Gender, Jobs, and Informality: Young Women's Economic Participation in Egypt 2009-2014

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Contents

ABSTRACT

The five years from 2009 to 2014 saw what were already challenging labor market conditions for young women in Egypt deteriorate further. In both 2009 and 2014 over 80 percent of this population remained out of the labor force altogether, meaning labor force participation was below 20 percent. However the challenges faced by yougn women in Egypt extended beyond low labor force participation. During this period, labor force retention was extremely low–of the young women who were employed in 2009, more than 50 percent of them had dropped out of the labor force by 2014. These women came disproportionately from informal and temporary jobs. They were driven out of the labor force in part by the bad working conditions associated with informal jobs, including low pay, long hours, and harassment at work. These conditions also interacted with societal factors such as marriage to increase the likelihood that women left the labor force during this period. These findings highlight the importance of improving the working conditions of young women in Egypt in order to increase retention and therefore labor force participation.

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Chapter 1

Introduction

The presence of women in the labor market remains below its potential across the globe. Female labor force participation is significantly lower than that of males in many parts of the world, especially the developing world. This is true despite the fact that increasing economic participation by females has been shown to lead to positive outcomes both for the status of females on an individual level as well as for society as a whole.

From a rights and status perspective, increased female labor force participation has been proven to provide women with more bargaining power and a greater voice as they gain more economic sway in their families and greater freedom of movement. This power leads to higher levels of equality on both a societal and individual basis. Women have been found to invest more highly in education, especially for girls, which can lead to a cycle of improvement (Elborgh-Woytek et. al).

From a societal perspective, ample evidence shows that increases in female labor force participation lead to substantial macroeconomic gains. As more women enter the labor force, economic development increases because labor input increases (Elborgh-Woytek et al). More women in the labor force also means that there is a wider pool of talent for companies and the government to utilize.

Egypt has consistently ranked among the worst countries in terms of women's economic participation. In 2014, the World Economic Forum ranked Egypt as number 131 out of 142 countries in terms of female economic participation and opportunity in their Gender Gap Report. In the same report, Egypt was ranked number 136 out of 142 countries in labor force participation specifically. Labor force participation among females in Egypt has remained steadily lower than 25 percent over the past several decades. Young women in Egypt are in a particularly bad situation because they sit at the intersection of the issues affecting females in the labor market and the challenges facing all youth in the labor force in the country.

Egypt has an extremely young population, with almost 50 percent of people under the age of 29 (LaGraffe). This "youth bulge" presents an enormous opportunity because a large percentage of the population is able to work, which in theory allows for higher levels of production. However this youth bulge also poses a challenge for both social services and job creation. Despite steady growth in the Egyptian economy until recently, labor markets have been unable to keep pace with the growing labor force. As a result, youth unemployment has remained consistently high, staying over

20 percent.

The challenges faced by young women in the labor market are persistent problems that have been in existence for decades. Much of the research that has been done on their origins and causes relates to these historical roots and longer term trends. Yet over the past eight years Egypt has undergone a series of major changes: an economic crisis, a revolution, and ongoing political instability and security challenges. All of these changes have had an effect on the economy, and therefore on the state of young women's economic participation.

Egypt's strong economy has been a factor in making it a major player in both the Middle East and Africa. However the Egyptian economy has declined dramatically since the global economic crisis in 2008. In 2007, Egypt's GDP was growing at a rate of over seven percent per year. By 2009 it had declined to less than five percent, and after hitting a low of 1.8 percent in 2011 it has stayed at a steady two percent per year since then (World Bank). This decline in GDP growth was the result of declines in foreign investment and a struggling tourism industry, among other factors.

On the political front, 2011 saw a revolution in Egypt that led to the overthrow of former president Hosni Mubarak. Since this revolution, the political situation in Egypt has been unstable, and leadership of the country has passed between multiple groups. Protests and clashes continue across the country, both between the government and citizens and between groups of citizens. Meanwhile a growing threat from violent Islamist groups associated with ISIS in the Sinai Peninsula has caused an

ongoing security crisis.

The immense change that the country has undergone has led to changes in the economic and political situation that in turn have affected the labor market opportunities open to young women in Egypt. This time period also saw the continuation of longer term trends and changes. Yet little research has been done on exactly what these changes are, and how drastic they are. The goal of this paper is to understand how the economic participation of young women in Egypt has evolved during this period of change. Specifically, it seeks to examine how the employment and labor force participation of these young women changed between 2009 and 2014.

I find that the five years from 2009 to 2014 saw what was already a challenging situation for young women in the Egyptian labor market deteriorate further. In both years, the vast majority of the young female population remained out of the labor force. Over the course of those five years, female employment rates went down, while unemployment rates went up. Beyond the challenges of falling female labor force participation, labor force retention was extremely low during this period. In fact, of the young women that were employed in 2009, only 50 percent of them were still employed in 2014. I find that this low retention was related to the type of job and workplace conditions that the young women experienced in 2009. Specifically, the women who dropped out came disproportionately from informal jobs, and reported high rates of bad working conditions. These challenges also interacted with societal expectations and external factors such as marriage, age, and education to cause women to leave

the labor force. This suggests that addressing low labor force participation among young Egyptian women requires improving the working situations available to them and formalizing the jobs they have access to.

The primary data source used in this analysis is from the Survey of Young People in Egypt (SYPE), which was carried out by the Population Council in 2009 and 2014. The SYPE is a nationally representative panel survey that covers topics including health, education, employment, and civic participation. The 2009 survey covered about 15,000 individuals between the ages of 10 and 29. The 2014 survey covered about 10,000 of the same individuals, who were then between the ages of 15 and 34. For the purposes of this research I will focus only on individuals between the ages of 16 and 28.

The SYPE data is supplemented with a small amount of data from the Egyptian Labor Market Panel Survey that was carried out in 1998 and 2006. The ELMPS is produced by the Economic Research Forum. Some of the ideas in the paper are also based on qualitative research carried out in Cairo in August and September 2015. The interviews in this qualitative research were primarily carried out with social workers and young people.

Chapter two of this provides background information, covering previous literature on females and youth in the Egyptian labor force, as well as some empirical information on the employment conditions of young women. Chapter three examines changes in the labor market for females in Egypt between 2009 and 2014. This includes both

overall changes and changes in individual status. Specifically, the chapter examines why fifty percent of the young females that were employed in 2009 had dropped out of the labor force by 2014. Chapter five concludes and discusses policy implications.

Chapter 2

Background

Young women sit at the intersection of the issues faced by young people and women in Egypt, and face the challenges of both groups. On one hand, young people in Egypt experience persistently high unemployment rates and poor workplace conditions. On the other hand, women in the Egyptian labor force face discrimination, harassment and the challenge of balancing demanding household work expectations with holding a job. This combination of factors leads to low levels of labor force participation among young women, despite steadily improving educational outcomes. This section will introduce the landscape of challenges and opportunities faced by young women in the Egyptian labor market. We will look first at the challenges faced by youth in the country, and then those faced by women. Lastly, we will take a more quantitative look at the current labor force and employment conditions of young women in Egypt. We will look first at employment conditions, including types of employers, stability

of employment, and prevalence of labor contracts among young women. Secondly, we will look at the determinants of labor force participation and employment for this population.

2.1 Youth in the Egyptian Labor Market

The problems faced by youth in Egypt stem largely from the current demographics of the country. Between 1950 and today Egypt grew over 378 percent to reach its current population of about 82 million (LaGraffe). More than a quarter of this population is between the age of 15 and 29 (LaGraffe). This "youth bulge" has put enormous pressure on the labor markets in Egypt. The results of this labor market pressure are high rates of unemployment and underemployment and very low job satisfaction rates among youth.

Egypt has had persistently high unemployment rates for decades. This unemployment problem is highly concentrated among the youth. Close to 90 percent of the unemployed in Egypt are between the ages of 15 and 29 (LaGraffe). This high unemployment problem is due to a combination of problems with a supply and demand mismatch and an overall lack of employment opportunities.The mismatch is related to changes in the education and skills of young Egyptians. Large increases in educational attainment among youth in recent years has led to an increase in the skill set of the workforce that doesn't match available jobs (Amer). Additionally, the quality of education in Egypt is largely not up to the quality expected by large or international

companies (Mohamed). This has meant that the employment expectations of young educated Egyptians often go unmet. The unemployment rate actually increases with education for both young females and males (LaGraffe).

Aside from this mismatch between skills demanded and supplied, there is also an overall shortage of jobs. Although Egypt has seen fairly steady economic growth over the past half century, this growth has not been matched by growth in the job market. The government's economic policies encouraged growth in industries that were capital intensive, such as manufacturing, but did not require large scale hiring (Mohamed). The industries that have traditionally hired in large numbers have seen some of the most volatile growth rates in Egypt, especially construction and tourism. In the mid to late 20th century, the shortage of jobs was partially countered by government policies that guaranteed government jobs to anyone with a secondary education (Barsoum). However this policy was rolled back in the late 1980s, and the decline in public sector jobs has not been matched by an increase in jobs in the private sector (Mohamed).

Beyond unemployment, youth in Egypt face a variety of other labor market challenges. Among the most persistent of these are widespread underemployment, immobility within the labor market, and informality. Underemployment occurs when an individual has a job but is working fewer hours than they would like to. It is not reflected in traditional measures of unemployment, but can lead to many of the same problems as unemployment. It is exacerbated by immobility within the labor

market that keeps individuals from improving their work conditions and moving into full time jobs. About half of all young men and 85 percent of young women don't change their labor market status over the course of the first six years after they first enter the labor market (Mona). There is also very little movement between different segments of the economy and types of work (Mona).

This immobility is particularly concerning given the increasing deformalization of the labor market for youth. The distinction between formal and informal work can be made based on the presence of contracts and social insurance. For the purpose of this paper we will define formal work as work in which there is either a work contract or social insurance provided. Informal work is associated with a variety of problems. In particular, those employed in the informal workforce do not have protection against workplace mistreatment, which can lead to incidents such as termination without warning, extremely long work hours, and low pay (Mona). Studies have consistently shown that youth working in the informal labor market in Egypt experience substantially lower levels of job satisfaction than those working in the formal sector (Barsoum).

Since the 1980s, there has been a large increase in the informality of the jobs that young Egyptians are working in. This is particularly true for young males. Approximately two thirds of young men get jobs in the informal sector after finishing their education. Most will stay in this sector for a substantial period of time. Informality is higher among the less educated population, but this may in part be due to

an unwillingness of the more educated group to take jobs that they don't consider up to their standards rather than a greater availability of formal jobs for the more educated. Many people see the solution to problems of informality as getting a job in the public sector, which is more standardized and protected. The formal private sector is small enough that many don't consider it a serious option. Most youth say they would accept a job in the public sector even if it paid less than an informal job in the private sector.

Job shortages and deformalization have a particularly strong effect on the female population. While there have been increases in informality for some groups of women, overall women are far more likely to drop out of the labor market altogether when there aren't appropriate jobs available. The share of the young female population that is inactive has been increasing since the 1990s, and increased 35 percent between 2006 and 2012 alone (Mona).

2.2 Women in the Egyptian Labor Market

Women in Egypt deal with a wide variety of challenges in the labor markets. These challenges are tied to many of the same issues that affect the labor market outcomes of Egyptian youth, but they also go beyond these issues. Perhaps the most concerning facet of the female labor market is the persistently low labor force participation among women in the country, which remains under 25 percent (Hendy). Beyond this low labor force participation, the labor market in Egypt is highly segmented along

gender lines. Ninety-five percent of all females that are employed in non-governmental positions work in one of nine types of jobs, particularly clerical work, teaching, and domestic services (Assaad and Arntz).

This low labor force participation rate has stayed consistent despite large improvements in educational attainment among Egyptian women in recent decades (Assaad). While labor force participation increased slightly between 1998 and 2006, it declined between 2006 and 2012 (Hendy). The problem is particularly bad for rural women, who have even lower than average labor force participation rates. The reasons for these persistently low labor force participation rates are multifold, and have cultural, economic, and political origins. The reasons also relate to problems in both the supply and demand of labor.

A number of authors have pointed to cultural and religious norms as a reason for low female labor force participation. It is customary for women to be in charge of caring for their home and children. This usually means that women are responsible for about 30 hours a week of household work if they are married, and about 10 hours a week if they are not (Hendy). Studies have shown that employed women are still expected to put an equal amount of time into household work, resulting in them working extremely long and exhausting combined hours (Hendy). Interestingly, the expected number of hours of household work actually increases among more educated Egyptians (Hendy). As a result of these household work expectations, many women will drop out of the labor force when they get married. However these cultural expla-

nations only go part way in explaining the extent of the low labor force participation, especially among unmarried Egyptian women.

Another set of potential explanation for low female labor force participation in Egypt has to do with economic and policy trends. Ragui Assaad has made the argument that low participation is linked to government policies that promoted the growth of industries that are typically associated with male labor, while leaving other industries behind. Specifically, he postulates that the structural adjustment policies that the Egyptian government pursued in the late 20th and early 21st centuries had this effect (2001). These policies promoted growth in male-dominated industries such as tourism, while the traditionally female sectors lagged behind. Moghadam, on the other hand, argues that low labor force participation is related to the regional oil boom of the 1970s (1995). She argues that the oil boom provided enough opportunities for Egyptians to make money in neighboring countries and send it home that it was unnecessary for females to work in many families (1995). This effect combined with gender norms to maintain low labor force participation in the country.

Other authors have pointed to the poor workforce conditions and employment discrimination that women face in Egypt as reasons for low labor force participation. These theories relate most directly to chapter two of this paper, and will be discussed from an empirical perspective in that section. Studies have shown that women are consistently paid less than men, especially in the private sector (Assaad 2015). These discrepancies derive in part from the fact that many employers in Egypt have the

misconception that the income earned by women is not crucial to overall household income (Barsoum). At the same time, women often face discriminatory hiring practices. Employers are often reluctant to hire females because they are concerned they will leave the job when they become married (Barsoum).

Women who do manage to find jobs are often subjected to inhospitable working conditions. While a smaller percentage of employed females are in the informal labor force than males, informal work is still very common. Most women working in the private sector do not have contracts or any form of insurance (Barsoum). This prevents them from having any recourse should their employer commit any wrongdoing, including not paying them after they work. This means that labor laws are often breached, and many women work extremely long hours for little pay. Not having a contract also keeps women from being able to participate in government pension plans, since these are based off of contracts (Barsoum).

Beyond these concrete imbalances, there are also less tangible inequities in the workplace. In Ghada Barsoum's 2014 interviews with young Egyptian women working in the private sector she found that two of the most important issues for these women were respect and decent treatment from employers, who were predominantly male. The women spoke of concerns around the suitability of various workplaces, and of ideas of morality, chastity, and general reputation. In particular, many women feared sexual harassment from their employers, co-workers, or customers. (2014)

The combination of these factors means that women generally strongly prefer work

in the public sector rather than the private sector. Government jobs are perceived as offering a greater level of stability because they have contracts as well as social insurance (Barsoum). They are also considered to be safer places to work because of the high percentage of women employed in them (Hendy). Women who have government jobs are far less likely to drop out of the labor force than those who work in the private sector because the limited hours and general stability are considered far more amenable to family life (Hendy). However, as mentioned earlier, government hiring has been reduced drastically, and most women are unable to get a got in the public sector, causing them to either leave the labor force or accept what informal jobs in the private sector.

2.3 Young Women in the Egyptian Labor Market

Young women in the labor force in Egypt face both the challenges encountered by youth and the challenges faced by women in the country. These range from the oversaturation of the labor market due to the youth bulge, to the discrimination faced by women in the labor market, to the difficulty of balancing household responsibilities with work. These challenges have led to both very low labor force participation and employment among young women.

This section will look empirically at the situation of young women in the labor market. Specifically, we will look at data on young women between 16 and 28 years old. The data used is from the 2014 round of the SYPE. For the purpose of this paper,

the labor force is defined as anyone who either had worked during the week prior to the interview or was ready and able to work but was unable to find employment. This is a broader definition than is often used, as it includes anyone who wanted to to work rather than just individuals who actively sought work during that week.

According to data from the SYPE, the labor force participation rate in 2014 was only 15 percent among women aged 16 to 28. In that year, only eight percent of young women were employed, and an equal percentage were unemployed. This means that the unemployment rate for the group was about 50 percent, a very high rate. At the same time, the vast majority of young women were out of the labor force altogether. Over 84 percent of young women were neither employed nor unemployed.

Table 2.1: Labor Market Distribution of Young Females in 2014 (percent) (N=7,609)

Employed	Unemployed	Out of Labor Force
9.46	6.92	83.61

2.3.1 Employment Conditions

While the most visible result of the labor market challenges faced by young women in Egypt is extremely low labor force participation, there is also a relationship between these challenges and the type and duration of employment that women hold. These facets of employment also reinforce low labor force participation by driving women out of the labor force. This section will examine the situation of women who were in the labor force, leaving aside for a moment the problem of low labor force participation.

It will focus on types of employers, stability of employment, and the prevalence of employment contracts.

Looking first at the types of employers that these young women had, it is perhaps most notable that the majority of young females (65 percent) were employed by private companies. The second most common employer was the government, which employed 32 percent of young women. Only a small percentage of young women were employed by other groups. The fact that most young women were employed in the private sector has implications for the formality of the jobs they had. The majority of private sector jobs are informal. The relatively high percentage of women employed by the government is also important, given the preference that most women in Egypt have for government jobs. However this number has been in decline in recent years.

Formality and type of employer are also linked to the stability of the jobs that young women hold. In 2014 less than 70 percent of young employed women were in full time jobs. In the same year, about 20 percent were employed in temporary jobs, eight percent in casual jobs, and four percent in seasonal jobs. The fact that 30 percent of young women were not in full time jobs speaks to the precariousness of many women's position in the employment market. Being employed in temporary job mean that women frequently have to spend time looking for new work and do not have a steady and predictable stream of income. The population in these jobs are often underemployed.

This precarious labor market situation is also reflected in the low prevalence of

employment contracts among young women in Egypt. In 2014 less than 44 percent of young employed women in Egypt had employment contracts. Contracts are crucial in protecting the rights of employees, giving them recourse in case of an employer violation and ensuring some predictability of employment duration and wage. In Egypt, employment contracts are also a gateway to government social security, since an employment contract is a prerequisite for qualifying for social security (Barsoum). The fact that less than half of employed females had labor contracts is indicative of the difficult workplace situation that young women face in Egypt.

These statistics on employers, stability of employment and prevalence of contracts highlight the challenges faced by young women in the Egyptian labor force. Beyond the effect that these challenges have on individuals, they also reinforce low labor force participation by causing women to leave the labor force. These factors are crucial to understanding the evolution of female economic participation in Egypt over time, and over the past six years in particular.

Table 2.2: Employment Conditions of Young Females in 2014 (percent of employed)

Type of Employer			
Private Sector	Government	Other	
64.83	33.73	1.44	
Employment Stability			
Permanent	Temporary	Seasonal	Casual
68.50	19.88	3.98	7.65
Contracts			
Contract	No Contract		
43.77	56.33		

2.3.2 Determinants of Labor Market Participation

There are a number of factors that determine whether or not young women in Egypt are in the labor force, and whether or they are employed. This section will examine the relationship between the characteristics of young women in Egypt and their employment status. Specifically, it examines the relationship between age, education level, marital status and place of residence and whether an individual is employed, unemployed, or out of the labor force. The data used is from the 2014 SYPE.

In order to determine the impact of these factors on both labor force participation and employment I used a Heckman two equation selection model regression. This model utilizes two equations–one to examine the selection of individuals into the labor force, and another to determine the selection of individuals into employment. It is useful because it takes into account that the variables that affect employment may also cause individuals to be out of the labor force. In other words, it takes into account that the pool of people who are in the labor force (and therefore included in the employment regression) is not random. I will use a probit regression within the Heckman model, because both labor force participation and employment are binary variables.

The independent variables that were considered in the regression are age, education, marriage, and urban/rural residence. The dependent variables are whether or not an individual was in the labor force and whether or not they were employed. A full description of these variables is in table 3.3.

Table 2.3: Variables Included in the Heckman Regression

Variable	Description
Labor Force	A dummy variable that is equal to 0 if an individual was not in the labor force in 2014 and 1 if they were.
Employed	A dummy variable for employment that is equal to 0 if the respondent did not work in the past week and 1 if the respondent did work in the past week.
Age	Variable for age where the value is equal to the subject's age.
Education	An ordinal variable representing the highest level of education the subject has received. Possible values range between 1 (no education) and 5 (they have a university or higher education).
Married	A dummy variable for marriage that is equal to 0 if the respondent is not currently married, and 1 if the respondent is currently married.
Urban	A dummy variable that is equal to 0 if the respondent lives in a non-urban setting and 1 if the respondent lives in an urban setting.

Table 3.4 provides the results of this regression. Figures 3.1 and 3.2 present graphical representations of the results by focusing on the impact of individual variables. Specifically, the figures show the change that would occur in the probability that an individual was either in the labor force or employed if one of the variables is changed from its minimum value to its maximum value and the other variables are

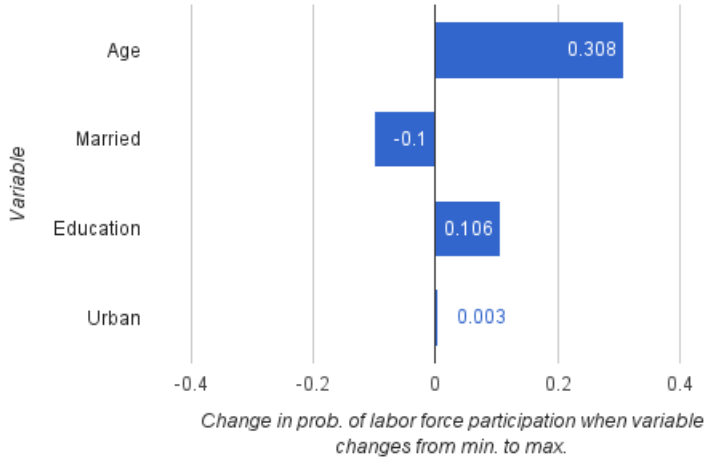

Figure 2.1: Variable Effects on Labor Force Participation for Young Women 2014

held constant at their means.

Looking first at labor force participation, age, education, and marriage all played an important role in determining labor force participation in 2014. The urban variable was the only factor considered that did not have a large affect in either year. Age had a positive affect, meaning that older individuals were more likely to be employed than younger individuals. The coefficient on education was also positive. This means that individuals with a higher level of education were more likely to be in the labor force. On the other hand, the coefficient on marriage was negative, indicating that being married decreased the chance that an individual was in the labor force.

Looking next at the regression for employment, many of the variables have similar effects to those on labor force participation. However unlike the labor force partic-

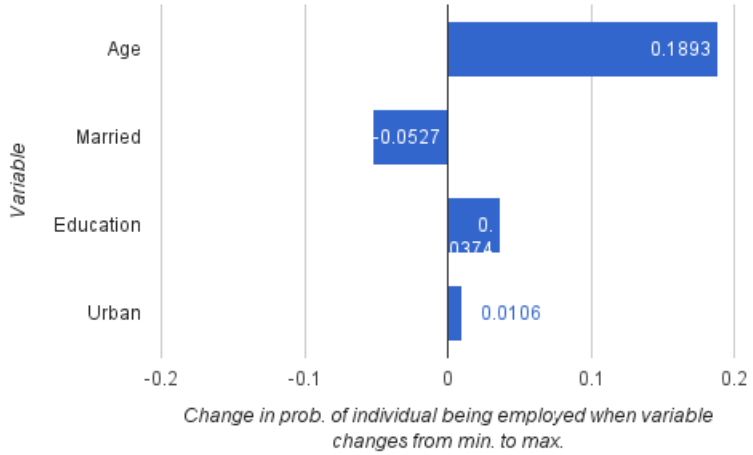

Figure 2.2: Variable Effects on Employment for Young Women 2014

ipation equation, the urban variable is significant here. This seems to suggest that while living in a city does not have a significant effect on whether a women is in the labor force, it does affect whether or not she is able to find an appropriate job.

As in the labor force equation, the coefficients on age and education were both positive. Education had a bigger impact on labor force participation than on employment. The affect of marriage is once again negative. It is interesting to note that marriage seems to have almost as big an impact on employment as labor force participation. This suggests that marriage has an impact on labor market outcomes beyond just causing women to choose not to enter the labor force. This may be because it affects the jobs that they are willing to accept, or because there is particular discrimination against married women in the hiring process.

Overall, the explanations for the signs and degree of these variables on employ-

ment are likely somewhat different than the explanations for labor force participation. The affect of variables on employment is tied both to individual preferences and to employer preferences and job availability.

Table 2.4: Regressions on Employment and Labor Force Participation for Young Females in 2014 (standard errors in parentheses)

	Labor Force	Employed
Constant	-4.536 (.214)	-3.900 (.644)
Age	.133 (.009)	.114 (.015)
Education	.168 (.023)	.036 (.082)
Married	-.558 (.067)	-.425 (.114)
Urban	.019 (.214)	.137 (.103)
N	3,903	

Chapter 3

Changes in the Labor Market from 2009-2014

The past six years have been a period of rapid change in Egypt. The country was hit by the global economic downturn, followed by the revolution and ensuing political instability and security challenges. All of these changes affected the labor market through both their impact on the economy of Egypt and on security and politics in the country. At the same time, longer term trends in employment and labor force participation were also at play, and interacted with more recent changes. This section of the paper examines how the labor market situation of young women in Egypt has changed during this period of change. We will first discuss overarching trends in young women's labor force participation and employment between 2009 and 2014, using changes in the male employment situation as a baseline for comparison. Next,

it will explore changes on a more individual level, looking at how the labor market status of individuals changed between 2009 and 2014. Lastly it will look into reasons for the extremely high labor force turnover that occurred for young females during this period.

3.1 Broad Changes from 2009-2014

The overall employment situation for youth in Egypt was relatively bleak in both 2009 and 2014. While the situation was bad for all young people, it was particularly bad for young females. This section will examine the overall picture of the labor market for young females in 2009, and the changes that occurred between that year and 2014. For the sake of comparison, it will also examine the parallel changes that occurred for young males during that period.

Table 4.1 gives an overview of the labor market distribution of young people in 2009 and 2014. Among young women, the vast majority of the population was not in the labor force in 2009 (84 percent). Shockingly few females (10 percent) were employed, and a very high percentage of the female population were unemployed (7 percent). By 2014, these numbers had mostly gotten worse. Labor force participation had decreased slightly to 15 percent. Fewer females were employed (less than 8 percent) and a greater portion of the population was unemployed (8 percent).

Among males, the employment situation looked somewhat better in both 2009 and 2014 than the situation for females. In 2009 over half the young male popula-

tion was employed (56 percent) and only a third of the group was out of the labor force. However a high percentage of the young male population was unemployed (11 percent). In 2014 this percentage went down somewhat to 9 percent. However this change was matched by a drop in overall employment to under 50 percent and an increase in the percentage of the young male population that was not in the labor force (up by almost 10 percent to 42 percent). This suggests that the unemployment rate went down because people dropped out of the labor force, rather than because they got jobs.

Table 3.1: Labor Market Distribution (percent) (N= 9,544/7,612)

		Employed	Unemployed	Out of Labor Force
2009	Females	9.46	6.92	83.61
	Males	55.77	10.89	33.34
2014	Females	7.67	7.57	84.76
	Males	48.70	9.14	42.16

3.1.1 Labor Force Participation

Table 4.2 describes the labor force participation of groups of young people in 2009 and 2014. In 2009 about 39 percent of youth between 16 and 28 years old were in the labor force. When the population is reduced to just the youth that were not studying, this number increases somewhat to 50 percent. Labor force participation was more than four times higher among young males (67 percent) than young females (16 percent). This gender disparity is maintained across both age categories.

Age-wise, labor force participation was significantly higher among older youth than among younger youth. In fact, the labor force participation rate is almost twice as high for youth 22-28 years old (51 percent) than among youth 16-21 years old (26 percent). It is important to note, however, that this difference in labor force participation rates is primarily due to the younger population being in school. If youth that are currently studying are removed from the analysis the gap closes considerably.

Between 2009 and 2014 labor force participation decreased by about three percent among the same age group to reach about 36 percent. This decrease occurred across both genders and both age categories that were examined. This represents a break from the overall change of increasing labor force participation that had occurred until 2009. The degree of decline differed across the gender and age categories.

Overall, females seemed to fare better than males, and the older population seemed to fare better than the younger population. In terms of actual declines in participation rates as well as percentage declines, the male populations experienced greater declines than the females in both age categories. Males aged 16-21 experienced the greatest decline of any group, about 10 percent. Among the females population, the younger age group also experienced a slightly larger decline than the older age group. The subgroup that experiences the smallest overall decrease was the female population between the ages of 22 and 28.

Table 3.2: Youth Labor Force Participation (percent) (N= 9,544/7,612)

Group	2009	2014	Change
Population	39.12	35.94	-3.18
Total Males	66.66	57.84	-8.82
Total Females	16.39	15.24	-1.15
Population 16-21 y.o.	26.23	21.61	-4.62
Males 16-21 y.o.	44.54	34.64	-9.90
Females 16-21 y.o.	9.25	8.51	-0.74
Population 22-28 y.o.	50.91	50.33	-0.58
Males 22-28 y.o.	89.58	82.74	-6.84
Females 22-28 y.o.	22.28	21.62	-0.66

3.1.2 Unemployment and Underemployment

Unemployment has been a chronic problem for Egypt's youth. In 2009, about seven percent of young females and 11 percent of young males were unemployed. By 2014 this number had increased for young females to about eight percent, and decreased for young males to nine percent. Beyond unemployment, many young Egyptians also suffer from underemployment–being unable to work as much as they would like to. This section will examine rates of both unemployment and underemployment, as well as changes in these measures that occurred between 2009 and 2014.

Unemployment

For the purpose of this paper, unemployment is calculated as the labor force participation rate minus the employment rate. That is, an individual is considered unemployed if he/she was ready and able to work during the week before being interviewed, but

did not work. Overall unemployment among young people between 16 and 28 was high in 2009, at 22 percent. However this number was much worse for young females specifically, about 40 percent. The situation was still bad for young males, although not quite as severe, at 16 percent.

The overall unemployment situation was somewhat worse for the younger population (16-21 year olds) at 26 percent than slightly older youth (22-28 year olds) for whom the rate was 21 percent. This difference is primarily due to differences in the male unemployment rates for the two groups. While the unemployment rate for males between 16 and 21 years old was significantly higher than for males between 22 and 28 (22 percent and 13 percent respectively) the unemployment rates for young females were not significantly different among 16-21 year olds and 22-28 year olds (42 percent and 42 percent respectively).

The overall unemployment rate for youth in Egypt did not change drastically between 2009 and 2014 (a one percent increase). However there were significant disparities in the changes that occurred across genders and age categories.

Unemployment increased for females in both age categories. The largest shift in unemployment was for females between the ages of 16 and 21, for whom the rate went up by 13 percent. This is the only age and gender group for which unemployment rates were over 50 percent in either year. Unemployment increased by significantly less for females between 22 and 28 years old, at only five percent, however the unemployment rate for that group is still close to 50 percent.

The changes in the unemployment rate for males was less uniform. The unemployment rate actually decreased by about one percent for males overall and by three percent for males between the ages of 16 and 21. This may be due to young males dropping out of the labor force altogether. In contrast, the unemployment rate for males between the ages of 22 and 28 increased slightly, by about one percent.

Table 3.3: Youth Unemployment (percent) (N= 9,544/7,612)

Group	Unemployment '09	Unemployment '14	Change in Rate
Population	22.28	23.18	0.90
Total Males	16.34	15.80	-0.54
Total Females	42.24	49.66	7.42
Population 16-21	25.90	26.67	0.77
Males 16-21	22.90	19.76	-3.14
Females 16-21	42.00	54.94	12.94
Population 22-28	20.58	21.70	1.12
Males 22-28	13.27	14.02	0.75
Females 22-28	42.37	47.70	5.33

Underemployment

In addition to unemployment, one of the major challenges faced by young people in Egypt is underemployment. That is, even many youth that are employed are not able to work the full number of hours that they would like to work each week. Individuals in this category often suffer from many of the same issues as those that are unemployed, including financial difficulties. For the purpose of this paper, an individual is defined as underemployed if they worked within the last week, but worked less than 40 hours

over the course of the week for reasons other than personal choice.

In 2009, almost a third of employed youth were underemployed. This number was significantly higher among young working females (42 percent) than among young working males (27 percent). There was relatively little variation across age groups. The underemployment rate for total employed youth between 16 and 21 years old was 29 percent, the same as the rate for youth between 22 and 28 years old. This similarity does not hold, however, when the gender dimension is examined. For females between the ages of 22 and 28 the underemployment rate was significantly higher (47 percent) than for any other category.

There were no very significant changes in underemployment for any age or gender category between 2009 and 2014. The overall underemployment rate increased by only one percent. The largest change for any gender and age category was actually a decrease in underemployment of three percent for females between 22 and 28.

Table 3.4: Youth Underemployment (percent) (N= 9,544/7,612)

Group	Underemployment '09	Underemployment '14	Change in Rate
Population	22.60	23.29	0.69
Total Males	22.45	23.66	1.21
Total Females	24.27	21.98	-2.29
Population 16-21	21.30	22.67	1.37
Males 16-21	22.60	24.59	1.99
Females 16-21	15.53	14.81	-0.72
Population 22-28	23.22	23.58	0.36
Males 22-28	21.85	23.24	1.39
Females 22-28	27.27	24.65	-2.62

3.2 Changes in the Employment Status of Individuals

In order to understand the changes that occurred in the economic participation status of young women it is important to look beyond changes in rates of labor force participation and employment. These rates hide important changes that occurred at the individual level. In this case, they obscure the fact that even though labor force participation only dropped by a little over one percent for females between 2009 and 2014, there was extremely high turnover of the individuals in the labor force. That is, very few of the individuals that were in the labor force in 2009 were still in it in 2014. This high labor force churn suggests that the problems that young females face go beyond just low entry into the labor force, and also involve labor force retention. In this sense, the situation of young females is very different from that of young males.

Because the SYPE is a panel study it is possible to examine changes in the employment status of individuals between 2009 and 2014. Table 4.5 details youth employment statuses in 2014 conditional on employment status in 2009. The table includes individuals between 16 and 28 years old in 2009. The percentages represent the percentage of individuals from the relevant category in 2009 who were in the corresponding category in 2014.

Among females, the most stable category is made up of individuals who were out of the labor force in 2009 and 2014. Of these women, 87 percent were still out of the

labor force in 2014, with only 9 percent of them employed in 2009. In contrast, of those who were unemployed in 2009, over 73 percent had dropped out of the labor force by 2014. Perhaps the most surprising category, however, is those who were employed in 2009. Only 47 percent of individuals in that category were still employed in 2014, and over 50 percent had dropped out of the labor force altogether.

Among males, the picture is significantly different. There is far less stability among those who were not in the labor force in 2009, with over 50 percent of them employed in 2014 and less than 40 percent of the group still out of the labor force in 2014. At the same time, there was far more stability in the male population that was employed in 2009, with over 85 percent of the group still employed in 2014 and less than 10 percent of the group having dropped out of the labor force. Of the young males who were unemployed in 2009, the vast majority managed to become employed by 2014 (78 percent) and only 15 percent dropped out of the labor force.

These results prompt an important question about why such a high percentage of females who had jobs in 2009 were no longer employed in 2014. It is useful to note firstly that these young women weren't driven into unemployment but out of the labor force altogether. It is also useful to note that as discussed in earlier sections, the overall employment and labor force rates did not change very drastically between 2009 and 2014. So what drove these young women out of the labor force?

Table 3.5: Conditional Employment Situation for Youth (percentage of 2009 category) (N= 3,631/ 3,041)

	Employed 2014	Unemployed 2014	Out of the LF 2014
Females			
Employed 2009	47.02	1.66	51.32
Unemployed 2009	14.57	12.15	73.28
Out of the LF 2009	8.70	4.64	86.66
Males			
Employed 2009	85.70	4.41	9.89
Unemployed 2009	77.81	6.80	15.38
Out of the LF 2009	51.12	10.05	38.83

3.3 Reasons Why Women Left the Labor Force

In thinking about why such a high percentage of women who had managed to secure jobs in 2009 left the labor force over the next five years we can look at differences between the population that stayed in the labor force and the population that left. The different paths these two groups took presumably arose either from differences between the personal characteristics of the women in the two groups or from differences in the jobs that they held in 2009. We will examine both of these categories of differences. I will argue that although there are differences in both the personal and the job characteristics of the two groups, ultimately these differences tie back to a relationship with the formality and permanence of the jobs that the women held in 2009. Specifically, the conditions of the jobs that individuals held in 2009 interacted with certain personal characteristics to drive women out of the labor force.

We will first run a probit regression to examine the level and direction of impact of

factors related to both personal characteristics and job characteristics. We will then examine both the job and personal characteristics of the two groups in more detail.

3.3.1 Regression

A probit regression was run on the effect of six variables on the probability that a woman who was employed in 2009 left the labor force between 2009 and 2014. In the personal characteristics category, age, education, and whether the individual got married between 2009 and 2014 were taken into account. On the 2009 job characteristics side, the formality of the job, the permanence of the job, and complaints about harassment were examined. A full description of these variables is in table 4.6. These variables were chosen from a longer potential list after testing their statistical significance. They were also tested for collinearity.

The results of this regression are presented in table 4.7. A graphical representation is also given in figure 4.1. This figure shows the change that would occur in the probability that an individual left the labor force if a given variable was changed from its minimum value to its maximum value, holding the other variables constant at their mean values.

Among the personal characteristics, age and education both had significant negative effects on the probability that an individual left the labor force between 2009 and 2014. Specifically, an individual who was 28 in 2009 was 44 percent less likely to have left the labor force by 2014 than an individual who was 16 in 2009. Meanwhile,

Table 3.6: Variables Included in the Labor Force Retention Regression

VARIABLE	DESCRIPTION
Labor Force 2014	A binary variable that is equal to 0 if the individual was in the labor force in 2014 and 1if the individual was not in the labor force.
Age	A variable that is equal to the age of the individual.
Education	An ordinal variable representing the highest level of education the subject has received. Ranges from 1 (no education) to 5 (have a university or higher).
Got Married	A dummy variable for whether or not an individual got married between 2009 and 2014. The variable is equal to zero if the individual did not get married and one if she did get married.
Job Formality	A dummy variable that is equal to zero if an individual worked in an informal job in 2009 and one if she worked in a formal job. A job is defined as formal if it had either a contract or social security.
Permanent Job	A dummy variable that is equal to 0 if the individual did not have a permanent job in 2009 (e.g. had a seasonal job) and 1 if they did.
Reports of harassment	A dummy variable for whether or not an individual stated that they had been harassed in the workplace when they were interviewed in 2009. The variable is equal to zero if they did not state that they had been harassed and one if they did.

Table 3.7: Regressions on Leaving the Labor Force Between 2009 and 2014 (Standard Errors in Parentheses) (N=301)

Factor	Coefficient
Constant	4.625 (1.17)
Age	-.104 (.039)
Education	-.365 (.130)
Got Married	.979 (.295)
Formal Job	-1.187 (.312)
Permanent Job	-.407 (.285)
Harassment	.300 (.335)

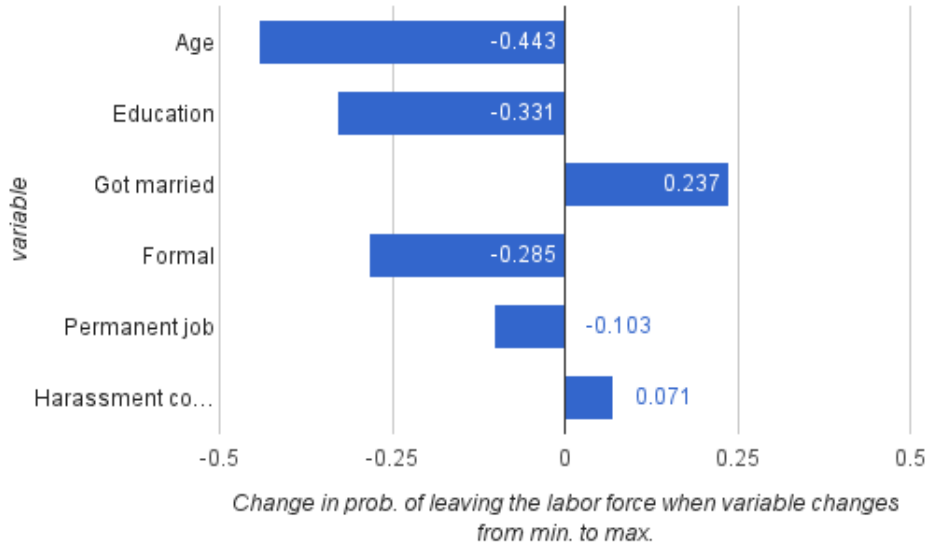

Figure 3.1: Variable Effects on Labor Force Retention 2009-2014

an individual who had a college level education or above was 33 percent less likely to drop out of the labor force than an individual who had no formal education.

The marriage variable had the opposite effect–getting married between 2009 and 2014 increased the probability that an individual dropped out of the labor force during that period. Specifically, if an individual got married between 2009 and 2014 they were 24 percent more likely to drop out of the labor force than an individual who did not get married during this period.

In terms of job characteristics, labor force retention was higher among those with formal and permanent jobs in 2009. Specifically, an individual who had a formal job in 2009 was 29 percent less likely to drop out of the labor force before 2014 than an individual with an informal job in 2009. The effect of having a permanent job was weaker, but still significant. An individual with a permanent job in 2009 was 10 percent less likely to drop out of the labor force between 2009 and 2014 than an individual with a temporary, casual, or seasonal job.

With these preliminary findings in hand, we will next take a closer look at the variables analyzed in the regression. The goal of this endeavor is to gain a better understanding of the mechanisms behind the relationships between the variables and the probability that an individual who was employed in 2009 left the labor force before 2014.

3.3.2 Job Characteristics

We will first look more closely at the 2009 job characteristics examined in the regression: the formality of the job, the permanence of the job, and the rate of reports of workplace harassment. We will examine each of these separately in order to gain a better understanding of how they relate to whether or not women left the labor force between 2009 and 2014.

Job Formality

As mentioned in the variable descriptions, in this analysis a job is considered formal if it included either a contract or social insurance. The regression showed that having a formal job in 2009 made women less likely to drop out of the labor force. Table 4.8 examines the two aspects of job formality separately, showing the rates of contracts and social insurance by whether or not an individual left the labor force.

Table 3.8: Percent of Employed Females with Contracts and Social Insurance in 2009 (N=301)

	Social Insurance	Contract
Stayed in the Labor Force	46.94	45.58
Left the Labor Force	14.29	17.53

From this table we can see that there is a significant difference both between the rates of having a work contract and the rates of having social insurance between those who left the labor force and those who stayed in the labor force. This supports the results of the regression, suggesting that there is an important and strong relationship

between job formality and labor force retention. Presumably this relationship would occur because a bad working environment would decrease the net benefit that an individual would gain from joining the labor force. That is, the benefits of not working are more appealing relative to the benefits of working when the working conditions are poor. As discussed in the background section, informal jobs are usually associated with difficult working conditions, such as long hours, low pay, and maltreatment. Some of these aspects of workplace environment will be discussed in more detail in the reports of harassment and maltreatment section.

Job Permanence

As was the case with having a formal job, the regression showed that having a permanent job also increased the likelihood that an individual would still be in the labor force in 2014. Beyond a simple permanent job vs. impermanent job classification, the permanence of a job can be further broken down. Table 4.9 divides the jobs that women had in 2009 into four categories: permanent jobs, temporary jobs, casual jobs and seasonal jobs. The percentage of women in each of these categories is examined in relation to whether they stayed in the labor force between 2009 and 2014 or left.

Table 3.9: Job Permanence of Young Females in Egypt in 2009 (Percent of Employed) (N=301)

	Permanent	Temporary	Casual	Seasonal
Stayed in the Labor Force	67.35	31.29	0.68	0.68
Left the Labor Force	40.91	44.16	7.79	7.14

Table 4.9 shows that the differentials between those who stayed in the labor force and those who left existed for all four categories of jobs. The biggest differences are between those who hold permanent jobs and those who hold temporary jobs. This table supports the findings of the regression that labor force retention was much higher among those with more permanent jobs. This makes sense intuitively, because individuals with less permanent jobs were more likely to have to find a new job between 2009 and 2014, an experience which often causes women to drop out of the labor force. It is important to note, however, that even among those with permanent jobs a large percentage of women dropped out of the labor force. It is also interesting to note that there is a positive relationship between the formality of a job and whether it is permanent or temporary. Specifically, permanent jobs are far more likely to be formal than temporary, casual, or seasonal jobs are.

Reports of Harassment and Maltreatment

In considering the reasons why so many women left the labor force between 2009 and 2014 it is important to take into account the conditions of the work that they were doing in 2009. To that end, the regression included a factor for whether or not an individual stated that they had experienced any form of harassment in the workplace. The output of the regression shows that reports of harassment were linked with a decreased probability of an individual staying in the labor force. Table 4.10 breaks these reports down by type of harassment, and also includes other forms of

negative workplace experiences.

There is a significant difference in the maltreatment from supervisors category, with women who dropped out being subject to a higher rate of maltreatment (25 percent compared to 17 percent). Those who dropped out also experienced higher rates of all of the measures of harassment, although the degree of the differential varied across categories. The types of harassment with differentials were: harassment from colleagues/ supervisors, sexual harassment from colleagues/ supervisors, harassment from customers/clients, sexual harassment from customers/ clients, and harassment during the work commute. Given the small number of interviewees for each of these questions it is wise to be cautious in drawing hard conclusions from these numbers. However they do suggest that there was likely a difference in overall harassment experiences in 2009 of those who stayed in the labor force in comparison to those who dropped out. This is particularly true given that the differentials exist for every form of harassment. This in turn suggests that workplace conditions were likely a factor in causing women to drop out of the labor force. Once again, these workplace conditions are associated with both the formality and the permanence of the jobs that women held in 2009.

3.3.3 Personal Characteristics

We will look next at the impact of the personal characteristics examined in the regression: age, education, and whether the individual got married between 2009 and 2014.

Table 3.10: Rates of Maltreatment and Harassment (percentage of category) (N=301)

Issue	Stayed in the LF	Left the LF
Maltreatment from supervisors	16.89	25.32
Long hours	39.86	53.25
Long commute time	24.32	24.67
Harassment from colleagues/ supervisors	7.43	10.39
Sexual harassment from colleagues/ supervisors	.68	3.25
Harassment from customers/ clients	6.08	9.74
Sexual harassment from customers/ clients	2.70	3.90
Workplace is hazardous	5.41	5.19
Harassment during commute	4.73	8.44
No wage payment	4.05	3.24

Specifically, we will examine differentials between the group of women who stayed in the labor force and those who dropped out along these characteristics in order to try determine the relationship between the characteristics and labor force retention.

Age

According to the regression, age has the biggest impact on the chance that an individual was still in the labor force in 2014. It is important to note that this does not suggest that labor force participation goes up with age, but rather that an individual who was already older and employed was less likely to drop out of the labor force than an individual who was younger and employed.

Given the large impact that age has on whether an individual stayed in the labor force, it is worth examining this relationship more closely. Figure 4.2 presents the age distribution of the individuals who stayed in the labor force between 2009 and 2014 in comparison to those who dropped out. This figure shows that the biggest differences in age seemed to occur at the tail ends of the distribution. Specifically, individuals who were between 26 and 28 years old in 2009 were far more likely to stay in the labor force, while individuals who were between 16 and 19 were far more likely to leave the labor force.

This difference in ages seems to suggest that there may be an age range during which many individuals leave the labor force, somewhere between ages 20 and 25. If an individual was already past this range in 2009, then they were less likely to leave the labor force between 2009 and 2014. In contrast, if they were below this age span, then they were more likely to drop out when they hit this span. This theory aligns with the shape of the age distributions for the two groups. The percentage of individuals who stayed in the labor force between 2009 and 2014 rises steadily with age. The percentage of individuals who left the labor force is low for 16-20 year olds, high for individuals between 21 and 25, and then declines again for individuals between 26 and 28 years old.

This distribution seems to suggest that age itself may not be the reason that individuals leave the labor force, but rather may be related to and provide clues about other reasons for leaving. Specifically, I hypothesize that women who were

still in the labor force past the age of about 25 in 2009 were far more likely to have permanent, formal jobs that were conducive to balancing household responsibilities. Having these jobs caused them to be more likely to stay in the labor force. Figure 4.3 supports this hypothesis. It shows that both the rates of formal employment and permanent employment increase steadily with age. This explanation matches well the evidence from the graph of age and rate of leaving/ staying in the labor force. A plausible explanation for why this might happen is that as women get older they drop out of the labor force if they do not have a permanent, formal job. This theory also relates to education levels, since the women who enter the labor force later tend to be more educated, and therefore have more formal jobs and a higher retention rate. This theory explains the overall shape of the age distribution. The relationship between age and labor force retention will be described in more detail in the next section.

Education

The regression showed that higher levels of education were significantly negatively correlated with the chance that an individual left the labor force between 2009 and 2014. We will begin by examining the education levels of the group that left the labor force in comparison to the group that stayed in. This is shown in figure 4.4. The most important thing to note from this graph is that among the three lower education brackets, more women left the labor force than stayed in, while among the two highest education brackets more women stayed in the labor force than left. This

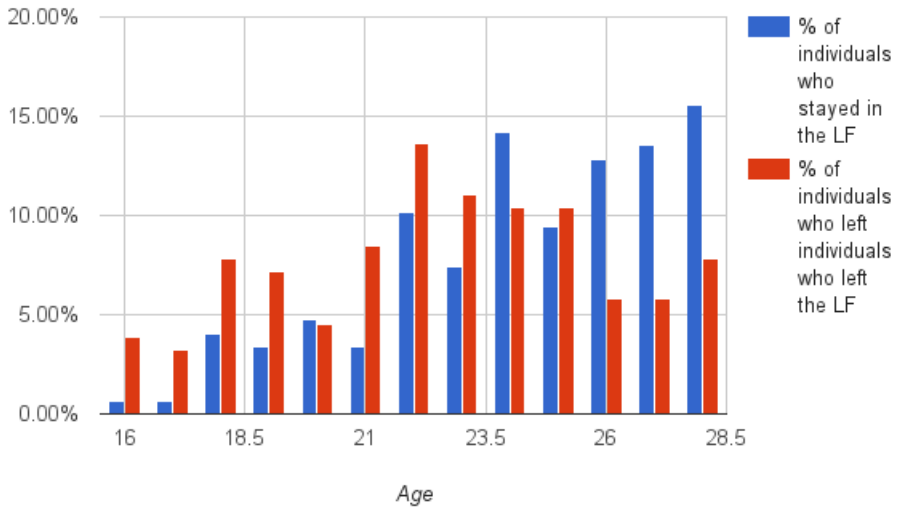

Figure 3.2: Relationship Between Age in 2009 and Labor Force Retention

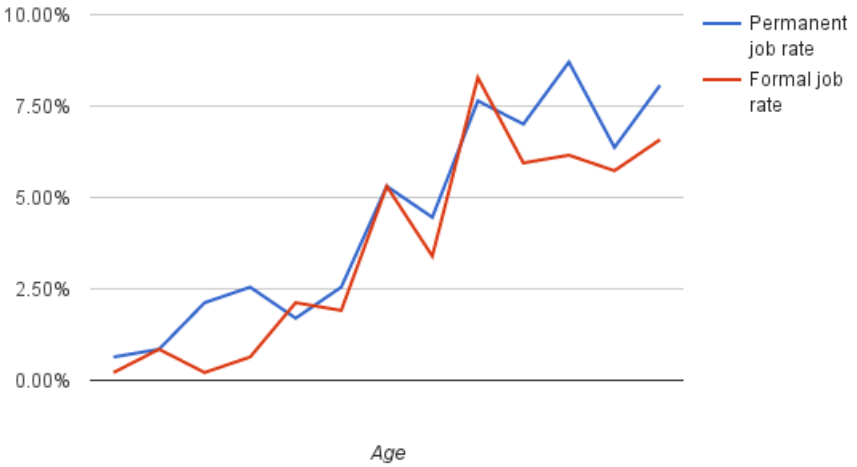

Figure 3.3: Relationship Between Age in 2009 and Job Permanence and Formality

is in line with the results of the regression.

Additionally, the biggest differential between the two groups is actually among the highest education bracket. Within this bracket, almost twice as many people stayed in the labor force as left. The second biggest differential is among the lowest education bracket, from which almost twice as many people left the labor force as stayed in. This suggests that the relationship between education and the probability that an individual was in the labor force in 2014 was particularly strong for the highest and lowest levels of education.

In thinking about why this relationship between education and labor force retention exists, it is once again useful to look at the formality of jobs that women held. Figure 4.5 shows the percentage of employed women in each education bracket that had social security and a job contract in 2009. These rates are much lower for the bottom three educational brackets (around 1-5 percent) than among the upper two educational brackets (around 20-25 percent). The switch from almost no women working in a formal job to about one quarter of women working in a formal job occurs in exactly the same point on the educational spectrum that the rate of women staying in the labor force surpasses the rate that stayed in: between the third and fourth educational brackets. In other words, for the first through third education brackets, very few women work in formal jobs, and more women left the labor force between 2009 and 2014 than stayed in, while for the fourth and fifth educational brackets, about 25 percent of women worked in the formal sector, and more women stayed in

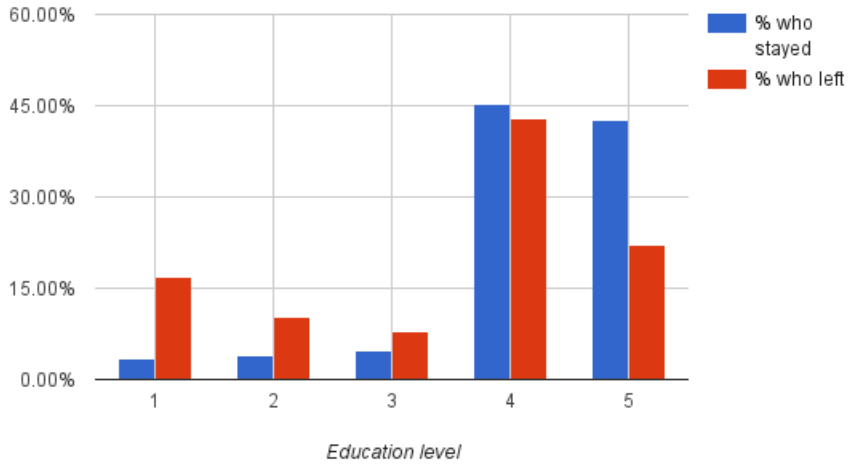

Figure 3.4: Education Level in 2009 and Labor Force Retention

the labor force than left.

This pattern suggests that, as with age, there is an interaction between the formality of jobs that women had in 2009 and their education levels, and this interaction affects the probability that an individual left the labor force between 2009 and 2014. Women in lower income brackets were less likely to be able to get formal jobs. Because they were less likely to get these jobs, they were more likely to experience bad workplace conditions such as low pay and long hours. For these reasons, the women in lower educational brackets were more likely to drop out of the labor force between 2009 and 2014.

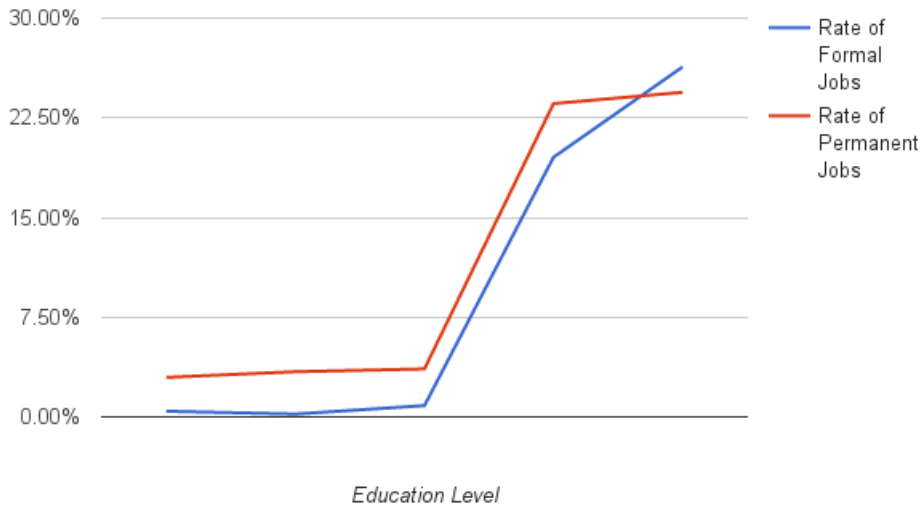

Figure 3.5: Job Permanence and Formality in Relation to Education Level in 2009

Marriage

Given the household burdens faced by Egyptian women, marriage is in many ways a very logical reason for women to leave the labor force. This logic aligns with the results of the regression, which show that women who got married between 2009 and 2014 were 24 percent more likely to leave the labor force than women who did not. This relationship is elaborated on in table 4.11.

According to this table, about 26 percent of those who stayed in the labor force got married between 2009 and 2014 as opposed to about 49 percent of individuals who left the labor force. This seems to suggest that marriage likely is a factor in many women's decisions to leave the labor force. It also suggests, however, that marriage does not fully explain why so many young women left the labor force between 2009

and 2014. Many women who did get married stayed in the labor force. Many women who did not get married dropped out of the labor force.

In terms of explaining why some women who got married stayed in the labor force, it is once again relevant to examine the relationship between this statistic and the rates of formal and informal employment. Table 4.12 shows the percentage of women who got married who were in formal and permanent jobs, based on whether they stayed in the labor force between 2009 and 2014. The rates of formal and permanent jobs were much higher among those who stayed in the labor force than among those who dropped out.

This suggests that there may be some interaction between marriage and the formality and permanence of jobs. Specifically, women were more likely to drop out of the labor force when they got married if they had been working in an informal job. This makes sense intuitively since more formal jobs are associated with shorter hours and stronger regulation, making them more compatible with the responsibilities of marriage. The role of marriage in causing women to leave the labor force before 2014 is interlinked with the conditions of their work in 2009.

Table 3.11: Labor Force Retention and Marriage Between 2009 and 2014

	Left the Labor Force	Stayed in the Labor Force
Percent who got married	49.33	26.35

Table 3.12: Labor Force Retention, Formality, and Job Permanence Among Young Females Who Got Married Between 2009 and 2014

	Percent in Formal Jobs	Percent in Permanent Jobs
Stayed in the Labor Force	71.70	56.41
Left the Labor Force	22.97	33.78

3.4 Comparison to Previous Periods

In examining the reasons for high labor force turnover among young women between 2009 and 2014 it is important to ask whether this high rate of turnover was unique to this period, or whether it is part of a longer term trend. Because the SYPE was carried out for the first time in 2009 it is difficult to answer this definitively. However we can look at an alternative source, the Egyptian Labor Market Panel Survey (ELMPS), to gain some insights.

The ELMPS was carried out in 1998, 2006, and 2011, and covered a variety of topics, including labor force participation. We will look at the 1998 and 2006 versions in order to determine the average yearly labor force turnover during the period leading up to the SYPE. As with the SYPE data, we will look only at young women between 16 and 28 years old.

Of the young women that were employed in 2008, 36 percent were out of the labor force in 2006. This means that an average of 4.5 percent of the women that were employed in 1998 dropped out per year. In contrast, according to the SYPE data, between 2009 and 2014 about 51 percent of women dropped out of the labor force, meaning there was an average rate of 10.2 percent drop out per year.

This shows that while turnover was relatively high between 1998 and 2006, it was significantly higher between 2009 and 2014. In fact, the annual rate of dropout was more than twice as high. This suggests that there was something unique about the latter period that caused women who had jobs to drop out of the labor force at a higher rate than previously.

3.5 Interpretation

The reasons why over 50 percent of young women that were employed in 2009 had left the labor force before 2014 do not all fit neatly under one category. They differ for various groups of people, and are also interlinked with each other. However the evidence examined in this section suggests that the formality of the job that women held in 2009 is an important piece of the puzzle.

The regression and examination of workplace conditions and type of work showed that formality was strongly related to whether a women left the labor force. Most directly, this is seen in the fact that a higher percentage of women who were in informal jobs left the labor force between than those in formal jobs. This effect is also visible in the rates of job permanence and harassment. Lower levels of harassment as well as higher levels of permanence are linked with the formality of work, and also with the chances that a women stayed in the labor force.

Importantly, however, the relationship between job formality and labor force retention goes beyond this direct correlation. The formality of the job that women

held in 2009 also interacts with the personal characteristics of these women to affect whether they stayed in the labor force. Specifically, the relationship between job formality, age, educational level and marriage all played into the probability that an individual stayed in the labor force.

These results shed important light on why so many women left the labor force. They suggest that many of the reasons may be tied to the demand side of the labor market, not the supply side. That is, there are problems with the jobs available to women in Egypt. They do not match the jobs that women are willing and able to accept. While outside factors such as marriage and age play a role in determining whether individuals stayed in the labor force, this role is related to job characteristics. Some of the effect of the personal characteristics such as marriage and age could be balanced out by improving employment conditions. In particular, if more women worked in formal jobs, then the likelihood that they would drop out due to a factor such as marriage would likely decrease, and overall turnover would decrease.

This high rate of labor turnover seems to be somewhat unique to this period. Data from the ELMPS suggests that women left the labor force at a higher rate during this time span than previously. This indicates that either there was an increase in the informality of jobs available to women (and therefore a worsening of average work conditions) or that women became more sensitive to bad work conditions and were more likely to leave even though work conditions and formality remained static.

It is difficult and beyond the scope of this paper to definitively determine which

of these two options is true, and the reality is it may be a combination of the two. However the SYPE provides some evidence that sheds light on the validity of the two options. Specifically, it is interesting to note that the rate of both having labor contracts and of working in a permanent job actually went up among employed females between 2009 and 2014. This suggests that rather than an increasing deformalization of the labor market, the reason for low labor force retention may be more related to the unwillingness of young women to work in informal jobs under poor conditions. This may be because of increased security concerns in the midst of the unrest in the country. It may also be due to a shift in less tangible things, such as mindset.

At any rate, it is clear that something shifted during this period, and that informality and bad working conditions are causing women to leave the labor force. This high turnover in the labor force is leading to suppressed labor force participation that affects both women on an individual level and society as a whole.

Chapter 4

Conclusions and Policy Implications

The five years from 2009 to 2014 saw what was already a difficult situation for young Egyptian females in the labor force deteriorate further. Over 80 percent of the population remained out of the labor force in both 2009 and 2014. Over the course of those five years, female employment rates went down, while unemployment rates went up. These changes were in line with the general economic downturn in the country, and largely matched similar effects on the male population.

Below the surface of these changes, there were problems beyond extremely low labor force participation. Between 2009 and 2014 over 50 percent of the women who had been employed in 2009 left the labor force. While women have also left the labor force at high rates in past periods, retention rates were worse between 2009 and

2014 than in the earlier 21st century. These women dropped out of the labor force because of a combination of bad working conditions associated with informality and the interaction between these conditions and personal characteristics. In particular, employment informality interacted with age, education level, and marriage to cause women to leave the labor force.

These finding suggest that the problem of female labor force participation requires immediate and concerted attention. They also suggest that improving the situation requires not just getting women into the labor force, but also keeping them there. If the labor force retention rate is improved, then the labor force participation rate will also go up. This necessitates improving the conditions of the workplace for young women in Egypt in order to make employment more feasible. The jobs available must be safe, have low levels of harassment, be predictable, and be compatible with the family and household responsibilities that young women bear.

Improving these conditions involves a general formalization of the labor market for young females. Without more formalization, laws can only do a limited amount to help improve the conditions of the workplace. Right now, the primary issues that appear to be affecting labor force retention are all related to the formality of jobs. If the conditions of the labor market are improved, then the effect of outside factors such as marriage and age on labor force retention may also decline.

Increased female economic participation has both individual benefits and macroeconomic benefits for society as a whole. This is particularly true in the case of

economic participation among young females, who will shape the future of Egyptian society and the country's economy. Unfortunately, Egypt ranks among the worst countries in the world on measures of female economic participation and the situation has only gotten worse over the past five years as Egypt underwent a series of changes. Addressing this issue requires formalization and policy enforcement. While challenging, these goals could mean unlocking the economic potential of a huge population of young Egyptian women.

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