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INEQUALITY OF OPPORTUNITY IN EGYPT

Nadia Belhaj Hassine

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Send correspondence to:
Nadia Belhaj Hassine
Economic Research Forum, Cairo, Egypt
Email: nbelhaj@erf.org.eg

Abstract

This paper evaluates the contribution of inequality of opportunity to inequality in earnings in Egypt and analyzes its evolution across four age cohorts and over three periods of time. On average, inequality of opportunity is found to account for 30 percent of total earnings inequality. The results reveal important variations of the inequality of opportunity indicators across age cohorts and over time. We find evidence that an important part of earnings inequality in the age cohort between 40 and 49 years old is due to unequal access to opportunities. The findings indicate that despite a small increase in total earnings inequality over time, the share of inequality of opportunities is decreasing. A sharp decline is observed in 2006.

ملخص

تقيم هذه الورقة أسهام عدم تكافؤ الفرص في عدم تكافئ الأجور في مصر، كما تحلل تطوره من خلال مجموعات من أربعة أعمار مختلفة علي مدي ثلاث فترات زمنية. و في المتوسط، تمثل الفرص غير المتكافئة 30% من إجمالي عدم تكافؤ الأجور. كما تظهر النتائج تفاوتات مهمة في مؤشرات عدم تكافؤ الفرص عبر الفئات العمرية بمرور الوقت . و ثمة ما يدل علي أن جانبا مهما من عدم تكافؤ الأجور في الفئة العمرية بين 40 عاما و 49 عاما يرجع إلي عدم المساواة في الحصول على الفرص. و تشير نتائج البحث إلي انه علي الرغم من الزيادة الطفيفة في عدم التكافؤ في إجمالي الأجور بمرور الوقت، فإن نسبة عدم تكافؤ الفرص تقل، بل لوحظ عليها هبوط حاد في عام 2006.

1. Introduction

The view is widespread that some fraction of income inequality is attributable to differences in the circumstances and opportunities faced by individuals (Roemer, 1998, Roemer *et al*., 2003, Bourguignon *et al*., 2003, 2007a). Such differences, due to predetermined characteristics such as race, gender, ethnicity, family background, and place of birth, can be distinguished from individual differences in effort, and are commonly felt to require specific attention from policy makers. The constraints to access to basic public services and vital inputs as well as social exclusion related to circumstances that are beyond the individual's control, perpetuate the lack of capabilities and opportunities for large parts of society and contribute to the persistence of inequality. This would pose challenges to social stability and inclusive growth prospects (Elbers *et al*., 2005; Bourguignon *et al*., 2007b).

Attachment to the interest in the drivers of income inequality was accompanied by a growing focus on inequality of opportunity. This is motivated by the recognition that equal access to opportunities for all population segments, implies more efficient utilization of human and physical resources, better institutions, and greater social cohesion, with dynamic benefits for investment and sustainable growth. Inequality due to differences in opportunities lead to wasted productive potential and may also negatively influence the amount of effort that an individual in unfortunate circumstances is willing to make. Inequality of outcomes such as income or wealth reflects some combination of differences in efforts and in circumstances. To the extent that inequality in initial endowments and opportunities is an important source of overall (outcome) inequality, it may matter for the design of public policies and redistribution mechanisms. The success of policy interventions in alleviating inequalities and improving welfare depends upon their efficacy in compensating for the circumstance-based disadvantages and in expanding opportunities (Peragine, 2004; Ali, 2007; Ferreira and Gignoux, 2008).

Empirical use of the concept of inequality of opportunity in the design of policies aiming at promoting development and improving equity must begin with measuring it. Recent methodological research has yielded new promising avenues for measuring inequality of opportunity indices using parametric and non parametric indices. Bourguignon *et al*. (2003, 2007a) parametrically estimate the contribution of inequality of opportunity to inequality in earnings for various cohorts in Brazil. Checchi and Peragine (2005) apply non-parametric approaches to assess inequality of opportunity in Southern and Northern Italy. Lefranc *et al*. (2008) use stochastic dominance rankings to compare the degree of inequality of opportunity among a set of OECD countries. Cogneau and Mesple-Somps (2008) estimate inequality of opportunity indices for five Sub Saharan countries and propose a decomposition of between-country differences that distinguishes the respective impacts of intergenerational mobility between social origins and positions, of the distribution of education and occupations, and of the earnings structure. Ferreira and Gignoux (2008) estimate a lower bound for the opportunity share of inequality in labor earnings, household income per capita and household consumption per capita in six Latin American countries. They use parametric and non-parametric methods. The authors associate inequality of opportunity with outcome differences that can be accounted for by morally irrelevant pre-determined circumstances, such as race, gender, place of birth, and family background.

These studies made a meaningful contribution towards empirically establishing the extent to which individuals in a given society face different opportunities. However, empirical applications of the concept of inequality of opportunity remain lacking and the knowledge about this issue is still limited in many regions. To our knowledge, most empirical studies were applied to some OECD, Latin American and Sub Saharan countries. There is no research addressing the issue of inequality of opportunity in the MENA region.

Part of the reason for this lack of research may be due to the conceptual difficulty of separating out circumstances and efforts, and another part could be due to the scarcity of data that describe predetermined circumstances.

This paper attempts to estimate the contribution of inequality of opportunity to inequality in earnings in Egypt. The source of data for this analysis is the 1988 Labor Force Sample Survey (LFSS) and the Egypt Labor Market Panel Survey (ELMPS) of 1998 and 2006. While, according to the World Bank, inequality in Egypt is moderate compared to other Arab countries, it seems to persist throughout time.[1] Unevenness in the distribution of opportunities across regional areas, professional categories or socio economic classes could contribute to this inequality and explain in part its persistence. The analysis of inequality of opportunity in Egypt can help to better understand and address the causal factors underpinning the genesis of overall inequality. This should help to inform on the priorities of redistribution policies and to design public actions intended to equalize opportunities and to foster development. Reducing opportunity inequality is doubly beneficial for development and growth: through potential social improvement and through greater equality and well being.

The study applies the methodology of Bourguignon et al. (2007a) to measure the degree of inequality of opportunity and its contribution to earnings inequality. The approach consists of dividing the determinants of earnings into exogenous components that are outside the individual's control such as gender, place of birth, or family background, (called circumstances variables) and the other variables related to the individual's effort, for which he is held responsible.

The estimation of inequalities arising from circumstances is based on simulating the reduction in earnings inequality that would be attained if circumstance were equal. The difference between the observed and the counterfactual inequality in outcomes is considered as a measure of inequality of opportunity.

The paper is organized as follows: section 2 outlines the empirical model and exposes the procedures used to infer inequality of opportunity. Section 3 provides an overview of the data used. Section 4 reports the main results. Section 5 summarizes the essential findings and conclusions.

2. The Empirical Model
The analysis of inequality of opportunity is based on the distinction between inequalities arising from circumstances of individuals and that are beyond their control, and those arising from the level of efforts they exert. Inequality of opportunity is determined by the share of outcome inequality resulting from differences in circumstances.

Our approach to estimate the part of outcome inequality that is attributed to differences in opportunities is based on the frameworks of Roemer (1998) and Bourguignon *et al*. (2007a).

Following these authors, we separate the determinants of an individual's outcome (earnings), y_i, into a set of circumstances variables, denoted by the vector C_i; efforts variables, denoted by the vector E_i and unobserved variables, represented by the white-noise terms v_i and ε_i. The earnings function can be specified as:

$$y_i = f(C_i, E_i, v_i) = f(C_i, E_i(C_i, \varepsilon_i), v_i) \qquad i:1.....N \qquad (1)$$

The circumstances variables are economically exogenous since they are outside the individual's control but may be economically endogenous due to their correlation with v_i. The

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[1] See Povcal website: http://iresearch.worldbank.org/PovcalNet/povcalNet.html.

effort variables are endogenous as circumstances may influence the level of effort that an individual is willing to expend.

Equality of opportunity occurs, in the Roemer's sense, when earnings are independently distributed from circumstances. This independence implies that both circumstances have no direct causal effect on earnings and no causal impact on efforts. A sufficient condition for this to hold is that circumstances are equalized across individuals (i.e. $C_i = \overline{C} \;\; \forall i$).

Inequality of opportunity can be estimated as the difference between the observed earnings inequality and inequality that would prevail if there were no differences in circumstances. Following Bourguignon *et al.* (2007a), we use the deviation of the observed joint distribution {y, C, E} from the case where opportunities are equal to compute to the contribution of opportunity inequality to earnings inequality.

Let $F(y)$ and $\widetilde{F}(\widetilde{y})$ be respectively the cumulative distribution of function of earnings and the counterfactual distribution when circumstances are identical for all individuals, with $\widetilde{y}_i = f\left(\overline{C}, E_i\left(\overline{C}, \varepsilon_i\right), v_i\right)$.

The opportunity share of earnings inequality is defined as:

$$\Theta_I = \frac{I(F) - I(\widetilde{F})}{I(F)} \tag{2}$$

where $I(F)$ and $I(\widetilde{F})$ are the inequality measures defined on the distributions $F(y)$ and $\widetilde{F}(\widetilde{y})$ respectively. Θ_I depends on the selected index of inequality. Θ_I captures the direct and indirect impact, through efforts, of circumstances on earnings.

The relative importance of both effects can be estimated from:

$$\Theta^d_I = \frac{I(F) - I(F^d)}{I(F)} \tag{3}$$

where Θ^d_I is the direct effect and $F^d(y^d)$ is the distribution of earnings when circumstances affect earnings only through their effect on efforts, i.e. $y^d_i = f\left(\overline{C}, E_i\left(C_i, \varepsilon_i\right), v_i\right)$. The indirect effect Θ^{ind}_I is obtained from: $\Theta^{ind}_I = \Theta_I - \Theta^d_I$.

The first step for computing the opportunity shares in equations (2) and (3) consists on estimating a specific model of (1). We follow Bourguignon et *al.* (2007a) by expressing the earnings function in the following log-linear form:

$$\ln(y_i) = C_i \alpha + E_i \beta + v_i \tag{4}$$

with:

$$E_i = A C_i + \varepsilon_i \tag{5}$$

where *α* and *β* are two vectors of coefficients, A is a matrix of coefficients specifying the effects of the circumstance variables on effort and ε_i is an error term.

The reduced from of equations (4) and (5) can be written as:

$$\ln(y_i) = C_i \delta + \eta_i \tag{6}$$

where $\delta = \alpha + \beta A$ and $\eta_i = v_i + \varepsilon_i \beta$.

Inequality of opportunity can be measured using equation (3) where the counterfactual distribution is obtained by replacing y_i with its estimated value, from equation (6), and which can be expressed as: $\tilde{y}_i = \exp(\overline{C}\hat{\delta} + \hat{\eta}_i \quad)$. Similarly the direct opportunity share Θ^d_I can be computed using the counterfactual earnings estimated from equation (4), i.e., $y^d_i = \exp(\overline{C}\hat{\alpha} + E_i\hat{\beta} + \hat{v}_i)$.

The application of ordinary least squares to equations (4) and (6) is most likely to lead to inconsistent parameter estimates because C is correlated with the error terms. This may be due to the omitted efforts and circumstance variables included in the residuals.

The two-stage least squares may produce consistent estimates, the problem remains, however, to find the appropriate instruments that satisfy exclusion restrictions.

A possible way of tackling this bias problem is bootstrap bias-correction technique. We use a standard bootstrap method to try to reduce the potential OLS biases caused by the endogeneity of C and E. The method consists of computing OLS estimates, $\hat{\alpha}$ and $\hat{\beta}$ from equation (4) as well as $\hat{\delta}$ from equation (6), and resample the residual values by generating bootstrap samples drawn randomly with replacement from the OLS residuals $\hat{v}_i$ and $\hat{\eta}_i$. For each replication, we generate a new response variable (ln(y)), run the original regression with the new response variable and compute the bootstrap estimates. We add the difference between the OLS and bootstrap estimates to the original OLS estimates to obtain the bias corrected estimator.[2]

3. Data

Our empirical application uses data from the 1988 round of the Egypt Labor Force Sample Survey (LFSS 88), the Egypt Labor Market Survey of 1998 (ELMS 98) and the Egypt Labor Market Panel Survey of 2006 (ELMPS 06).

The LFSS 88 was conducted by the Central Agency for Public Mobilization and Statistics (CAPMAS) on a nationally representative sample of 10,000. This survey is a special expanded round of the regular rounds of the LFSS.[3]

The ELMS 98 and ELMPS 06 were carried out by the Economic Research Forum (ERF) in cooperation with CAPMAS. The first survey was conducted on a sample of 5,000 households designed to be comparable to the LFSS 1988. The second survey covers a sample of 8,349 households and was intended to be a panel survey. The survey follows a sample of 3,684 households from the original ELMS 98 survey.

These surveys include information on household's characteristics, individual's detailed education histories, activity status, job search and unemployment, detailed employment characteristics, migration histories, job histories, time use, earnings, parental background, and women's status and work. The three surveys were similarly designed to ensure the comparability in the methodology and data.

We restricted the survey samples to individuals aged above 12 years old and potentially active in the labor force market.

The surveys' sample sizes are of 4,995; 4,885 and 7,612 individuals for 1988, 1998 and 2006 respectively. After discarding children less than 12 years of age, individuals still in schooling and those who do not report positive earnings, we are left with samples of respectively 4,470; 4,833 and 7,581. The missing entries, resulting from the absence of information on father's or

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[2] See Focarelli (2005) for a similar procedure.

[3] For more details about the survey see Assaad (2002)

mother's occupation, further reduced the samples to 1,098; 3,004 and 4, 533 active individuals who are representative of the Egyptian workers.[4]

Each survey sample is divided into age cohorts (<20; 20-29; 30-39; 40-49; 50+) and the analysis is conducted on each cohort separately as well as on the whole sample. The data from the three surveys are also pooled together to form a single data set and the same procedure is applied on this whole sample.

This may help to provide a clear understanding of the extent and evolution of inequality of opportunity and of the importance of its role in shaping earnings differences. The comparison of inequality of opportunity shares at a single point in time, and over time would show how this role has changed across age cohorts and over time.

The dependent variable is the current individual earnings, measured as real monthly earnings from all occupations. The individuals' circumstances are captured by a gender dummy, dummies for regions of birth, the education of parents as well as their employment status and occupational position. The parent's education is measured by the number of years of schooling. The data are reported in the surveys in discrete level and are converted as follows: illiterate (0); read & write (2); primary (6); preparatory (9); general or vocational secondary (12); post secondary (14); university 4 yrs (16); university 5 yrs (17) and post graduate (18). Five employment categories are considered, namely wage worker in a regular job, wage worker in an irregular job, employer, self employee and work for family. For the occupational position, nine categories based on the occupational classification used by CAPMAS are included.

The earnings equation incorporates also an array of control variables representing efforts, since they can be affected by the individual choices. We consider eight variables: own schooling attainment, age of first entry to labor force market, a dummy indicating whether the individual's occupies an employment that requires specific skills, a dummy for members in a trade union, a migration dummy indicating whether the region of residence is different from the place of birth, and a series of categorical variables for employment status, occupational position and employment sector. Educational attainment is measured by the years of schooling converted in the same way as previously shown. The employment sector is represented by categorical indicators indicating whether the individual works for the government, public, private, joint-venture, foreign or other enterprises.

Descriptive statistics on these variables are summarized in Table 1. Details for each survey sample are given in Table A1 in the appendix.

4. Estimation Results

The empirical application of the methodologies described in section 2 involves basically two steps. First, we estimate the earnings equations (4) and (6) by OLS. We use a standard bootstrap technique to correct the potential estimator bias. Second we simulate the counterfactual distributions $\widetilde{F}(\widetilde{y})$ and $F^d(y^d)$, using the parameter estimates, to compute the share of earnings inequality arising from unequal opportunities.

We estimate separate regressions for each age cohort and each survey year and then estimate the model for the whole sample periods to increase variability and degrees of freedom.

Tables 2 and 3 present respectively the results of estimating the earnings equation (4) and the reduced form model in equation (6) using the whole sample periods. Estimates for each survey year are reported in Tables A2 and A3 in the appendix.

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[4] The exclusion of observations with missing information on parental background is likely to induce a sample selection bias. Given the complexity of the procedure for correcting this bias, this issue will not be addressed in the present study.

We obtain fairly reasonable estimates. The estimated bias does not appear to be large enough to significantly affect the OLS estimates. The coefficients are globally of the expected sign and significant at the 10 percent level or lower. The findings seem to support the view that circumstances have a relatively important influence on outcomes. In Table 2, the coefficient for the male dummy, indicates that being male would be associated with higher income. The evidence reveals that region of birth differences may contribute to wage differences. With Alexandria and Suez Canal, as reference, people born in Urban lower Egypt would have lower incomes, while those born in Greater Cairo would enjoy a better situation. The coefficient of Greater Cairo is however significant only for the youngest cohort and for the whole sample.

The observed parental background appears to exert a significant influence on individual earnings. The results suggest a positive impact of father's years of education. The father's employment status and his occupational position have also a positive influence. Nonetheless, the coefficients of these variables are not significant for all age groups. Taking self-employees as reference, father's in irregular jobs and employers, have the greatest impact on the youngest cohort and the whole sample. Mother's education seems, on the other hand, to exert a much weaker influence than the father's education. The findings show a significant coefficient only for the individuals aged between 20 and 29 years old or for the whole sample. The influence of mother's employment status does not appear to be significant, while her occupational position has a positive impact on the second cohort and the whole sample. With elementary occupations as reference, having a mother whose occupational status is professional, or technical, has a strong positive effect.

The efforts variables are also found to affect earnings significantly. As expected own education impacts significantly positively on wages. This effect increases with age and is not significant for the youngest cohort supporting the idea that returns to schooling rises with age. The findings reveals that a late entry to the labor force market would lead to lower earnings, as captured by the negative coefficient of the age of first entry to labor market. Being in an employment that requires specific skills is found to have a strong and significant positive impact, while belonging to a trade union has a negative influence.

The labor market status and occupational status are significant for only some of the cohorts. Employers and self employee seem to earn less than wage worker in regular jobs. The occupational status coefficients show that senior officers and managers have significantly greater earnings, this effect increases somewhat from the younger to the older cohorts indicating the positive influence of experience. The employment sector appears to have an important influence on individual earnings. The coefficient estimates confirm the idea that people working in foreign enterprises enjoy higher earnings. There is also evidence that migration would help to improve one's income as captured by the positive coefficient of the migrant dummy. This effect is however significant for only the youngest cohort and the whole sample.

The estimation results of the reduced form equation (6), where only circumstance variables are included, are reported in Tables 3 and A3. These estimates capture the direct effect of circumstances on earnings, when controlling for efforts, as well as the indirect effect through efforts. The findings confirm the results in Table 2, as the coefficients have globally the same signs. However the magnitude of the estimated parameters in Table 3 does not seem to be significantly larger in absolute values than shown in the previous table. This suggests a small indirect effect of circumstances through efforts.

Having estimated the earnings equations, we next turn to computing inequality of opportunity indicators. We use the estimates in Tables 3 and A3 to simulate the counterfactual earnings distribution with constant circumstances. We use the decomposition in equation (2) to

separate the component of earnings inequality arising from differences in circumstances from the inequality component due to efforts and to random elements such as measurement errors or unobserved circumstances.

We start with measuring the total inequality in observed earnings with three indexes: Gini coefficient, Theil index and Atkinson index. The results for the different cohorts using the whole survey samples are reported in the first lines of Table 4. Table 5 includes the results for the different cohorts computed separately from each survey and age cohort.

Model 1 presents the shares in earnings inequality measured by the difference between total inequality and inequality that would be obtained if the differences in circumstances are eliminated and which represents inequality of opportunity. Total inequality and inequality of opportunity estimates depends on the inequality index used. Taking Theil index, equalizing opportunities for individuals older than 50 years of age, would reduce earnings inequality from 0.256 to 0.28 indicating that 21 percent of earnings inequality in this cohort is due to inequality in opportunities.

The findings reveal important variations of the inequality of opportunity indicators across age cohorts and over time. The share of total inequality due opportunities differences appears to be greater for people aged between 40 and 49 years old. We observe a decline in inequality of opportunity indicators over time with evidence of a sharp decline in 2006. Despite a small increase in tot earnings inequality, it seems that the observed inequality during the recent years is mostly arising from differences in efforts. Earnings inequality due to effort may, however, reflect the indirect effect of circumstances. We further investigate this issue by separating the direct impact indirect impact, through efforts, of circumstances on earnings. These effects are estimated using the decomposition in equation (3). Model 2 separates the impact of circumstances mediated by earnings determination, from their effects through educational attainment, labor status or migration. The direct component of inequality of opportunity varies between 9 and 23 percent across the cohorts and between 19 and 37 percent over time for the third cohort.

On average, we find that 70 percent of the impact of opportunities on earnings takes the form of a direct effect, while only 30 percent corresponds to the indirect effect of circumstance through efforts.

The indirect effect of circumstances on earnings through effort may, however, be underestimated due to unobserved circumstances in the error term ε in equation (5). If this effect is important

The inequality of opportunity indexes in Model 1 may however be underestimated due to the effect of unobserved circumstances that has not been taken into account. Equalizing circumstances in the reduced form equation (6) will not lead to eliminating their effect on earnings if the omitted circumstances represent an important part of the variance in ε. In that case the inequality of opportunity index is underestimated as it does not capture the impact of the differences in unobserved circumstances. One way for dealing with this issue would be to consider the extreme case where all residual variance in the effort equation is the result of circumstances (Bourguignon *et al*., 2007). The simulation of the distribution of earnings with efforts and circumstances held constant is used to estimate the upper bound of the opportunity share. It is important to note however that this procedure will not eliminate the effect of unobserved circumstances in the residual term v. The estimated opportunity share in that case does not correspond to an upper bound on the effects of all circumstances.

The results are reported in Tables 4 and 5 under Model 3. As expected we observe a relatively important increase in the inequality of opportunity measures. Using the Theil index,

opportunity share appear to average 41% against 30% in Model 1 suggesting a rather important effect of unobserved circumstances through efforts.

5. Concluding Remarks

Differences in income are claimed to be arising in part from the circumstances people face, which are out of their control. The disadvantage of circumstances may contribute to perpetuating income inequality through its direct effects on the access to education, health and job opportunities and also through influencing the amount of effort that an individual, in an undesirable situation, is disposed to make.

Income inequality reflects some combination of inequality of opportunity arising from differences in circumstances and inequality due to differences in efforts. In this paper we tempted to measure the importance of the role of inequality of opportunity in shaping earnings inequality in Egypt.

We used the methodology of Bourguignon et al. (2007a) to estimate the direct impact of opportunities on earnings as well as their indirect impact the efforts variables. We analyze the evolution of inequality across age cohorts and over time.

The results indicate that inequality of opportunity represents on average 30 percent of total earnings inequality. This average is estimated using the inequality Theil index. The inequality of opportunity share depends, however, on the specific inequality measure used. The decomposition for the Gini and Atkinson indexes shows shares of 17 percent and 32 percent respectively. The results reveal important variations of the inequality of opportunity indicators across age cohorts and over time. We find evidence that an important part of earnings inequality in the age cohort between 40 and 49 years old is due to unequal access to opportunities. It appears from the results that despite a small increase in total earnings inequality, the share of inequality of opportunities is decreasing. A sharp decline is observed in 2006.

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Table 1: Descriptive Statistics by Age Cohorts for All Surveys

	AG20_29	AG30_39	AG40_49	AG50 &more	All
Mean monthly earnings	443.97	573.72	641.39	754.08	547.1
Mean age	24.92	34.16	44.08	55.14	34.81
Mean age of first entry to labor force market	17.63	19.02	18.86	17.94	17.86
Mean years of schooling	9.69	9.86	9.01	7.24	8.8
Mean father's years of schooling	3.29	2.89	2.71	2.28	2.77
Mean mother's years of schooling	2.67	1.78	1.26	0.79	1.75
Gender (percent)					
Female	20.72	21.48	20.88	14.04	19.43
Male	79.28	78.52	79.12	85.96	80.57
Region of residence (percent)					
Urban	50.84	53.1	56	59.77	52.58
Rural	49.16	46.9	44	40.23	47.42
Labor market employment status (percent)					
Wage worker in a regular job	78.85	86.4	89.61	87.45	81.99
Wage worker in an irregular job	20.59	13.07	9.78	11.81	17.42
Employer	0.21	0.26	0.51	0.3	0.28
Self employee	0.16	0.21	0.1	0.36	0.17
Work for family	0.2	0.05		0.07	0.13
Occupation (percent)					
Senior officer and manager	0.69	2.45	8.44	15.33	4.75
Professionals	18.22	26.9	23.27	15.91	19.66
Technician, professor	7.27	12.17	13.13	8.02	9.37
Clerks	7.02	9.95	11.11	6.09	7.95
Market sale worker	17.53	13.79	13.73	18.39	15.65
Skilled agricultural worker	10.19	8.14	7.62	13.08	10.83
Craft and related trade worker	27.56	16.4	12.86	13.66	21.39
Plant and machine operator	8.5	7.94	7.93	6.09	7.57
Elementary occupations	3.01	2.26	1.90	3.44	2.82
Employment sector(percent)					
Government	28.03	49.8	60.61	56.8	42.74
Public	7.55	11.13	15.23	16.22	10.9
Private	62.05	36.32	22.26	25.23	44.27
Joint-venture	1.89	1.89	1.45	0.91	1.5
Foreign	0.18	0.14	0.18	0.13	0.14
Other	0.31	0.72	0.27	0.71	0.45
Father's employment status (percent)					
Wage worker in a regular job	64.83	63.87	60.15	58.5	62.46
Wage worker in an irregular job	17.3	21.27	25.73	27.47	21.57
Employer	14.08	13.71	13.66	13.29	13.79
Self employee	2.35	0.69	0.17	0.41	1.33
Work for family	1.44	0.46	0.3	0.34	0.85
Father's occupation (percent)					
Senior officer and manager	11.39	12.89	15.23	15.27	12.75
Professionals	5.97	5.96	5.93	4.94	5.42
Technician, professor	4.6	4.99	4.4	4.11	4.37
Clerks	3.59	5.04	4.71	4.48	4.28
Market sale worker	15.98	15.28	13.74	12.78	14.88
Skilled agricultural worker	29.96	32.51	36.37	42.71	34.37
Craft and related trade worker	17.02	13.76	11.17	9.98	14.24
Plant and machine operator	7.59	6.34	5.72	3.6	6.17
Elementary occupations	3.89	3.23	2.73	2.17	3.5

Table 1: continued

	AG20_29	AG30_39	AG40_49	AG50 &more	_All
Mother's employment status (percent)					
Wage worker in a regular job	25.26	10.23	7.44	4.08	13.92
Wage worker in an irregular job	5.04	2.07	0.93	0.31	3.19
Employer	11.39	3.68	1.44	0.91	5.65
Self employee	11.14	6.13	5.35	3.86	8.06
Work for family	47.18	77.89	84.84	90.85	69.19
Mother's occupation (percent)					
Senior officer and manager	9.42	4.86	6.52	10.81	7.34
Professionals	10.72	24.22	23.52	18.96	16.75
Technician, professor	5.47	10.4	11.94	9.1	8.09
Clerks	3.21	7.99	11.42	5.77	6.32
Market sale worker	13.43	7.52	5.66	4.99	9.41
Skilled agricultural worker	38.41	36.15	33.75	43.15	38.53
Craft and related trade worker	11.85	5.51	4.41	5.33	8.41
Plant and machine operator	4.75	2.22	2.11	1.42	3.27
Elementary occupations	2.75	1.14	0.67	0.47	1.89
Region of Birth (percent)					
Greater Cairo governorate	24.07	23.41	22.04	23.21	22.72
Alexandria and Suez canal	9.2	8.78	10.71	9.99	9.29
Urban lower Egypt	10.69	12.19	12.93	13.32	11.85
Urban upper Egypt	7.11	8.89	9.81	9.82	8.3
Rural lower Egypt	28.28	27.89	28.7	25.47	28.32
Rural upper Egypt	20.65	18.85	15.81	18.19	19.52
No of observations	4,822	4,686	3,439	2,417	16, 884

Note: real monthly earnings are in Egyptian pounds, the results are weighted by appropriate sampling weights to reflect the characteristics of the Egyptian population.

Table 2: Regression of Earnings on Observed Circumstances and Efforts by Age Group

	AG20_29	AG30_39	AG40_49	AG50 &more	_All
Urban dummy	0.059	0.214***	-0.22	-0.359	0.051
	(0.134)	(0.07)	(0.137)	(0.137)	(0.095)
Male dummy	0.444 ***	0.29***	0.137***	0.143**	0.272***
	(0.075)	(0.075)	(0.031)	(0.072)	(0.051)
Age	-	-	-	-	0.021***
					(0.002)
Years of schooling	0.001	0.021***	0.037 ***	0.03***	0.0186***
	(0.008)	(0.004)	(0.008)	(0.008)	(0.005)
Age of first entry to labor force market	-0.017**	-0.011***	-0.015**	-0.005	-0.01***
	(0.007)	(0.003)	(0.007)	(0.007)	(0.003)
Member in a trade union	-0.35***	-0.198***	-0.111***	-0.202***	-0.242***
	(0.073)	(0.072)	(0.032)	(0.072)	(0.06)
Actual job requires special skills	0.198***	0.09***	0.036	0.03	0.09**
	(0.698)	(0.033)	(0.071)	(0.068)	(0.04)
Labor market employment status					
Wage worker in a regular job (*omitted*)					
Wage worker in an irregular job	-0.045	-0.139*	-0.146	-0.105	-0.069
	(0.122)	(0.075)	(0.128)	(0.128)	(0.09)
Employer	-0.26	-0.651***	-0.528**	-0.233	-0.512***
	(0.392)	(0.216)	(0.236)	(0.382)	(0.086)
Self employee	-0.362	-0.634***	-0.61	-0.221	-0.517***
	(0.54)	(0.193)	(0.611)	(0.538)	(0.085)
Work for family	-0.203	-0.403	-	-0.737	0.066
	(0.474)	(0.513)		(0.57)	(0.086)
Occupation					
Senior officer and manager	0.27**	0.397***	0.441***	0.396**	0.273***
	(0.115)	(0.132)	(0.132)	(0.155)	(0.056)
Professionals	-0.095	0.16*	0.293**	0.276*	0.049
	(0.195)	(0.092)	(0.134)	(0.152)	(0.048)
Technician, professor	-0.099	0.012	0.188	0.151	-0.039
	(0.188)	(0.194)	(0.197)	(0.193)	(0.047)
Clerks	0.054	0.041	0.29**	0.222	0.041 (0.05)
	(0.194)	(0.189)	(0.128)	(0.189)	
Market sale worker	-0.009	0.067	0.177	0.17	-0.049
	(0.16)	(0.162)	(0.162)	(0.157)	(0.04)
Skilled agricultural worker (*omitted*)					
Craft and related trade worker	0.066	0.166**	0.208*	0.237	0.089**
	(0.149)	(0.079)	(0.115)	(0.145)	(0.038)
Plant and machine operator	0.031	0.213**	0.259**	0.243	0.095**
	(0.196)	(0.088)	(0.13)	(0.185)	(0.042)
Elementary occupations	0.079	0.078	0.15	0.23	0.036
	(0.217)	(0.222)	(0.229)	(0.22)	(0.059)
Employment sector					
Government (*omitted*)					
Public	0.146**	0.197***	0.289***	0.278***	0.246**
	(0.07)	(0.054)	(0.113)	(0.108)	(0.097)
Private	0.201***	0.358***	0.292***	-0.021	0.244***
	(0.047)	(0.091)	(0.091)	(0.92)	(0.074)
Joint-venture	0.239***	0.751***	0.599**	0.424	0.453*
	(0.092)	(0.289)	(0.293)	(0.297)	(0.249)
Foreign	1.108***	1.249***	1.232***	0.653***	1.1***
	(0.25)	(0.109)	(0.091)	(0.147)	(0.143)
Other	-0.221	-0.217	-0.589	0.349	-0.05
	(0.519)	(0.54)	(0.529)	(0.554)	(0.463)
Migrant dummy	0.178***	0.067	0.056	0.05	0.099***
	(0.056)	(0.111)	(0.04)	(0.112)	(0.025)

Table 2: continued

	AG20_29	AG30_39	AG40_49	AG50 &more	_All
Father's years of schooling	0.0172***	0.019***	0.027 ***	0.003	0.016***
	(0.006)	(0.005)	(0.005)	(0.109)	(0.003)
Father's employment status					
Wage worker in a regular job	0.142*	0.005	-0.062	-0.108	0.172***
	(0.081)	(0.228)	(0.234)	(0.232)	(0.055)
Wage worker in an irregular job	0.18**	0.048	-0.516	-0.047	0.219***
	(0.081)	(0.227)	(0.235)	(0.321)	(0.052)
Employer	0.179**	-0.027	-0.08	-0.076	0.174***
	(0.077)	(0.234)	(0.241)	(0.234)	(0.055)
Self employee (*omitted*)					
Work for family	0.303*	-0.707	-0.117	0.029	0.256
	(0.157)	(0.517)	(0.522)	(0.517)	(0.329)
Father's occupation					
Senior officer and manager	0.186**	0.127	0.278***	0.065	0.159***
	(0.091)	(0.147)	(0.07)	(0.154)	(0.04)
Professionals (*omitted*)					
Technician, professor	0.012	0.117	0.149**	0.046	0.076*
	(0.163)	(0.167)	(0.0067)	(0.171)	(0.047)
Clerks	0.098	0.153*	0.254***	0.062	0.135***
	(0.169)	(0.08)	(0.075)	(0.175)	(0.043)
Market sale worker	0.208**	0.078	0.327***	0.109	0.174***
	(0.084)	(0.157)	(0.07)	(0.167)	(0.04)
Skilled agricultural worker	0.139*	0.099	0.293***	-0.024	0.127***
	(0.083)	(0.164)	(0.068)	(0.166)	(0.042)
Craft and related trade worker	0.171*	0.136	0.294***	0.053	0.169***
	(0.088)	(0.168)	(0.071)	(0.176)	(0.043)
Plant and machine operator	0.248**	0.167	0.282***	0.048	0.184***
	(0.122)	(0.207)	(0.076)	(0.213)	(0.048)
Elementary occupations	0.177	0.212	0.318*	0.369	0.219***
	(0.231)	(0.231)	(0.168)	(0.241)	(0.067)
Mother's years of schooling	0.014**	-0.001	0.005	0.008	0.007**
	(0.006)	(0.111)	(0.114)	(0.011)	(0.003)
Mother's employment status					
Wage worker in a regular job	-0.066	-0.132	0.082	0.121	-0.092***
	(0.14)	(0.141)	(0.145)	(0.145)	(0.034)
Wage worker in an irregular job	-0.03	0.121	-0.097	-0.313	0.024
	(0.194)	(0.199)	(0.205)	(0.204)	(0.042)
Employer (omitted)					
Self employee	0.083	0.049	0.092	0.139	0.058*
	(0.143)	(0.14)	(0.145)	(0.145)	(0.035)
Work for family	0.108*	0.066	0.166	0.158	0.033
	(0.057)	(0.125)	(0.125)	(0.128)	(0.033)
Mother's occupation					
Senior officer and manager	0.047	0.308**	0.236	-0.261	0.191***
	(0.302)	(0.139)	(0.298)	(0.294)	(0.073)
Professionals	0.196	0.47***	0.182	-0.28	0.274***
	(0.289)	(0.128)	(0.286)	(0.28)	(0.074)
Technician, professor	0.174	0.431***	0.17	-0.19	0.256***
	(0.293)	(0.13)	(0.289)	(0.293)	(0.074)
Clerks	0.054	0.398***	0.16 (0.3)	-0.102	0.226***
	(0.308)	(0.133)		(0.3)	(0.077)
Market sale worker	-0.075	0.292**	0.073	-0.348	0.093
	(0.282)	(0.135)	(0.284)	(0.286)	(0.071)
Skilled agricultural worker	0.04	0.308**	0.211	-0.311	0.135**
	(0.289)	(0.126)	(0.287)	(0.285)	(0.069)

Table 2: continued

	AG20_29	AG30_39	AG40_49	AG50 &more	_All
Craft and related trade worker	0.033	0.355***	0.168	-0.331	0.142**
	(0.293)	(0.137)	(0.285)	(0.283)	(0.071)
Plant and machine operator	-0.117	0.328**	0.086	-0.301	0.047
	(0.314)	(0.163)	(0.316)	(0.327)	(0.082)
Elementary occupations (omitted)					
Region of Birth					
Greater Cairo governorate	0.113*	0.023	0.007	0.061	0.056**
	(0.06)	(0.118)	(0.12)	(0.122)	(0.029)
Alexandria and Suez canal (omitted)					
Urban lower Egypt	-0.113*	-0.174***	-0.031	-0.194**	-0.131***
	(0.058)	(0.056)	(0.123)	(0.076)	(0.029)
Urban upper Egypt	-0.086	-0.117**	-0.119**	-0.054	-0.112***
	(0.109)	(0.056)	(0.047)	(0.114)	(0.026)
Rural lower Egypt	-0.023	0.014	-0.204***	-0.143	-0.074*
	(0.16)	(0.165)	(0.074)	(0.164)	(0.044)
Rural upper Egypt	-0.05	0.05	-0.185**	-0.121	-0.088**
	(1.71)	(0.174)	(0.073)	(0.171)	(0.043)
Constant	5.724***	5.272***	5.558***	6.519***	4.761***
	(0.5)	(0.489)	(0.499)	(0.478)	(0.335)
No of observations	2049	1903	1742	1103	7582
Adjusted R-square	0.251	0.303	0.34	0.416	0.34

Notes: The dependent variable is the logarithm of real monthly earnings. The significance at the 10 per cent, 5 per cent and 1 per cent levels is indicated by *, ** and *** respectively. Values in in brackets are bootstrap standard deviations, 300 replications.

Table 3: Regression of Earnings on Observed Circumstances and Efforts by Age Group: Reduced Form model

	AG20_29	AG30_39	AG40_49	AG50 &more	_All
Urban dummy	0.08	0.214***	0.030	0.089	0.084
	(0.106)	(0.066)	(0.119)	(0.126)	(0.110)
Male dummy	0.564 ***	0.398	0.271***	0.279***	0.366***
	(0.041)	(0.038)***	(0.067)	(0.069)	(0.061)
Age					0.019***
					(0.002)
Father's years of schooling	0.016***	0.022***	0.037***	0.014**	0.023**
	(0.006)	(0.005)	(0.01)	(0.006)	(0.009)
Father's employment status					
Wage worker in a regular job	0.125	-0.027	-0.038	-0.401*	0.116**
	(0.088)	(0.108)	(0.215)	(0.223)	(0.053)
Wage worker in an irregular job	0.167*	0.031	0.034	-0.183	0.199***
	(0.090)	(0.105)	(0.215)	(0.224)	(0.055)
Employer	0.152*	-0.073	-0.033	-0.297	0.141**
	(0.086)	(0.11)	(0.225)	(0.232)	(0.109)
Self employee (*omitted*)					
Work for family	0.264	-0.100	0.065	-0.069	0.218
	(0.167)	(0.261)	(0.508)	(0.518)	(0.451)
Father's occupation					
Senior officer and manager	0.231**	0.134*	0.289***	0.067	0.182***
	(0.094)	(0.083)	(0.073)	(0.145)	(0.043)
Professionals (*omitted*)					
Technician, professor	0.026	0.108	0.119	0.161	0.129***
	(0.116)	(0.087)	(0.078)	(0.156)	(0.044)
Clerks	0.1	0.125	0.307***	0.212	0.195***
	(0.106)	(0.078)	(0.08)	(0.164)	(0.046)
Market sale worker	0.216**	0.053	0.340***	0.172	0.212***
	(0.093)	(0.085)	(0.077)	(0.152)	(0.041)
Skilled agricultural worker	0.185**	0.054	0.270***	-0.104	0.133***
	(0.094)	(0.083)	(0.076)	(0.152)	(0.042)
Craft and related trade worker	0.222**	0.111	0.297**	0.128	0.215***
	(0.093)	(0.094)	(0.079)	(0.168)	(0.047)
Plant and machine operator	0.258**	0.192	0.259***	0.201	0.230***
	(0.12)	(0.104)	(0.072)	(0.184)	(0.055)
Elementary occupations	0.196	0.267***	0.317	0.254	0.226***
	(0.128)	(0.103)	(0.215)	(0.214)	(0.066)
Mother's years of schooling	0.012**	0.002	0.011**	0.020***	0.005*
	(0.005)	(0.006)	(0.006)	(0.007)	(0.003)
Mother's employment status					
Wage worker in a regular job	-0.052	-0.070	0.084	0.316**	-0.086***
	(0.058)	(0.069)	(0.127)	(0.130)	(0.033)
Wage worker in an irregular job	-0.027	-0.103	0.069	-0.180	-0.027
	(0.059)	(0.098)	(0.162)	(0.172)	(0.148)
Employer (omitted)					
Self employee	0.090	0.011	0.186	0.336**	0.049
	(0.061)	(0.070)	(0.129)	(0.133)	(0.116)
Work for family	0.093**	0.017	0.213**	0.424***	0.021
	(0.052)	(0.056)	(0.107)	(0.114)	(0.105)
Mother's occupation					
Senior officer and manager	0.053	0.369***	0.434**	0.306	0.3***
	(0.142)	(0.125)	(0.216)	(0.262)	(0.072)
Professionals	0.237*	0.562***	0.327	0.27	0.39***
	(0.137)	(0.105)	(0.239)	(0.242)	(0.066)
Technician, professor	0.188	0.347***	0.186	0.214	0.235***
	(0.148)	(0.118)	(0.244)	(0.248)	(0.065)

Table 3: continued

	AG20_29	**AG30_39**	**AG40_49**	**AG50 &more**	**_All**
Clerks	0.061	0.327***	0.234	0.343	0.241***
	(0.156)	(0.113)	(0.25)	(0.260)	(0.067)
Market sale worker	-0.111	0.262**	-0.066	-0.252	0.015
	(0.124)	(0.122)	(0.239)	(0.242)	(0.22)
Skilled agricultural worker	0.003	0.258**	0.078	-0.193	0.068
	(0.113)	(0.117)	(0.241)	(0.244)	(0.22)
Craft and related trade worker	0.064	0.365***	0.13	-0.111	0.131**
	(0.118)	(0.116)	(0.245)	(0.251)	(0.066)
Plant and machine operator	0.026	0.478***	0.113	0.069	0.143*
	(0.145)	(0.159)	(0.268)	(0.275)	(0.076)
Elementary occupations (omitted)					
Region of Birth					
Greater Cairo governorate	0.156***	0.06	-0.003	0.023	0.056*
	(0.056)	(0.061)	(0.110)	(0.116)	(0.03)
Alexandria and Suez canal (omitted)					
Urban lower Egypt	-0.080	-0.192***	-0.056	-0.205***	-0.144***
	(0.055)	(0.060)	(0.112)	(0.072)	(0.029)
Urban upper Egypt	-0.094*	-0.167***	-0.160***	-0.12	-0.142***
	(0.056)	(0.058)	(0.049)	(0.111)	(0.026)
Rural lower Egypt	0.034	-0.053	-0.255***	-0.125	-0.09**
	(0.116)	(0.932)	(0.07)	(0.156)	(0.045)
Rural upper Egypt	-0.032	-0.037	-0.243***	-0.171**	-0.121***
	(0.118)	(0.092)	(0.071)	(0.087)	(0.044)
Constant	4.838***	5.225***	5.52***	6.118***	4.528***
	(0.222)	(0.220)	(0.393)	(0.382)	(0.359)
No of observations	2466	2074	1839		8491
Adjusted R-square	0.148	0.183	0.19		0.25

Notes: The dependent variable is the logarithm of real monthly earnings. The significance at the 10 per cent, 5 per cent and 1 per cent levels is indicated by *, ** and *** respectively. Values in in brackets are bootstrap standard deviations, 300 replications.

Table 4: Earnings Inequality and Opportunity Inequality: the Direct and Indirect Contribution of Differences in Circumstances

	AG20_29	AG30_39	AG40_49	AG50 &more	ALL
Total Inequality in earnings (a)					
Gini index	0.417	0.410	0.395	0.426	0.427
	(0.007)	(0.006)	(0.007)	(0.010)	(0.003)
Theil index	0.330	0.328	0.303	0.356	0.345
	(0.014)	(0.013)	(0.013)	(0.022)	(0.007)
Atkinson (1)	0.261	0.259	0.242	0.297	0.282
Model 1: *Overall opportunity share of inequality in earnings*					
All circumstances kept constant (b)					
Gini index	0.391	0.373	0.333	0.366	0.374
	(0.010)	(0.010)	(0.010)	(0.014)	(0.005)
Theil index	0.304	0.286	0.22	0.280	0.278
	(0.021)	(0.02)	(0.017)	(0.029)	(0.010)
Atkinson (1)	0.228	0.209	0.168	0.219	0.215
Opportunity share ((a-b)/a)					
Gini index	0.062	0.09	0.157	0.141	0.124
Theil index	0.079	0.128	0.274	0.213	0.194
Atkinson (1)	0.126	0.193	0.306	0.263	0.238
Model 2: *Direct opportunity share of inequality in earnings*					
The direct effect of circumstances only is annulled (c)					
Gini index	0.387	0.381	0.342	0.400	0.378
	(0.011)	(0.010)	(0.010)	(0.014)	(0.005)
Theil index	0.299	0.303	0.232	0.315	0.288
	(0.023)	(0.02)	(0.017)	(0.028)	(0.011)
Atkinson (1)	0.221	0.218	0.181	0.261	0.22
Direct opportunity share ((a-c)/a)					
Gini index	0.072	0.071	0.134	0.061	0.115
Theil index	0.094	0.076	0.234	0.115	0.165
Atkinson (1)	0.153	0.158	0.252	0.121	0.220
Model 3: *Holding inequality and efforts constant*					
The effect of circumstances and efforts is annulled (d)					
Gini index	0.371	0.35	0.302	0.339	0.354
	(0.01)	(0.011)	(0.01)	(0.015)	(0.005)
Theil index	0.278	0.258	0.189	0.257	0.255
	(0.023)	(0.021)	(0.017)	(0.03)	(0.011)
Atkinson (1)	0.202	0.183	0.14	0.193	0.192
Inequality share ((a-d)/a)					
Gini index	0.11	0.146	0.235	0.204	0.17
Theil index	0.158	0.213	0.376	0.278	0.26
Atkinson (1)	0.226	0.293	0.421	0.35	0.319

Notes: Values in in brackets are bootstrap standard deviations, 300 replications.

Table 5: Earnings Inequality and Opportunity Inequality: Estimates by Age Group and Survey Year

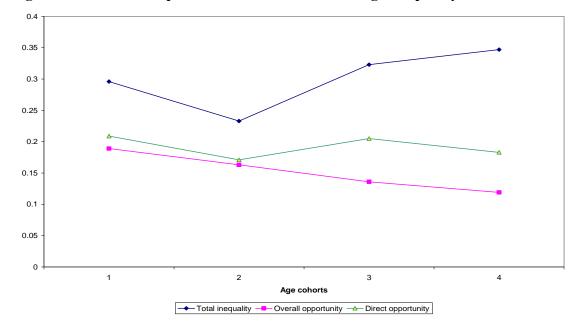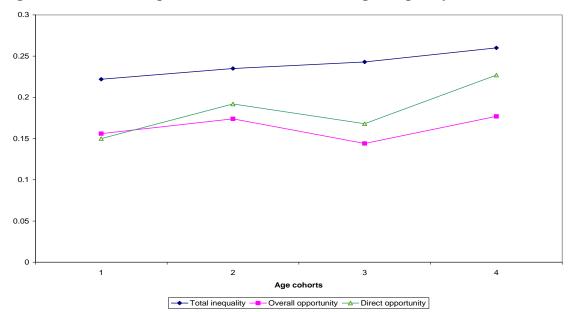|	1988					1998					2006				
	AG 20_29	AG 30_39	AG 40_49	AG50 &more	ALL	AG 20_29	AG 30_39	AG 40_49	AG50 &more	ALL	AG 20_29	AG 30_39	AG 40_49	AG50 &more	ALL
Total Inequality in earnings (a)															
Gini index	0.406	0.357	0.41	0.421	0.418	0.356	0.362	0.364	0.386	0.392	0.435	0.443	0.401	0.447	0.443
Theil index	0.296	0.233	0.323	0.347	0.321	0.222	0.235	0.243	0.260	.273	0.369	0.393	0.326	0.409	0.385
Atkinson (1)	0.269	0.219	0.274	0.278	0.287	0.203	0.206	0.204	0.248	0.238	0.272	0.29	0.246	0.325	0.295
Model 1: *Overall opport. share*															
All circumstances kept constant															
Gini index	0.351	0.292	0.268	0.266	0.351	0.304	0.308	0.288	0.31	0.318	0.415	0.400	0.35	0.389	0.394
Theil index	0.209	0.163	0.136	0.119	0.212	0.156	0.174	0.144	0.177	0.180	0.351	0.341	0.253	0.327	0.322
Atkinson (1)	0.195	0.137	0.115	0.105	0.190	0.147	0.15	0.124	0.155	0.16	0.256	0.236	0.191	0.250	0.24
Opportunity share															
Gini index	0.135	0.182	0.346	0.368	0.160	0.146	0.149	0.209	0.197	01.89	0.046	0.097	0.127	0.130	0.111
Theil index	0.361	0.300	0.576	0.657	0.340	0.297	0.260	0.407	0.319	0.341	0.049	0.132	0.224	0.200	0.164
Atkinson (1)	0.275	0.374	0.580	0.622	0.338	0.276	0.272	0.392	0.375	0.328	0.059	0.186	0.224	0.231	0.186
Model 2: *Direct opport. share*															
The direct effect of circumst.															
Gini index	0.338	0.303	0.33	0.322	0.348	0.3	0.322	0.305	0.361	0.325	0.423	0.412	0.357	0.421	0.406
Theil index	0.189	0.171	0.205	0.183	0.206	0.15	0.192	0.168	0.227	0.189	0.368	0.36	0.265	0.368	0.343
Atkinson (1)	0.179	0.147	0.155	0.137	0.186	0.146	0.164	0.140	0.221	0.168	0.261	0.245	0.199	0.285	0.249
Direct opportunity share															
Gini index	0.167	0.151	0.195	0.235	0.167	0.157	0.110	0.162	0.065	0.171	0.028	0.070	0.110	0.058	0.084
Theil index	0.294	0.266	0.365	0.473	0.358	0.324	0.183	0.309	0.127	0.308	0.003	0.084	0.187	0.100	0.109
Atkinson (1)	0.335	0.329	0.434	0.507	0.352	0.281	0.204	0.314	0.109	0.294	0.040	0.155	0.191	0.123	0.156
Model 3: *Circumstances and efforts constant*															
Circumst. and efforts constant															
Gini index	0.321	0.252	0.218	0.203	0.328	0.28	0.275	0.251	0.278	0.292	0.398	0.387	0.322	0.364	0.383
Theil index	0.167	0.114	0.092	0.067	0.181	0.132	0.137	0.109	0.15	0.151	0.332	0.327	0.226	0.311	0.314
Atkinson (1)	0.158	0.104	0.075	0.066	0.168	0.126	0.122	0.096	0.133	0.138	0.233	0.215	0.164	0.223	0.222
Inequality share															
Gini index	0.209	0.294	0.468	0.518	0.215	0.213	0.24	0.31	0.28	0.255	0.085	0.126	0.197	0.186	0.135
Theil index	0.436	0.51	0.715	0.807	0.436	0.405	0.271	0.551	0.423	0.447	0.1	0.168	0.307	0.234	0.184
Atkinson (1)	0.413	0.525	0.726	0.763	0.415	0.379	0.408	0.529	0.464	0.42	0.143	0.259	0.333	0.314	0.247

Figure A1: Effect of Equal Circumstances on Earnings Inequality in 1988

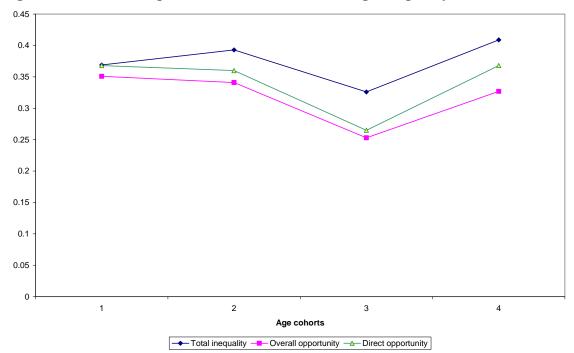**Figure A2: Effect of Equal Circumstances on Earnings Inequality in 1998**

Figure A3: Effect of Equal Circumstances on Earnings Inequality in 2006

Table A1: Descriptive Statistics by Age Cohorts and by Survey Year

	1988					1998					2006				
	AG20_29	AG30_39	AG40_49	AG50 &more	_All	AG20_29	AG30_39	AG40_49	AG50 &more	_All	AG20_29	AG30_39	AG40_49	AG50 &more	_All
Mean monthly earnings	437.22	549.76	728.34	739.77	532.95	343.28	389.77	500.78	573.19	415.28	511.64	738.62	722.61	917.53	661.27
Mean age	25.01	34.12	44.06	55.86	33.15	24.78	34.36	44.09	55.29	35.53	24.96	34.01	44.09	54.67	35.14
Mean age of first entry to labor force market	17.53	18.98	18.55	18.84	17.52	18	19.35	18.64	17.22	17.89	17.45	18.78	19.18	18.14	18.02
Mean years of schooling	8.65	8.46	7.04	4.6	7.21	9.6	9.48	8.76	7.52	8.64	10.28	10.67	10.09	8.26	9.82
Mean father's years of schooling	2.53	2.48	2.41	1.55	2.2	3.4	2.73	2.57	2.34	2.74	3.6	3.23	2.97	2.57	3.12
Mean mother's years of schooling	1.08	0.71	0.59	0.25	0.7	3.21	2.14	1.13	0.75	1.95	3.11	3.24	1.66	1.08	2.15
Gender (percent)															
Female	28.85	22.68	16.52	7.55	20.34	18.76	23.87	18.5	12.91	18.78	17.85	18.82	24.84	18.15	19.46
Male	71.15	77.32	60.58	92.45	79.66	81.24	76.13	81.5	87.09	81.22	82.15	81.18	75.16	81.85	80.54
Region of residence (percent)															
Urban	59.03	58.26	60.58	62.61	57.82	48.19	52.76	54.26	59.5	50.88	48.39	50.42	55.45	58.64	51.03
Rural	40.97	41.74	39.42	37.39	42.18	51.81	47.24	45.74	40.5	49.12	51.61	49.58	44.55	41.36	48.97
Labor market employment status (percent)															
Wage worker in a regular job	72.08	84.68	85.14	78.94	73.32	77.31	84.97	87.95	86.52	81.31	83.17	88.56	92.98	92.3	87.33
Wage worker in an irregular job	27.06	14.9	13.9	19.62	25.81	22.69	15.03	12.05	13.48	18.69	16.05	10.42	6.04	6.65	11.76
Employer	0.34	0.32	0.88	0.61	0.4						0.28	0.45	0.78	0.42	0.44
Self employee	0.24	0.11	0.07	0.83	0.21						0.22	0.45	0.19	0.46	0.3
Work for family	0.28				0.26						0.28	0.13		0.17	0.17
Occupation (percent)															
Senior officer and manager	1.16	4.65	11.58	11.79	5.05	0.73	1.57	7.68	16.22	4.79	0.43	1.92	7.71	16.16	4.57
Professionals	18.91	26.93	20.46	11.24	17.75	21.44	27.72	23.35	17.26	21	15.83	26.2	24.43	16.95	19.63
Technician, professor	6.8	8.12	5.48	4.38	5.77	4.92	10.84	9.03	4.97	7.15	9	15.56	19.82	12.4	13.14
Clerks	14.17	11.19	7.87	5.52	9.32	6.02	14.66	13.46	6.14	9.53	4.14	5.37	10.53	6.3	5.93
Market sale worker	12.27	12.75	17.62	19.35	14.42	18.52	12.77	13.98	17.13	15.16	19.49	15.22	11.82	19.02	16.73
Skilled agricultural worker	12.7	9.74	11.38	19.34	15.14	9.25	7.81	7.74	15.25	10.73	9.55	7.51	5.87	8.21	8.53
Craft and related trade worker	26.52	16	16.27	18.08	23.7	29.29	16.23	15.44	14.49	22.66	26.97	16.78	9.17	10.83	19.11
Plant and machine operator	6.25	7.73	6.64	5.68	6.25	6.89	6.64	7.3	5.92	6.48	10.65	9.14	9.03	6.45	9.17

Elementary occupations	1.21	2.9	2.34	4.45	2.61	2.94	1.76	2.02	2.62	2.51	3.94	2.31	1.62	3.68	3.19
Employment sector(percent)															
Government	31.12	46.14	47.93	41.46	35.03	28.1	51.41	57.76	54.11	42.43	25.83	50.73	69.74	67.95	48.44
Public	11.72	18.95	25.4	21.22	15.82	5.52	8.64	14.10	14.52	9.21	6.48	8.20	11.22	15.16	9.19
Private	54.99	30.8	24.84	35.72	46.86	64.27	38.26	26.52	30.06	46.81	64.93	38.21	16.82	14.61	39.87
Joint-venture	1.76	2.53	1.21	0.56	1.49	1.43	1.37	1.43	0.33	1.1	2.4	1.98	1.58	1.67	1.91
Foreign	0.18	0.17	0.21	0.54	0.2	0.22	0.2	0.15	0.03	0.15	0.15	0.04	0.2		0.1
Other	0.24	1.42	0.41	0.49	0.59	0.45	0.11	0.04	0.95	0.3	0.22	0.84	0.44	0.6	0.49
Father's employment status (percent)															
Wage worker in a regular job	63.3	58.94	54.12	58.45	60.18	70.16	66.63	62.92	57.97	65.18	61.96	64.48	60.42	58.98	61.51
Wage worker in an irregular job	26.05	27.83	31.51	27.24	27.17	13.77	19.14	23.28	26.3	19.09	14.78	19.14	25.28	28.58	20.35
Employer	10.5	12.27	14.37	14.1	12.26	10.79	13.56	13.14	14.33	12.75	18.46	14.72	13.78	12.01	15.58
Self employee		0.24		0.21	0.11	1.35	0.3	0.1	0.54	1.06	4.39	1.28	0.3	0.38	2.27
Work for family	0.15	0.72			0.28	3.93	0.36	0.55	0.85	1.92	0.41	0.38	0.22	0.05	0.28
Father's occupation (percent)															
Senior officer and manager	12.32	12.12	14.39	9.76	11.6	11.67	15.16	16.85	18.41	14.6	10.69	11.55	14.42	15.19	11.98
Professionals	5.48	7.08	8.89	5.66	5.95	5.4	5.36	6.35	5.29	5.4	6.6	5.77	4.27	4.29	5.13
Technician, professor		3.48	2.25	1.33	2.76	2.02	2.44	1.74	1.58	1.83	7.02	7.93	7.6	7.62	7.31
Clerks	3.06	6.81	5.52	5.7	5.44	4.51	7.37	7.1	5.98	6.03	2.1	2.12	2.33	2.61	2.24
Market sale worker	5.25	13.49	10.65	9.28	13.24	15.9	16.23	12.9	13.55	14.98	16.3	15.6	15.81	13.7	15.77
Skilled agricultural worker	15.51	34.12	42.21	50.73	36.53	30.13	32.1	36.24	41.81	34.3	30.46	31.86	33.89	39.67	33.16
Craft and related trade worker	28.91	16.39	11.93	12.45	16.87	19.46	12.54	12.35	9.1	14.62	13.65	13.15	9.83	9.55	12.4
Plant and machine operator	5.37	3.62	2.28	2.48	3.9	7.07	5.41	4.09	2.52	5.06	9.18	8.72	8.62	5.05	8.38
Elementary occupations	3.72	2.88	1.88	2.62	3.72	3.84	3.38	2.37	1.74	3.18	4.01	3.31	3.41	2.32	3.63
Mother's employment status (percent)															
Wage worker in a regular job	5.32	3.25	1.64	1.29	3.86	36.71	14.25	7.26	3.88	17.8	30.87	11.37	10.19	5.59	17.08
Wage worker in an irregular job	1.61	1.36	0.32		1.58	10.68	3.19	1.4	0.56	5.39	3.71	1.61	0.8	0.24	2.44
Employer	3.22	1.71	1.39	1.56	2.94	12.19	3.89	0.59		5.2	16.1	4.75	2.19	1.37	7.69
Self employee	18.21	14.5	16.94	11.47	17.6	8.85	2.44	1.19	0.38	3.87	8.05	3.85	3.7	3.23	5.45
Work for family	71.64	79.17	79.7	85.68	74.02	31.56	76.24	89.56	95.19	67.74	41.26	78.42	83.12	89.57	67.33
Mother's occupation (percent)															

Senior officer and manager	5.05	3.25	2.33		3.45	10.07	5.38	4.54	9.3	7.14	9.96	4.71	8.71	13.12	8.42
Professionals	7.7	4.1	1.73		3.77	12.79	30.39	26.51	22.89	20.62	9.94	22.68	23.93	17.96	16.5
Technician, professor	1.12	1.16	0.34		0.88	2.58	7.13	6.41	4.76	4.65	8.52	15.53	18.05	13.43	12.69
Clerks	0.99				0.58	4.16	13.18	16.15	5.15	9.2	3.04	4.76	9.03	6.87	5.22
Market sale worker	6.97	6.7	1.58	0.99	6.03	13.14	5.75	5.6	4.78	8.64	15.1	9.39	6.26	5.57	10.84
Skilled agricultural worker	70.28	81.27	87.76	91.7	77.07	32.2	27.14	33.31	46.87	33.65	35.5	34.96	26.94	35.08	33.66
Craft and related trade worker	6.82	2.98	5.81	7.31	6.69	17.07	6.87	5.26	4.61	10.55	9.3	4.76	3.52	5.68	7
Plant and machine operator		0.24			0.56	5.59	3.11	1.52	0.91	3.51	5.25	1.79	2.88	1.96	3.69
Elementary occupations	1.07	0.3	0.47		0.95	2.41	1.04	0.7	0.72	2.04	3.38	1.42	0.68	0.33	1.98
Region of Birth (percent)															
Greater Cairo governorate	34.14	32.17	31.8	35.4	32.1	22.46	19.66	19.99	20.14	19.67	20.01	21.48	19.74	20	19.94
Alexandria and Suez canal	11.42	10.88	12.28	11.8	10.97	7.67	8.67	10.2	9.74	8.55	9.05	7.67	10.46	9.34	8.94
Urban lower Egypt	8.47	10.77	9.76	8.1	9.62	10.28	13.67	13.25	16.43	12.79	12.07	11.78	14.06	13.15	12.34
Urban upper Egypt	5.14	5.93	5.97	8.24	5.6	8.38	10.61	10.89	11.06	9.72	7.31	9.17	10.58	9.51	8.67
Rural lower Egypt	23.41	21.66	23.53	15.71	22.23	31.84	29.24	29.18	26.73	30.63	28.47	30.35	30.57	29.08	29.87
Rural upper Egypt	17.43	18.59	16.67	20.75	19.49	19.38	18.17	16.49	15.91	18.63	23.09	19.55	14.85	18.92	20.24
No of observations	1269	1238	738	564	4470	1167	1401	683	763	4833	2386	2047	1611	1090	7581

Table A2: Regression of Earnings on Observed Circumstances and Efforts by Age Group

	1988					1998				
	AG20_29	AG30_39	AG40_49	AG50 &more	All	AG20_29	AG30_39	AG40_49	AG50 &more	All
Characteristics										
Urban	-0.271	0.161	0.153	0.4**	0.009	0.082	0.14	0.143	0.001	0.129
	(0.177)	(0.177)	(0.212)	(0.181)	(0.145)	(0.14)	(0.147)	(0.144)	(0.153)	(0.125)
Sex dummy	0.355***	0.347***	0.351***	0.357***	0.363***	0.471***	0.159**	0.14	0.075	0.211***
	(0.107)	(0.1)	(0.011)	(0.103)	(0.088)	(0.077)	(0.079)	(0.076)	(0.076)	(0.067)
Age					0.018***					0.021***
					((0.004)					(0.003)
Effort										
Year of schooling	-0.007	0.013	0.043***	0.08***	0.006	0.013	0.035***	0.045***	0.044***	0.028***
	(0.011)	(0.01)	(0.013)	(0.012)	(0.009)	(0.008)	(0.008)	(0.008)	(0.01)	(0.007)
Age of first entry to labor force market	-0.015	0.002	-0.005	-0.002	-0.008	-0.022***	-0.011	-0.018***	-0.008	-0.012*
	(0.009)	(0.01)	(0.011)	(0.01)	(0.008)	(0.008)	(0.008)	(0.008)	(0.007)	(0.007)
Member in a trade union	-0.284 ***	-0.074	-0.222*	-0.214**	-0.267***	-0.114	-0.135*	-0.137*	-0.143*	-0.163**
	(0.101)	(0.101)	(0.129)	(0.101)	(0.082)	(0.078)	(0.08)	(0.074)	(0.075)	(0.065)
Actual job requires special skills	0.25***	0.006	0.117	0.242***	0.043	0.14**	0.081	-0.005	0.008	0.032
	(0.092)	(0.087)	(0.11)	(0.089)	(0.071)	(0.069)	(0.071)	(0.068)	(0.069)	(0.059)
Labor market employment status										
Wage worker in a regular job (omitted)										
Wage worker in an irregular job	0.763	-0.159	-0.162	0.185	0.08	-0.077	-0.18	-0.186	-0.147	-0.127
	(0.166)	(0.164)	(0.199)	(0.174)	(0.0142)	(0.125)	(0.127)	(0.127)	(0.131)	(0.111)
Employer	-0.639	-1.184*	-1.381*	-0.692	-0.913*	0	0	0	0	0
	(0.582)	(0.634)	(0.721)	(0.63)	(0.506)	(0.413)	(0.436)	(0.412)	(0.419)	(0..352)
Self employee	-0.495	0	0	0.352	-0.527	0	0	0	0	0
	(0.768)	(0.664)	(0.883)	(0.745)	(0.589)	(0.538)	(0.546)	(0.535)	(0.52)	(0.454)
Work for family	0.281	0	0	0	0.504	0	0	0	0	0
	(0.663)	(0.67)	(0.828)	(0.741)	(0.573)	(0.476)	(0.518)	(0.492)	(0.529)	(0.419)
Occupation										
Senior officer and manager	0.273	0.086	0.398	-0.144	0.354	0.434*	0.212	0.214	0.432**	0..333*
	(0.306)	(0.292)	(0.346)	(0.319)	(0.249)	(0.233)	(0.234)	(0.238)	(0.241)	(0.197)
Professionals	-0.124	0.145	-0.119	-0.324	0.135	0.103	0.044	0.01	0.238	0.051
	(0.27)	(0.264)	(0.309)	(0.269)	(0.218)	(0.199)	(0.205)	(0.202)	(0.204)	(0.165)
Technician, professor	-0.117	-0.094	-0.098	-0.11	-0.015	0.034	-0.068	-0.002	0.213	-0.008
	(0.269)	(0.253)	(0.308)	(0.283)	(0.213)	(0.194)	(0.202)	(0.202)	(0.208)	(0.167)
Clerks	0.211	0.158	0.136	-0.24	0.237	0.251	-0.019	0.687	0.272	0.063
	(0.265)	(0.26)	(0.307)	(0.284)	(0.221)	(0.196)	(0.197)	(0.193)	(0.204)	(0.17)
Market sale worker	-0.166	-0.123	-0.072	-0.475**	-0.142	0.036	0.12	0.188	0.089	0.02
	(0.215)	(0.225)	(0.252)	(0.219)	(0.179)	(0.164)	(0.165)	(0.17)	(0.168)	(0.139)
Skilled agricultural worker (omitted)										
Craft and related trade worker	0.188	0.023	-0.002	-0.007	0.108	0.132	0.27*	0.229	0.266*	0.156

(0.207)	(0.207)	(0.23)	(0.21)	(0.165)	(0.156)	(0.158)	(0.161)	(0.159)	(0.133)

Plant and machine operator	0.171	0.219	0.17	-0.323	0.18	0.231	0.449**	0.341*	0.239	0.289
	(0.268)	(0.265)	(0.297)	(0.273)	(0.214)	(0.206)	(0.204)	(0.203)	(0.201)	(0.177)
Elementary occupations	0.225	-0.331	0.098	-0.087	-0.174	0.026	0.164	0.238	0.21	0.062
	(0.31)	(0.308)	(0.386)	(0.32)	(0.247)	(0.233)	(0.233)	(0.243)	(0.245)	(0.204)
Employment sector										
Government (omitted)										
Public	0.043	0.205	0.25	-0.182	0.2	0.108	0.32***	0.26**	0.384***	0.295***
	(0.161)	(0.144)	(0.183)	(0.156)	(0.125)	(0.115)	(0.12)	(0.118)	(0.111)	(0.101)
Private	0.106	0.494***	0.195	-0.267**	0.13	0.344***	0.417***	0.325***	0.136	0.327***
	(0.124)	(0.125)	(0.145)	(0.126)	(0.106)	(0.093)	(0.094)	(0.094)	(0.095)	(0.086)
Joint-venture	-1.041***	0.791**	0	0	0.221	0.376	0.614**	0.78***	-0.325	0.511*
	(0.379)	(0.366)	(0.458)	(0.432)	(0.31)	(0.297)	(0.306)	(0.302)	(0.306)	(0.264)
Foreign	0	0	0	0	0	0.792	0	1.116	0.479	0.923
	(0.609)	(0.608)	(0.721)	(0.621)	(0.496)	(0.598)	(0.494)	(0.701)	(0.521)	(0.613)
Other	0	-0.193	0	0	-0.451	-0.063	0.44	0	0.381	0.148
	(0.688)	(0.715)	(0.821)	(0.685)	(0.589)	(0.545)	(0.573)	(0.542)	(0.582)	(0.491)
Migrant dummy	-0.343**	0.197	0.026	0.368**	0.114	0.124	-0.02	0.19*	0.118	0.123
	(0.141)	(0.142)	(0.164)	(0.149)	(0.123)	(0.117)	(0.119)	(0.113)	(0.117)	(0.104)
Circumstances										
Father's years of schooling	0.039***	0.007	-0.029*	0.02	0	0.013	0.122	0.027**	-0.016	0.014
	(0.14)	(0.013)	(0.171)	(0.015)	(0.012)	(0.008)	(0.011)	(0.011)	(0.012)	(0.01)
Father's employment status										
Wage worker in a regular job	-0.167	-0.036	-0.021	0.014	0.164	0.158	0.481**	-0.345	-0.095	0.124
	(0.326)	(0.316)	(0..36)	(0.314)	(0.258)	(0.234)	(0.236)	(0.25)	(0.263)	(0.206)
Wage worker in an irregular job	-0.12	0.159	0.019	0..312	0.321	0.129	0.486**	-0.376	-0.098	0.13
	(0.32)	(0.318)	(0.36)	(0.32)	(0.253)	(0.232)	(0.235)	(0.249)	(0.262)	(0.202)
Employer	0	0.036	0	0	0.254	0.125	0.429*	-0.307	-0.16	0.095
	(0.342)	(0.331)	(0.369)	(0.322)	(0.263)	(0.242)	(0.245)	(0.257)	(0.268)	(0.21)
Self employee (omitted)										
Work for family	0	0.44	0	0	0.611	0.33	1.131*	-0.384	-0.091	0.279
	(0.713)	(0.771)	(0.909)	(0.719)	(0.619)	(0.546)	(0.634)	(0.557)	(0.58)	(0.451)
Father's occupation										
Senior officer and manager	0.842***	0.145	-0.185	-0.856***	0.223	0.184	-0.009	0.361**	0.025	0.16
	(0.199)	(0.191)	(0.232)	(0.209)	(0.161)	(0.151)	(0.16)	(0.158)	(0.171)	(0.138)
Professionals (omitted)										
Technician, professor	0.115	0	-0.127	0	0.139	0.013	0.073	0.154	0.174	0.105
	(0.24)	(0.227)	(0.252)	(0.244)	(0.185)	(0.171)	(0.184)	(0.181)	(0.189)	(0.151)
Clerks	1.044***	0.397*	-0.243	-1.251***	0.43**	0.121	0.087	0.278	-0.065	0.121
	(0.244)	(0.234)	(0.306)	(0.247)	(0.19)	(0.183)	(0.188)	(0.186)	((0.189)	(0.166)
Market sale worker	0.897***	0.023	0.007	-0.657***	0.349**	0.096	0.003	0.32*	-0.053	0.145
	(0.216)	(0.205)	(0.241)	(0.221)	(0.175)	(0.161)	(0.169)	(0.17)	(0.176)	(0.15)
Skilled agricultural worker	0.607***	0.029	-0.148	-1.132***	0.232	0.159	0.006	0.307*	-0.148	0.101
	(0.221)	(0.223)	(0.26)	(0.231)	(0.184)	(0.172)	(0.18)	(0.176)	(0.181)	(0.151)

Craft and related trade worker	0.749***	-0.045	-0.153	-0.747***	0.297	-0.004	0.021	0.274	-0.026	0.115
	(0.228)	(0.221)	(0.277)	(0.241)	(0.186)	(0.17)	(0.183)	(0.179)	(0.19)	(0.158)
Plant and machine operator	0.945***	0.159	-0.714**	0	0.322	0.02	0.033	0.271	0.071	0.112
	(0.266)	(0.269)	(0.34)	(0.273)	(0.217)	(0.211)	(0.226)	(0.219)	(0.224)	(0.19)
Elementary occupations	0.54	0.234	-0.784**	0	0.145	-0.049	0.157	0.247	0.207	0.191
	(0.33)	(0.308)	(0.39)	(0.329)	(0.262)	(0.237)	(0.247)	(0.233)	(0.255)	(0.201)
Mother's years of schooling	0.135	0.073***	0.009	-0.078	0.04***	0.0163	0.004	0.012	0.009	0.006
	(0.0153)	(0.015)	(0.0183)	(0.017)	(0.012)	(0.012)	(0.012)	(0.12)	(0.012)	(0.011)
Mother's employment status										
Wage worker in a regular job	0.158	-0.239	0.009	-0.27	-0.058	-0.112	-0.012	0.331**	0.443***	-0.124
	(0.193)	(0.187)	(0.225)	(0.214)	(0.156)	(0.148)	(0.153)	(0.15)	(0.155)	(0.131)
Wage worker in an irregular job	-0.058	0.515	0.094	0	0.176	-0.042	0.125	0.147	0	-0.028
	(0.273)	(0.249)	(0.314)	(0.286)	(0.223)	(0.202)	(0.208)	(0.209)	(0.215)	(0.181)
Employer (omitted)										
Self employee	0.089	-0.035	-0.031	0.046	0.059	0.031	-0.132	0.522***	0.823***	-0.023
	(0.183)	(0.168)	(0.216)	(0.194)	(0.147)	(0.138)	(0.141)	(0.137)	(0.145)	(0.123)
Work for family	-0.344**	-0.245	0	0	-0.499***	0.223	0.067	0.427***	0.413***	0
	(0.17)	(0.161)	(0.203)	(0.18)	(0.143)	(0.131)	(0.132)	(0.129)	(0.135)	(0.119)
Mother's occupation										
Senior officer and manager	0.575	-0.009	0.076	0	0.148	-0.308	0.321	0.338	0.242	0.122
	(0.407)	(0.4)	(0.478)	(408)	(0.33)	(0.307)	(0.307)	(0.307)	(0.312)	(0.27)
Professionals	0.776*	-0.152	0.523	0	0.264	-0.211	0.288	0.266	0.16	0.169
	(0.399)	(0.391)	(0.466)	(0.4)	(0.319)	(0.292)	(0.295)	(0.295)	(0.304)	(0.251)
Technician, professor	0.087	-0.129	-2.366***	0	-0.066	-0.217	0.327	0.176	0.118	0.129
	(0.410)	(0.388)	(0.464)	(0.418)	(0.324)	(0.291)	(0.297)	(0.3)	(0.316)	(0.252)
Clerks	-0.071	0	0	0	-0.222	-0.319	0.277	0.228	0.401	0.139
	(0.429)	(0.416)	(0.495)	(0.416)	(0.341)	(0.308)	(0.307)	(0.315)	(0.321)	(0.267)
Market sale worker	0.218	0.221	0.228	0	0.249	-.29	0.268	-0.194	0.094	0
	(0.393)	(0.385)	(0.457)	(0.384)	(0.315)	(0.29)	(0.293)	(0.3)	(0.31)	(0.253)
Skilled agricultural worker	0.445	0.055	-0.014	0.91**	0.143	-0.419	0.169	0.136	0.082	0.016
	(0.398)	(0.39)	(0.452)	(0.388)	(0.324)	(0.294)	(0.292)	(0.301)	(0.31)	(0.253)
Craft and related trade worker	0.396	0.203	-0.103	0.937**	0.168	-0.176	0.166	0.091	0.087	0.082
	(0.4)	(0.396)	(0.463)	(0.385)	(0.32)	(0.301)	(0.305)	(0.302)	(0.312)	(0.259)
Plant and machine operator	0	1.205***	0	0	-0.152	-0.266	0.152	0.128	0.307	0.015
	(0.436)	(0.43)	(0.497)	(0.466)	(0.349)	(0.324)	(0.327)	(0.331)	(0.352)	(0.284)
Elementary occupations (omitted)										
Region of Birth										
Greater Cairo governorate	0.258	-0.015	0.27	-0.504***	-0.058	0.122	0.035	0.101	-0.092	0.045
	(0.166)	(0.154)	(0.192)	(0.163)	(0.131)	(0.125)	(0.124)	(0.124)	(0.133)	(0.103)
Alexandria and Suez canal (omitted)										
Urban lower Egypt	0.575***	0.061	0.412**	-0.252	-0.043	-0.1	-0.076	-0.031	-0.275**	-0.103
	(0.167)	(0.152)	(0.2)	(0.16)	(0.134)	(0.12)	(0.124)	(0.123)	(0.132)	(0.105)
Urban upper Egypt	0.177	0.022	0.442**	-0.528***	0.003	-0.007	-0.012	-0.058	-0.129	-0.093
	(0.161)	(0.156)	(0.194)	(0.152)	(0.127)	(0.114)	(0.121)	(0.118)	(0.123)	(0.099)

Rural lower Egypt	-0.083	-0.001	0.481*	0.037	-0.077	0.086	0.067	0.02	-0.168	0.024
	(0.214)	(0.208)	(0.26)	(0.22)	(0.171)	(0.167)	(0.171)	(0.17)	(0.179)	(0.148)
Rural upper Egypt	-0.032	0.127	0.324	-0.179	-0.044	-0.075	0.067	0.007	-0.007	-0.053
	(0.226)	(0.221)	(0.261)	(0.228)	(0.182)	(0.176)	(0.18)	(0.175)	(0.185)	(0.152)
Constant	5.041***	5.228***	5.749***	6.113***	4.679***	5.214***	4.52***	5.092***	5.544***	4.478***
	(0.644)	(0.635)	(0.74)	(0.656)	(0.522)	(0.486)	(0.504)	(0.495)	(0.5)	(0.43)

No of observations
Adjusted R-square

Notes: The dependent variable is the logarithm of real monthly earnings. The significance at the 10 per cent, 5 per cent and 1 per cent levels is indicated by *, ** and *** respectively. Values in in brackets are bootstrap standard deviations, 300 replications.

Table A2: continued

Characteristics	2006				
	AG20_29	AG30_39	AG40_49	AG50 &more	_All
Characteristics					
Urban	0.042(0.136)	0.234*(0.138)	-0.117(0.138)	-0.045(0.184)	0.013(0.124)
Sex dummy	0.465***(0.074)	0.384***(0.074)	0.099(0.075)	0.167*(0.093)	0.292***(0.066)
Age					0.022***(0.003)
Effort					
Year of schooling	0.003(0.008)	0.019**(0.009)	0.029***(0.008)	0.025**(0.011)	0.017**(0.008)
Age of first entry to labor force market	-0.018***(0.007)	-0.017**(0.007)	-0.01(0.007)	-0.001(0.009)	-0.01(0.007)
Member in a trade union	-0.492***(0.074)	-0.255***(0.0732)	-0.115(0.077)	-0.21**(0.095)	-0.284***(0.066)
Actual job requires special skills	0.263***(0.064)	0.144**(0.064)	0.091(0.068)	0.096(0.082)	0.163***(0.058)
Labor market employment status					
Wage worker in a regular job (omitted)					
Wage worker in an irregular job	-0.383***(0.119)	-0.343***(0.125)	0.062(0.124)	-1.443***(0.163)	-0.268**(0.112)
Employer	-0.098(0.387)	-0.434(0.4)	-0.499(0.411)	0.216(0.542)	-0.324(0.352)
Self employee	-0.024(0.504)	-0.547(0.573)	-0.629(0.6)	0.098(0.746)	-0.411(0.487)
Work for family	-0.553(0.533)	-0.185(0.502)	0(0.501)	-0.629(0.685)	-0.191(0.43)
Occupation					
Senior officer and manager	0.123(0.224)	0.817***(0.231)	0.444**(0.23)	0.791***(0.28)	0.313(0.198)
Professionals	-0.223(0.196)	0.36*(0.194)	0.36*(0.194)	0.713***(0.24)	0.119(0.163)
Technician, professor	-0.189(0.187)	0.212(0.196)	0.182(0.198)	0.534**(0.254)	0.029(0.166)
Clerks	-0.153(0.198)	0.173(0.191)	0.323*(0.19)	0.618**(0.247)	0.07(0.172)
Market sale worker	-0.066(0.158)	0.224(0.163)	0.168(0.163)	0.436**(0.204)	0.051(0.139)
Skilled agricultural worker (omitted)					
Craft and related trade worker	-0.056(0.148)	0.286*(0.151)	0.03(0.15)	0.711***(0.197)	0.133(0.133)
Plant and machine operator	-0.167(0.199)	0.138(0.201)	0.144(0.2)	0.642***(0.247)	0.4(0.18)
Elementary occupations	0.086(0.222)	0.385*(0.23)	0.033(0.233)	0.644**(0.294)	0.234(0.206)
Employment sector					
Government (omitted)					
Public	0.264**(0.110)	0.14(0.112)	0.323***(0.114)	0.228(0.143)	0.227**(0.101)
Private	0.171*(0.091)	0.302***(0.088)	0.263***(0.9)	-0.123(0.121)	0.212**(0.085)
Joint-venture	0.297(0.281)	0.782***(0.287)	0.493*(0.295)	0.527(0.368)	0.476*(0.26)
Foreign	1.563*(0.893)	1.116(0.697)	0(0.458)	0(0.56)	1.442*(0.818)
Other	-0.606(0.534)	-0.249(0.537)	-0.088(0.531)	0.201(0.678)	-0.13(0.479)
Migrant dummy	0.227**(0.109)	0.101(0.114)	-0.009(0.114)	0.012(0.149)	0.068(0.103)

Circumstances

Father's years of schooling	0.013(0.011)	0.021**(0.011)	0.027**(0.109)	0.007(0.14)	0.018*(0.01)
Father's employment status					
Wage worker in a regular job	0.182(0.235)	-0.154(0.227)	0.025(0.231)	-0.058(0.292)	0.058(0.206)
Wage worker in an irregular job	0.182(0.231)	-0.146(0.226)	0.063(0.228)	0.011(0.289)	0.087(0.201)
Employer	0.169(0.243)	-0.167(0.233)	-0.027(0.236)	0.043(0.299)	0.071(0.208)
Self employee (omitted)					
Work for family	0.289(0.51)	-0.724(0.549)	-0.026(0.493)	0(0.659)	0.023(0.434)
Father's occupation					
Senior officer and manager	0.147(0.149)	0.213(0.151)	0.27*(0.151)	0.067(0.208)	0.149(0.138)
Professionals (omitted)					
Technician, professor	-0.427(0.162)	0.149(0.166)	0.174(0.177)	0.046(0.226)	0.054(0.15)
Clerks	-0.152(0.171)	0.103(0.167)	0.202(0.185)	0.172(0.251)	0.078(0.168)
Market sale worker	0.137(0.16)	0.076(0.165)	0.368**(0.168)	0.195(0.23)	0.166(0.154)
Skilled agricultural worker	0.118(0.164)	0.17(0.169)	0.3*(0.175)	0.053(0.224)	0.128(0.151)
Craft and related trade worker	0.213(0.165)	0.233(0.175)	0.339*(0.177)	0.035(0.24)	0.189(0.159)
Plant and machine operator	0.322(0.202)	0.226(0.209)	0.324(0.221)	0.072(0.286)	0.199(0.19)
Elementary occupations	0.363(0.232)	0.285(0.234)	0.544**(0.244)	0.449(0.324)	0.342*(0.204)
Mother's years of schooling	0.011(0.012)	-0.011(0.011)	-0.002(0.011)	0.01(0.015)	0.003(0.011)
Mother's employment status					
Wage worker in a regular job	-0.109(0.142)	0.071(0.144)	0.135(0.151)	0.166(0.188)	-0.084(0.13)
Wage worker in an irregular job	0.005(0.194)	0.413**(0.205)	0.242(0.211)	0.786***(0.255)	0.039(0.182)
Employer (omitted)					
Self employee	0.115(0.132)	0.186(0.129)	-0.012(0.136)	0.034(0.182)	-0.034(0.122)
Work for family	0.013(0.123)	0.105(0.127)	0.155(0.128)	0.215(0.164)	0.02(0.12)
Mother's occupation					
Senior officer and manager	0.327(0.299)	0.534*(0.301)	0.249(0.3)	-1.052***(0.375)	0.345(0.274)
Professionals	0.545*(0.287)	0.838***(0.289)	0.177(0.292)	-1.016***(0.351)	0.469*(0.256)
Technician, professor	0.505*(0.298)	0.731**(0.299)	0.229(0.291)	-0.898**(0.379)	0.499*(0.265)
Clerks	0.462(0.306)	0.671**(0.3)	0.151(0.3)	-0.897**(0.384)	0.424(0.272)
Market sale worker	0.187(0.284)	0.55*(0.283)	0.211(0.288)	-1.086***(0.362)	0.252(0.258)
Skilled agricultural worker	0.355(0.288)	0.639**(0.29)	0.303(0.29)	-0.999***(0.351)	0.355(0.258)
Craft and related trade worker	0.259(0.291)	0.686**(0.29)	0.221(0.289)	-1.107***(0.356)	0.282(0.259)
Plant and machine operator	0.071(0.314)	0.505(0.316)	0.72(0.324)	-1.141***(0.416)	0.181(0.29)
Elementary occupations (omitted)					
Region of Birth					
Greater Cairo governorate	0.132(0.122)	0.015(0.12)	-0.06(0.128)	0.158(0.156)	0.096(0.104)
Alexandria and Suez canal (omitted)					
Urban lower Egypt	-0.198*(0.118)	-0.277**(0.12)	-0.068(0.124)	-0.15(0.154)	-0.153(0.106)

Urban upper Egypt	-0.14(0.112)	-0.221*(0.116)	-0.211*(0.118)	-0.027(0.155)	-0.148(0.1)
Rural lower Egypt	-0.059(0.162)	-0.078(0.165)	-0.351**(0.164)	-0.117(0.209)	-0.132(0.148)
Rural upper Egypt	-0.07(0.174)	0.073(0.174)	-0.293*(0.171)	-0.137(0.222)	-0.139(0.154)
Constant	5.76***(0.469)	4.964***(0.47)	5.299***(0.485)	6.496***(0.604)	4.637***(0.43)

No of observations
Adjusted R-square

Notes: The dependent variable is the logarithm of real monthly earnings. The significance at the 10 per cent, 5 per cent and 1 per cent levels is indicated by *, ** and *** respectively. Values in in brackets are bootstrap standard deviations, 300 replications.

Table A3: Regression of Earnings on Observed Circumstances and Efforts by Age Group: Reduced Form Model

	1988					1998				
	AG20_29	AG30_39	AG40_49	AG50 &more	_All	AG20_29	AG30_39	AG40_49	AG50 &more	_All
Urban dummy	-0.141	0.143	0.214	0.19	0.020	0.139	0.127	0.186	0.101	0.152
	(0.143)	(0.164)	(0.172)	(0.337)	(0.132)	(0.121)	(0.121)	(0.126)	(0.133)	(0.113)
Male dummy	0.532***	0.331***	0.538***	0.387**	0.406***	0.527***	0.308***	0.302***	0.211***	0.310***
	(0.085)	(0.088)	(0.099)	(0.181)	(0.076)	(0.068)	(0.069)	(0.067)	(0.073)	(0.061)
Age					0.017***					0.020***
					(0.003)					(0.002)
Father's years of schooling	0.026**	0.006	0.008	0.234***	0.003	0.009	0.017*	0.034***	-001	0.02**
	(0.012)	(0.012)	(0.014)	(0.025)	(0.011)	(0.010)	(0.01)	(0.010)	(0.011)	(0.009)
Father's employment status										
Wage worker in a regular job	-0.086	-0.151	0.017	-0.139	.0187	0.005	0.500**	-0.371*	-0.603***	0.011
	(0.252)	(0.267)	(0.287)	(0.560)	(0.226)	(0.209)	(0.209)	(0.223)	(0.231)	(0.191)
Wage worker in an irregular job	0	0.095	0.339	0.030	0.365	-0.01	0.524**	-0.36	-0.406*	0.052
	(0.252)	(0.271)	(0.293)	(0.582)	(0.223)	(0.209)	(0.209)	(0.223)	(0.235)	(0.191)
Employer	0.123	-0.046	0	0	0.291	-0.097	0.419*	-0.349	-0.561**	-0.026
	(0.270)	(0.281)	(0.306)	(0.572)	(0.237)	(0.218)	(0.219)	(0.232)	(0.242)	(0.197)
Self employee (*omitted*)										
Work for family	0	0.418	0	0	0.476	0.173	1.17**	-0.506	-0.326	0.227
	(0.633)	(0.708)	(0.804)	(1.387)	(0.582)	(0.527)	(0.582)	(0.537)	(0.549)	(0.455)
Father's occupation										
Senior officer and manager	0.832***	-0.013	-0.234	-1.31	0.331**	0.191	0.018	0.357**	-0.058	0.155
	(0.168)	(0.180)	(0.193)	(0.381)	(0.153)	(0.132)	(0.136)	(0.143)	(0.153)	(0.128)
Professionals (*omitted*)										
Technician, professor	0.056	0	0.153	0	0.170	-0.024	0.067	0.080	0.160	0.107
	(0.202)	(0.213)	(0.229)	(0.427)	(0.180)	(0.153)	0.155)	(0.158)	(0.163)	(0.141)
Clerks	1.329***	0.311	0.071	-1.834***	0.669***	0.066	0.030	0.321*	-0.003	0.143
	(0.201)	(0.218)	(0.251)	(0.485)	(0.178)	(0.158)	(0.160)	(0.166)	(0.178)	(0.154)

Market sale worker	1.052***	-0.077	0.095	-0.451	0.502***	0.071	-0.009	0.359**	-0.058	0.172
	(0.187)	(0.190)	(0.207)	(0.407)	(0.164)	(0.146)	(0.148)	(0.156)	(0.16)	(0.141)
Skilled agricultural worker	0.858***	-0.048	0.373*	-0.684*	0.379**	0.058	-0.037	0.304*	-0.329**	0.076
	(0.193)	(0.205)	(0.226)	(0.399)	(0.175)	(0.151)	(0.151)	(0.159)	(0.162)	(0.138)
Craft and related trade worker	1.072***	-0.163	-0.198	-0.506	0.524***	-0.055	-0.051	0.267	-0.042	0.104
	(0.197)	(0.207)	(0.227)	(0.42)	(0.178)	(0.157)	(0.161)	(0.168)	(0.183)	(0.153)
Plant and machine operator	1.238***	0.224	-0.431	0	0.553***	-0.059	0.072	0.358*	0.05	0.146
	(0.222)	(0.241)	(0.179)	(0.486)	(0.202)	(0.179)	(0.185)	(0.185)	(0.195)	(0.166)
Elementary occupations	0.824***	0.235	-0.828**	0	0.289	-0.048	0.149	0.145	-0.110	0.157
	(0.284)	(0.294)	(0.328)	(0.585)	(0.25)	(0.221)	(0.215)	(0.224)	(0.232)	(0.199)
Mother's years of schooling	0.027**	0.082***	0.074***	0.237***	0.046***	0.015	0.013	0.026**	0.019	0.008
	(0.012)	(0.013)	(0.015)	(0.028)	(0.011)	(0.011)	(0.010)	(0.011)	(0.011)	(0.01)
Mother's employment status										
Wage worker in a regular job	0.209	-0.158	-0.027	-0.154	-0.033	-0.112	-0.113	0.277**	-0.36***	-0.143
	(0.151)	(0.166)	(0.178)	(0.346)	(0.137)	(0.126)	(0.129)	(0.132)	(0.133)	(0.117)
Wage worker in an irregular job	0.119	-0.048	0.401*	0	0.212	-0.062	-0.035	0.169	-0.995***	-0.095
	(0.202)	(0.202)	(0.231)	(0.423)	(0.175)	(0.164)	(0.164)	(0.170)	(0.173)	(0.152)
Employer (omitted)										
Self employee	0.162	-0.055	-0.119	0.138	0.11	0.055	-0.192	0.553***	0***	-0.056
	(0.140)	(0.151)	(0.167)	(0.334)	(0.127)	(0.115)	(0.118)	(0.120)	(0.126)	(0.107)
Work for family	-0.027	-0.298**	0	0	-0.328***	0.195*	0.033	0.485***	-0.198*	-0.006
	(0.131)	(0.142)	(0.16)	(0.291)	(0.125)	(0.106)	(0.106)	(0.112)	(0.115)	(0.105)
Mother's occupation										
Senior officer and manager	0.660**	-0.001	-0.118	0	0.215	-0.207	0.343	0.482*	0.531*	0.210
	(0.312)	(0.324)	(0.352)	(0.633)	(0.279)	(0.254)	(0.256)	(0.261)	(0.274)	(0.238)
Professionals	0.706**	-0.083	0.641*	0	0.391	-0.136	0.27	0.272	0.387	0.193
	(0.307)	(0.316)	(0.345)	(0.616)	(0.273)	(0.243)	(0.243)	(0.251)	(0.258)	(0.223)
Technician, professor	0.339	0.118	-1.826***	0	-0.120	-0.17	0.147	0.089	0.157	0.036
	(0.317)	(0.319)	(0.354)	(0.614)	(0.28)	(0.249)	(0.247)	(0.256)	(0.265)	(0.226)
Clerks	-0.196	0	0	0	-0.385	-0.219	0.141***	0.171	0.535*	0.088
	(0.319)	(0.33)	(0.357)	(0.648)	(0.280)	(0.252)	(0.248)	(0.265)	(0.275)	(0.234)
Market sale worker	0.342	0.360	0.536	-0.428	0.280	-0.303	0.161	-0.349	-0.141	-0.115
	(0.311)	(0.311)	(0.351)	(0.621)	(0.274)	(0.244)	(0.243)	(0.251)	(0.256)	(0.224)

Skilled agricultural worker	0.530	0.139	-0.094	-0.458	0.200	-0.268	0.01	-0.046	-0.092	-0.66
	(0.304)	(0.311)	(0.346)	(0.579)	(0.273)	(0.242)	(0.240)	(0.252)	(0.26)	(0.223)
Craft and related trade worker	0.493	0.285	-0.090	0	0.23	-0.021	0.292	0.046	0.264	0.115
	(0.308)	(0.314)	(0.358)	(0.652)	(0.273)	(0.253)	(0.25)	(0.261)	(0.263)	(0.231)
Plant and machine operator	0	1.437***	0	0	-0.155	-0.093	0.339	0.154	0.347	0.056
	(0.341)	(0.369)	(0.387)	(0.733)	(0.311)	(0.272)	(0.271)	(0.283)	(0.293)	(0.257)
Elementary occupations (omitted)										
Region of Birth Greater Cairo governorate	0.369***	0.006	0.089	-0.063	-0.007	0.155	0.046	0.123	-0.128	0.054
	(0.135)	(0.138)	(0.161)	(0.283)	(0.121)	(0.112)	(0.110)	(0.115)	(0.121)	(0.099)
Alexandria and Suez canal (omitted)										
Urban lower Egypt	0.593***	-0.025	0.377**	0.040	-0.021	-0.1	-0.115	-0.081	-0.32***	-0.133
	(0.142)	(0.143)	(0.169)	(0.305)	(0.128)	(0.112)	(0.111)	(0.112)	(0.121)	(0.102)
Urban upper Egypt	0.115	-0.040	0.391**	0.245	0.028	-0.063	-0.131	-0.133	-0.260**	-0.161
	(0.135)	(0.138)	(0.162)	(0.291)	(0.123)	(0.105)	(0.106)	(0.108)	(0.115)	(0.097)
Rural lower Egypt	0.089	-0.184	0.194	0.382	-0.58	0.133	-0.03	-0.035	-0.212	-0.017
	(0.18)	(0.192)	(0.206)	(0.394)	(0.162)	(0.149)	(0.148)	(0.160)	(0.169)	(0.142)
Rural upper Egypt	0.141	0.019	0.020	0.088	-0.302	-0.050	-0.105	-0.082	-0.154	-0.135
	(0.183)	(0.201)	(0.211)	(0.415)	(0.166)	(0.155)	(0.153)	(0.161)	(0.170)	(0.144)
Constant	3.637	5.618***	5.719***	6.369***	3.99***	5.174***	4.78	5.102***	6.871***	4.626
	(0.466)	(0.495)	(0.531)	(0.991)	(0.404)	(0.39)	(0.383)	(0.388)	(0.391)	(0.347)

No of observations
Adjusted R-square

Notes: The dependent variable is the logarithm of real monthly earnings. The significance at the 10 per cent, 5 per cent and 1 per cent levels is indicated by *, ** and *** respectively. Values in in brackets are bootstrap standard deviations, 300 replications.

Table A3: continued

	2006				
	AG20_29	AG30-39	AG40-49	AG50 &more	_All
Urban dummy	0.077(0.12)	0.213*(0.123)	-0.056(0.122)	0.062(0.129)	0.062 (0.112)
Male dummy	0.612***(0.069)	0.495***(0.068)	0.219***(0.067)	0.314***(0.069)	0.404***(0.061)
Age					0.018***(0.002)
Father's years of schooling	0.019*(0.01)	0.023**(0.1)	0.041***(0.01)	0.021**(0.1)	0.025***(0.009)
Father's employment status					
Wage worker in a regular job	0.167(0.216)	-0.066(0.216)	0.057(0.209)	-0.154(0.22)	0.054(0.193)
Wage worker in an irregular job	0.204(0.216)	-0.024(0.216)	0.137(0.21)	0.069(0.221)	0.139(0.193)
Employer	0.211(0.229)	-0.125(0.227)	0.059(0.221)	-0.022(0.23)	0.104(0.201)
Self employee (*omitted*)					
Work for family	0.289(0.529)	-0.431(0.528)	0.159(0.497)	0(0.518)	0.006(0.446)
Father's occupation					
Senior officer and manager	0.214(0.136)	0.237*(0.138)	0.3**(0.139)	0.107(0.148)	0.188(0.127)
Professionals (*omitted*)					
Technician, professor	0.034(0.156)	0.122(0.154)	0.141(0.157)	0.205(0.161)	0.116(0.140)
Clerks	-0.116(0.157)	0.168(0.156)	0.259(0.16)	0.429**(0.17)	0.172(0.150)
Market sale worker	0.167(0.146)	0.048(0.148)	0.362**(0.149)	0.268*(0.156)	0.203(0.138)
Skilled agricultural worker	0.195(0.152)	0.086(0.151)	0.293*(0.152)	0.007(0.158)	0.132(0.136)
Craft and related trade worker	0.236(0.157)	0.233(0.162)	0.328**(0.16)	0.176(0.171)	0.241(0.150)
Plant and machine operator	0.351**(0.178)	0.218(0.179)	0.261(0.184)	0.273(0.187)	0.238(0.163)
Elementary occupations	0.243(0.222)	0.363*(0.219)	0.568***(0.22)	0.362*(0.215)	0.296(0.197)
Mother's years of schooling	0.011(0.1)	-0.008(0.1)	-0.003(0.1)	0.017(0.011)	0.000(0.01)
Mother's employment status					
Wage worker in a regular job	-0.053(0.128)	-0.042(0.127)	0.2(0.13)	0.518***(0.135)	-0.066(0.118)
Wage worker in an irregular job	-0.035(0.164)	-0.264(0.166)	0.24(0.167)	0.101(0.179)	-0.049(0.151)
Employer (omitted)					
Self employee	0.124(0.115)	0.111(0.116)	0.106(0.119)	0.395***(0.126)	-0.023(0.106)
Work for family	0.061(0.106)	-0.008(0.107)	0.2*(0.108)	0.561***(0.114)	0.014(0.105)
Mother's occupation					
Senior officer and manager	0.096(0.254)	0.409(0.253)	0.472*(0.254)	0.197(0.261)	0.374(0.236)
Professionals	0.368(0.245)	0.772***(0.242)	0.398(0.244)	0.227(0.243)	0.52**(0.221)
Technician, professor	0.306(0.252)	0.472*(0.248)	0.287(0.248)	0.19(0.248)	0.356(0.225)
Clerks	0.22(0.254)	0.386(0.251)	0.29(0.253)	0.24(0.262)	0.353(0.232)

Market sale worker	-0.034(0.245)	0.275(0.243)	0.11(0.247)	-0.299(0.248)	0.08(0.223)
Skilled agricultural worker	0.053(0.244)	0.326(0.241)	0.187(0.245)	-0.237(0.245)	0.143(0.221)
Craft and related trade worker	0.119(0.254)	0.372(0.248)	0.231(0.248)	-0.312(0.254)	0.155(0.228)
Plant and machine operator	0.064(0.374)	0.539**(0.269)	0.108(0.275)	-0.066(0.277)	0.236(0.254)
Elementary occupations (omitted)					
Region of Birth					
Greater Cairo governorate	0.181(0.114)	0.105(0.113)	-0.09(0.112)	0.116(0.118)	0.108(0.101)
Alexandria and Suez canal (omitted)					
Urban lower Egypt	-0.143(0.117)	-0.262**(0.115)	-0.073(0.112)	-0.166(0.114)	-0.150(0.104)
Urban upper Egypt	-0.108(0.109)	-0.168(0.108)	-0.21**(0.107)	-0.069(0.111)	-0.129(0.098)
Rural lower Egypt	0.03(0.147)	-0.084(0.152)	-0.374**(0.152)	-0.116(0.159)	-0.110(0.140)
Rural upper Egypt	-0.027(0.155)	-0.063(0.156)	-0.286*(0.156)	-0.163(0.163)	-0.108(0.144)
Constant	4.745***(0.392)	5.104***(0.377)	5.35***(0.383)	5.539***(0.378)	4.544***(0.346)

No of observations

Adjusted R-square

Notes: The dependent variable is the logarithm of real monthly earnings. The significance at the 10 per cent, 5 per cent and 1 per cent levels is indicated by *, ** and *** respectively. Values in in brackets are bootstrap standard deviations, 300 replications.