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Who is covered and who underreports: Access to social insurance on the Egyptian labor market

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that exist in the metropolitan and the urban regions, relative to rural areas. It could also be due to how the urban workers value social insurance relative to their rural counterparts. Finally, the likelihood of underreporting increases with the worker's monthly basic salary. In other words, low-income workers may be paying contributions on their entire wage, while high-income workers are paying contributions on only a part of their wage.

Gender and marital status do not have any significant effect on the probability of having an underreported basic wage to the social security authority. The probability of underreporting insurable wage decreases with education level. Compared to agriculture and fishing, the probability of underreporting among private sector wage workers is higher in the transportation, storage and communication economic activity groups. As expected, the probability of underreporting is significantly higher in the private sector, regardless of firm size, relative to the public sector. Within the private sector, this probability is highest among workers of small size firms (10 or below) followed by large size firms (50 and above), and is lowest among middle size firms.

Discussion and policy recommendations

The results presented in this brief confirm several shortcomings of the Egyptian social insurance system, which have been highlighted in the literature. First, the high social insurance contribution rates, requested from both employees and employers, create a disincentive for participation. Second, the system acts as a regressive tax due to the presence of a maximum ceiling on pensionable wage. This ceiling encourages wage workers to underreport their wages in order to evade the high contributions they are paying. Also, by putting a maximum bound for the pensionable wage, the system loses a large part of the contributions that could have been collected from the high-income workers if there was no maximum ceiling on insurable earnings. Third, the fact that pension amount is based on the average monthly earnings during only the last few years in service encourages workers to underreport their pensionable wage during their first years of service and fully report their wages near the end of their service to get high pensions. In other words, the way the pension is determined combined with weak law enforcement gives room for workers and employers to get around the system in order to pay lower contributions (Helmy 2008; Sieverding and Selwaness 2012).

Prior to the January 25th, 2011 revolution, a significant reform of the social insurance system was passed through Law 135 of 2010, during the time of the old regime in Egypt. This law was scheduled to go into effect in January 2012; but due to the event of the revolution, the status of this law is still unclear.

The essence of this new law is to remove the ceiling on pensionable wage and closely connect the worker paid contributions during his/her working years to what he/she gets as retirement pensions. This is a major change, since the earlier scheme only connected retirement payment to the last five years of contributions. This new system would create such a link through the use of notional accounts, which are virtual individual accounts that record employees' contributions throughout their period of service and then disperse them with interest at the time of retirement. According to this reform, the social insurance system will change from being based on defined benefits to be based on defined contributions. The new system is supposed to increase the contribution rate paid by the employees to an average of 16.5% and decrease the employers' contribution on behalf of their employees to an average of 10%. Employees would also have the right to pay higher contributions if they want. Under this reform, the retirement age would be 65 instead of 60 years old. This increase in age is supposed to occur gradually to reach 61 in 2015, 62 in 2018, 64 in 2024 and finally reaching 65 in 2027. Also, Law 135 introduced new measures to include workers in the informal economy and in activating unemployment pensions, which had been inactive in the earlier law (SSA 2011).

Hence, the law of 2010 was supposed to remedy many of the shortcomings of the original social insurance system. Nevertheless, it is expected that the managing strategy of the notional accounts proposed under this new law will be a mark of either success or failure of the new social insurance system. Also, an overall reduction in both employers' and employees' contribution rates might be needed to encourage more participation, particularly among the working poor.

A thorough evaluation of this new law combined with proper planning of its implementation is urgently needed. Finally, these reforms should be supported by a more rigorous enforcement of social insurance law and awareness-raising campaigns of the benefits of social insurance and its system regulations, particularly among women and youth.

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Who Is Covered and Who Underreports: Access to Social Insurance on the Egyptian Labor Market

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In Egypt, as in many developing countries, the convergence of poverty and lack of social security places the working poor in a very vulnerable situation that mandates immediate action in research and programmatic interventions. Before the January 25th revolution, a focus on social security was relevant in view of the insecurities instigated by increasing market liberalization and the shrinking role of the state in services and employment. The revolution and its aftermath heightened sense of insecurity and labor protests mandated a serious re-evaluation of recent labor market policies and the social protection system in Egypt. This makes issues of social security, employment and household livelihood strategies of particular relevance now more than ever.¹

This brief identifies the worker- and enterprise- level determinants of having social insurance coverage on the Egyptian labor market among wage and non-wage workers. It also sheds light on the phenomenon of underreporting of the basic salary to the social security authority in the private wage sector in Egypt.

Social insurance system in Egypt: long established but poorly enforced?2

Egypt has a history of providing social security and social assistance projects. Following the socialist 1952 revolution, Egypt has implemented a widely stratified social insurance system (SIS) operated as a fully funded scheme where employees pay their contributions that should be invested and repaid to them in the form of old age pensions. This system has gradually shifted to be a partially funded Pay-As-You-Go (PAYG) system with defined benefits (DB) scheme. Under this DB-PAYG scheme, the contributions of current active members are used to pay the pensions of the retired members, and the benefits are determined as a defined percentage of the average monthly wage earned in the last few years before retirement (ILO 2009; SSA 2011).

Law 79 from 1975 draws the general scheme for the system, insuring all government, public sector and private sector employees. Contributions are deducted from two types of monthly wage earnings: the basic and the variable monthly wages.³ The total monthly wage used for calculating contributions had a maximum ceiling of 1275 EGP in 2006, 1,925 EGP in 2011 and is currently 2,100 EGP (SSA 2011).^{4,5} Contributions are set as a fixed percentage of the pensionable wage or the wage reported to the social insurance authority up to the determined ceiling levels. The total contribution

Key Messages:

- Acquiring social insurance coverage in the private wage work sector is rare at first entry, and gaining such access takes time.
- Experience has no effect on acquiring social insurance coverage among non-wage workers.
- Men, older, married, better educated and white collar highly skilled wage workers are more likely to have social insurance coverage.
- Linking pensions to actual paid contributions is critical in reducing evasion.
- A more rigorous enforcement of social insurance law combined with awareness-raising campaigns, particularly among women and youth, is urgently needed.

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² For a detailed overview of the Egyptian social insurance system see Sieverding and Selwaness (2012).

³ The variable wage earnings are any earnings beyond the basic wage, including incentives, bonuses, etc.

⁴ The basic monthly wage used for calculating contributions had a maximum bound of 775 EGP in 2008, and was raised to 875 EGP in 2011. The maximum bound for the variable monthly wage was 500 EGP, and was also raised to 1,050 EGP in 2011 (SSA 2011). Additionally, in July 2012, the first post-revolution Minister of Social Solidarity passed law No. 102, which stipulates an annual increase of 15% on the maximum pensionable variable wage. This law also immediately raised the ceiling on the pensionable base wage to 900 EGP and on the pensionable variable wage to 1,200 EGP.

⁵ In October 1st 2012, one US dollar was about 6.10 EGP.



amounts to 41% of basic wage and 25% of variable wage, which is paid by employees, employers and the government. Employees contribute 14% and 10% of their base and variable earnings, respectively; while employers contribute 26% and 15% of the base and variable earnings, respectively. The government contributes only 1% of the base wage in addition to covering any deficit in the system (Helmy 2004). Hence, these benefits are mainly financed by the employers' and employees' contributions.⁶

According to the law, participation of wage workers in the social security system is compulsory (79/1975) but voluntary for non-wage workers (law 108/1976). Nevertheless, not all private sector employers follow the law. The high social insurance contribution rates required from employers cause many of them to either underreport the basic salary of their employees to the social insurance authority or not cover their workers at all (Helmy 2008). On the other hand, some wage workers queuing for public sector jobs may choose not to be insured in the private sector, thinking that this might minimize their opportunities of being employed in the public sector (Barsoum et al. 2009). Also, wage workers may negotiate with their employers for higher pay in return for not having social insurance. Many others are quite ignorant about the whole system of social insurance and its benefits (see Sieverding 2012).

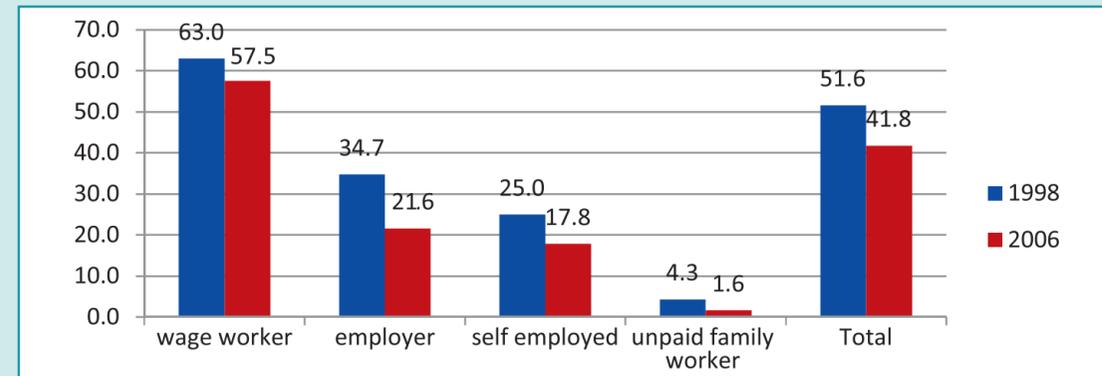
Data and methods

The results presented in this brief are based on a study on the dynamics and determinants of access to social insurance on the Egyptian labor market (see Roushdy and Selwaness 2012). Using data from two rich nationally representative labor force surveys—the 1998 Egypt Labor market Survey (ELMS 98) and the 2006 Egypt Labor Market Panel Survey (ELMPS 06)—this study addresses two questions: Who has social insurance coverage? and who has his/her basic wage underreported? The first question investigates the worker- and enterprise- level determinants of having access to social insurance. The second question analyzes the risk of underreporting insurable wage to the social security authority. Probit regression techniques are used in these analyses.

How long it takes to get access to social insurance coverage?

Descriptive results show that wage workers are more likely to have social insurance compared to all types of non-wage workers, including employer, self-employed and unpaid family workers. Access to social insurance among all workers declined from about 52% in 1998 to less than 42% in 2006 (Figure 1). The observed decline in access to social insurance in 2006 has been fairly broad, cutting across both wage and non-wage workers. Nevertheless, this decline has been more prominent among employers (13 percentage points decline) and self-employed (7 percentage points decline) relative to wage workers (5 percentage points decline).⁷

Figure 1: Percent of Workers (15-64 years old) who have Social Insurance Coverage by Employment Status in 1998, and 2006



⁶ These contribution rates are considered to be very high, in comparison to rates applied in other MENA countries. For instance, the employers' and employees' contribution rates combined in the Maghreb countries and Jordan range from only 8 to 14% (Helmy 2008).

⁷ These results do not contradict with the studies which showed that formality (defined as being employed with the benefit of either social security coverage or a legal contract) has increased due to the labor law No.12 issued in 2003 (see Wahba 2009). The 2003 law brought flexibility in hiring and firing of workers; so its effects has been more obvious in the increasing number of legal contracts, rather than an increase in access to social insurance coverage.



Focusing on wage workers, Figure 2 presents the percentage distribution of first jobs for wage workers by year of entry into the labor market and sector of employment (public, private with social insurance coverage and private with no social insurance coverage), during the period 1960-2006. The figure confirms that following the guaranteed employment scheme of the 1960s, the Egyptian public sector was the main creator of formal employment opportunities and typically the preferred sector by most new entrants to the labor market.⁸ However, in the 80s, public sector jobs started to decline in favor of the informal private sector.⁹ The share of private sector wage workers who had access to social insurance during their first jobs, although growing, remains minimal. In contrast, uninsured wage employment has been making up a substantial and growing share of total first jobs since late 1980s.

The share of private sector wage workers, who had no access to social insurance coverage during their first job, reached its peak of 52% of total first employment in 1999. This confirms the known fact about the failure of the private sector in Egypt, not only in absorbing all new entrants after the shrinking role of the government sector, but also in ensuring formality or social security coverage to all its entrants.

Figure 2: Distribution of First Job by Year of Entry and Employment Status, Working Age Population (15-64), 1960 to 2005

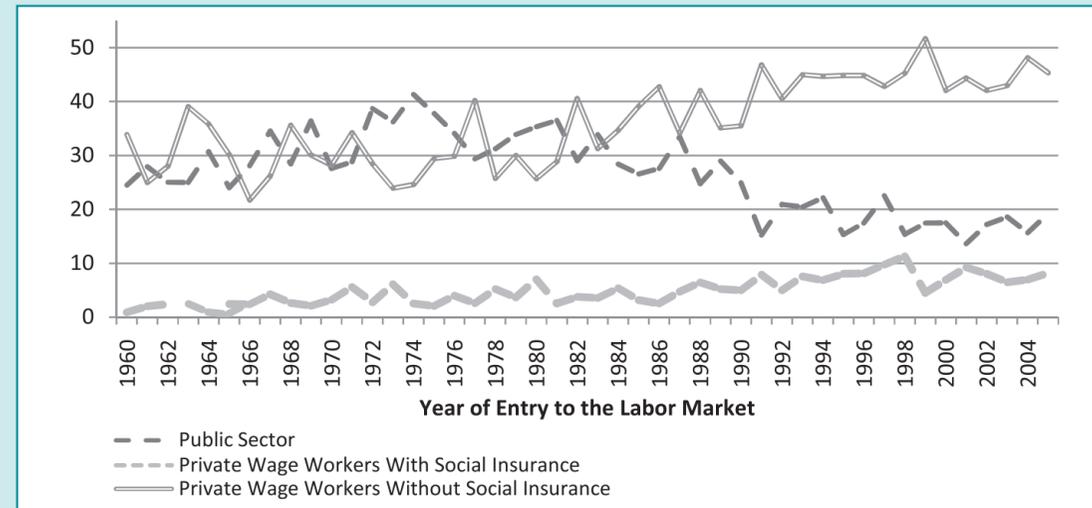


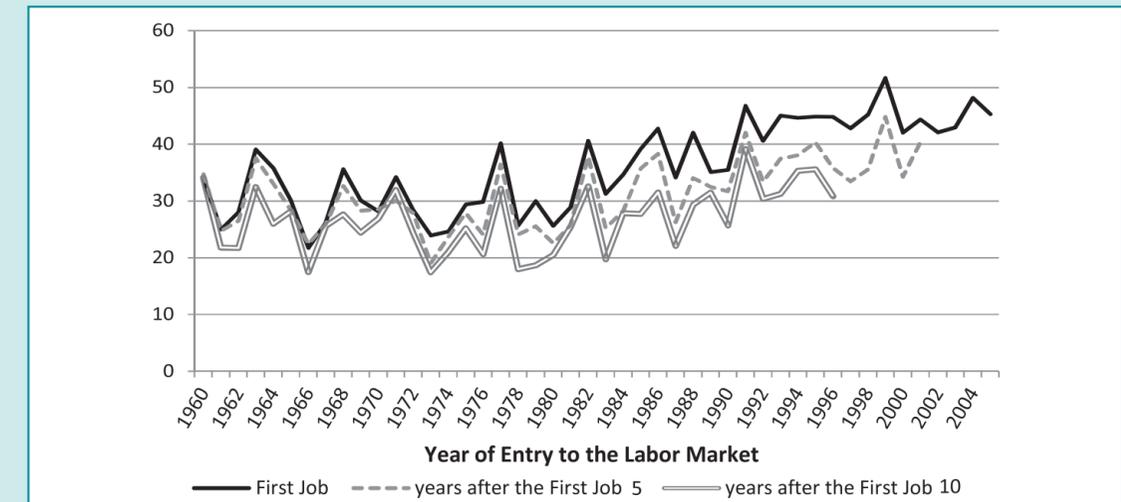
Figure 3 turns to exploring the role of job tenure in acquiring social insurance coverage. This figure compares the share of the private sector wage workers who had no access to social insurance among first entrants, among those with 5 years working experience and among those with 10 years of experience. As expected, acquiring social insurance coverage in the private sector does not often come at first entry; gaining such access takes time. The share of private sector wage workers with no social insurance is highest among labor market first entrants, followed by those having 5 years of experience, and lowest among those with at least 10 years of working experience. However, as discussed above, the percent of those with no social insurance has been increasing over time among all the three working experience categories.

⁸ This guaranteed employment scheme took place since the promulgation of law 14 in 1964, which was later amended by law 85 in 1973.

⁹ This is the period during which the Economic Reform Structural and Adjustment Program (of 1991) was implemented with the World Bank and IMF. This economic reform curbed new employment opportunities in the public sector and initiated a privatization program of existing public enterprises (Wahba and Mokhtar 2002).



Figure 3: Distribution of Uninsured Private Sector Wage Workers by Job Tenure, Working Age Population (15-64), 1960 to 2006



Who gets social insurance, and where are the jobs offering social insurance coverage found?

The multivariate analysis of the determinants of access to social insurance revealed that men and married wage workers are more likely to have access to social insurance. The probability of access to social insurance significantly increases with education level. Blue collar workers are less likely to have access to social security in comparison to white collar occupation groups. Furthermore, the presence of other socially insured members in the household positively increases the likelihood of having access to social insurance coverage. This might be due to the spread of awareness regarding the importance of having social insurance and how to attain such access among the household members.

The results among non-wage workers are slightly different than that of wage workers in terms of the impact of marital status and experience on the likelihood of having social insurance. The findings confirm the stylized fact that experience on the job market is important for acquiring social insurance coverage among wage workers, but has no effect among non-wage workers. Also, married wage workers are more likely to be covered, but marital status does not affect access to social insurance among non-wage workers.

Access to social insurance for wage workers is more likely to exist in the public sector, in large private enterprises and in the service economic activity group. Finally, working in rural Upper Egypt relative to Greater Cairo decreases the likelihood of being socially insured among wage workers, but has no effect among non-wage workers.

Who underreports basic salary?

In 2006, about 23% of wage workers had lower basic wage reported to the insurance system than they actually earned. The multivariate analysis provides evidence that underreporting significantly increases with experience and years to retirement age. In other words, workers tend to underreport their pensionable wage during their first years of service, and then fully report their wages near the end of their service. These results provide evidence to the fact that the way the pension is determined, based on the average monthly earnings during only the last few years of service, gives room for workers and employers to get around the system in order to pay lower contributions.

Furthermore, enrolling employees in the social insurance system at a lower basic salary is more prevalent in rural areas relative to the metropolitan governorates. This is probably due to the difference in law enforcement levels