 107-123.

Tabnak, Iranian News Site, 2014, Unemployment among female head of households in Iran

Tansel Aysit, (2002), “Economic Development and Female Labor Force Participation in Turkey: Time-Series Evidence and Cross-Province Estimates, Economic Research Forum of Arab Countries, Iran, and Turkey, Working Paper 0124

Verme, Paolo, Abdoul Gadir Barry, and Jamal Guennouni (2014), “Female Labor Participation in the Arab World: Some Evidence from Panel Data in Morocco,” World Bank, Policy Research Working Paper 7031

Yanik Bengi and Rughy Assaad, (2004), Women's participation in paid work in urban Turkey: do local demand factors matter