

# The wellbeing and gender effect of good quality Jobs: Evidence from the leather and agro-processing industry

Gebeyehu M. Fetene ([gebeyehumd@gmail.com](mailto:gebeyehumd@gmail.com)), Assist. Prof., AAU

Joint work with Tigabu D. Getahun ([tigyget14@gmail.com](mailto:tigyget14@gmail.com)): Lead Researcher, PSI

Jobs for Development workshop

Policy Studies Institute (PSI), Addis Ababa

Feb. 22 – 24, 2023

# Introduction

- Job quality has been increasingly important policy issue, attracting the attention of politicians, policy practitioners and academia (Cazes et al., 2015; Findlay et al., 2013; Holman, 2013).
- This is because job quality affects
  - ▶ Productivity (Dosi et al., 2020; Kiruga, 2019; Stansbury and Summers, 2017)
  - ▶ Health of workers (Barnett et al., 1993; Henseke, 2018).
- Poor quality jobs leads to
  - ▶ high labor-turnover, shrinking, strikes, ...
  - ▶ injuries and health problems, which, also affects productivity
  - ▶ retard growth.

# Introduction

- It is well documented that women have been earning low wage rates for centuries (e.g., Blau and Ferber, 1987; Jung et al., 2018)
- Justification for gender earning gap:
  1. Differences in human capital endowments (Blau, 1998; Blau and Kahn, 2017)
  2. The dual-responsibility of women (home activity and field work) → shorter hours for work → low earning (Keene and Reynolds, 2005; Lowen and Sicilian, 2009)
  3. Difference in preference, e.g., risk (Jung et al., 2018),
  4. Discrimination including occupational segregation (Blau et al., 2013; Kunze, 2005; Levanon et al., 2009)

# Introduction

- There have been efforts by various stakeholders to
  - reduce gender-based wage gaps and
  - to improve the overall working conditions (Clark, 2005; ILO and MoLSA, 2013; Robinson and Smallman, 2006).
- Consequently, gender equality in the labor market improved overtime in many countries (Blau, 1998; Blau and Kahn, 2017; Cloutier et al., 2010; Green et al., 2013).
- Similarly, the overall working hours and work-related accident rates declined overtime (Borjas, 2016; McConnell et al., 2010).
- However, the improvements in working conditions have not been inclusive and they have been country-specific (Fagan et al., 2007; Green et al., 2013).

# Introduction

- For instance,
  - ❑ relative income of unskilled women deteriorated (Blau and Kahn, 2017),
  - ❑ little change is observed on gender-based job segregation among high school dropout women (Blau et al., 2013).
  - ❑ women still lag behind men, holding relatively low quality jobs with relatively limited opportunities for growth (Mühlau, 2011; Santero-Sanchez et al., 2015).
  - ❑ women lag behind men in both wage and non-wage job qualities (Stier and Yaish, 2014)

# Motivation of the study

- However, empirical evidence is limited about
  1. Quality of jobs in developing countries – most of the studies have been conducted in the case of developed countries
  2. whether
    - there is trade-off between wage and non-wage attributes of jobs
    - quality jobs are inclusive.
  3. literature about wellbeing and gender effects of good quality jobs in the case of developing countries is scant (Kolev and Robles, 2010; Nielsen, 2000; Siphambe, 2001; Temesgen, 2006).

# Motivation of the study

- Studies investigated mainly the gender earning gap, with little attention to gender differences in non-wage attributes of jobs.
- Moreover, women in developing countries face distinctive challenges that women in advanced countries do not (Cohen, 2006; Sultana and Zulkefli, 2013).
- Hence, gender gap findings in developed countries that most of the previous studies investigated may not apply in developing countries contexts.

# Motivation of the study

- In this study, we investigate:
  1. the gender earning gap in Ethiopia
  2. gender-based differences in non-wage job qualities:
    - opportunities for growth,
    - working conditions,
    - women share in management, business ownership & employees
    - fringe benefits
  3. if employers offer higher salary at the expense of stressing and unfavorable working conditions.



# Data used for the study

- Surveys conducted by PSI
  - firm & worker level data
- Two sectors:
  - agro-processing and leather sectors in Ethiopia.
- Three round:
  - 2017 >>>>>> 476 firm + 610 workers
  - 2018 >>>>>> 400 firm (panel) + 552 workers
  - 2020 >>>>>> 213 firm (only agro-processing) + 262 workers
- Agro-processing sector includes census of large and medium firms and a random sample of small firms located in the six most populous cities in the country
- Leather - all firms in and around Addis Ababa plus firms which have offices in Addis Ababa.

# Data used for the study

- Variables of interest for the study:
  - Gender earning gap
  - gender difference in fringe benefits & other non-wage job quality amenities
  - Share of women workers, owners, managers and supervisors
  - Decentness of earning – whether the salaries are sufficient to cover basic expenses
  - Wellbeing: happiness, stress and physical working condition
  - Overall job quality
  
- ❑ All monetary values are at 2014 price

# Analytical Technique

- Descriptive statistics: mean and cumulative distribution
- Econometric model: the extended Oaxaca–Blinder decomposition (Jann, 2008; Nielsen, 2000; Sinning et al., 2008)
  - allows to disentangle the total gender gap in to a part that is because of endowment difference between women and men (the explained part) and a part that is not explained by the covariates used in the model (the unexplained part).
- Gender earning gap:

$$\underbrace{w_m - w_f}_{\text{Total log wage difference}} = \underbrace{(X_m - X_f)\beta_m}_{\text{Explained}} + \underbrace{X_f(\beta_m - \beta_f) + \epsilon_m - \epsilon_f}_{\text{unexplained}}$$

D/cv in human capital endowment

- Discrimination
- Preference
- Etc.

# Analytical Technique

- Econometric model:
  - fractional logit - the share of women in employment.
  - logit model - stressfulness of the work
  - ordered logit - happiness level and physical working condition rate

# Results

# Descriptive results

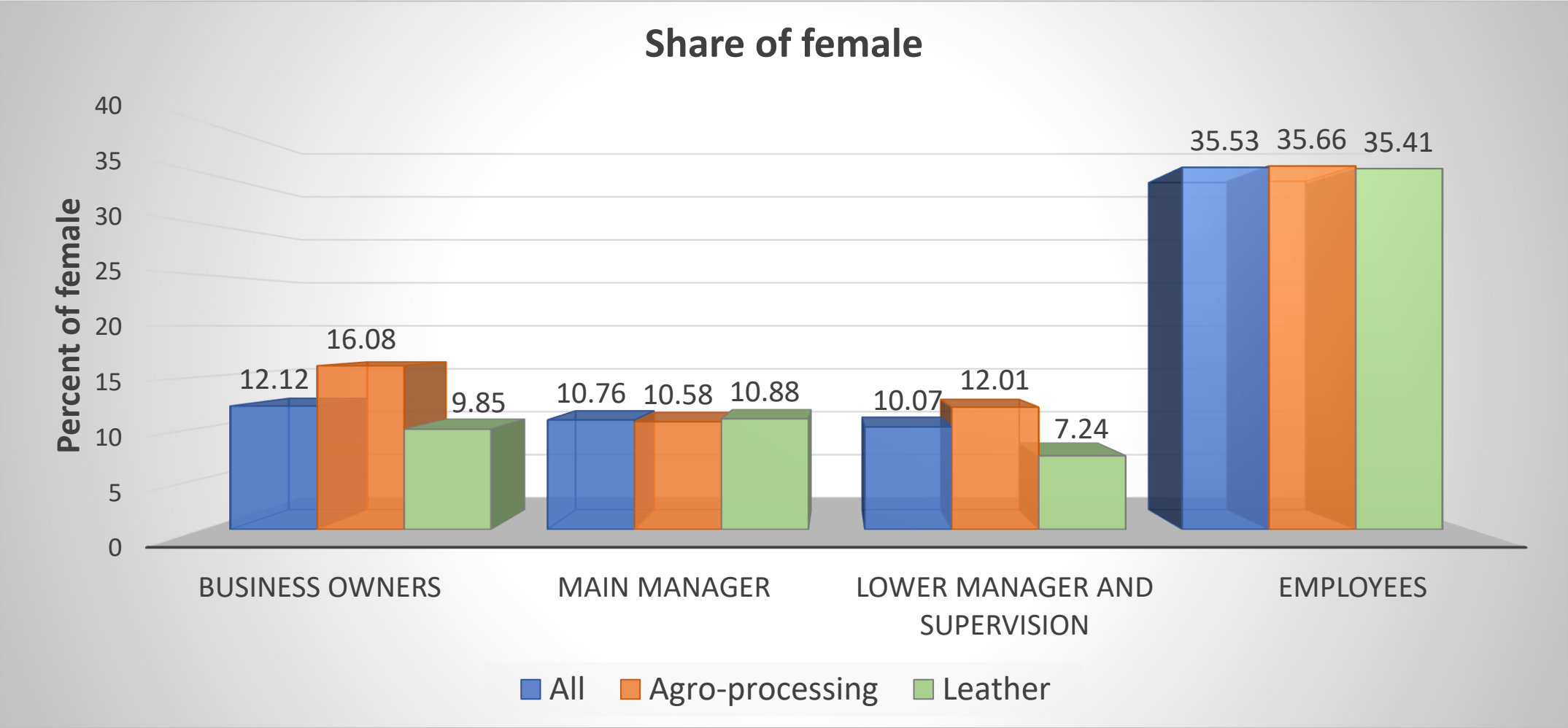
Age inclusiveness:

Gender inclusiveness	Total	Female	male	Agro-processing	Leather
<b>Age group:</b>					
[16 – 25)	25.9	31.9	20.4	24.7	30.0
[25 – 35)	39.1	36.7	41.2	41.2	32.4
[35 – 45)	20.7	20.7	20.8	21.8	19.2
[45 – 55)	9.8	7.4	12.1	9.1	10.5
[55 – 65)	4.2	3.2	5.0	3.3	6.6
≥ 65	0.4	0.2	0.5	0	1.4
Mean age	32.4	31	34	32.2	33.2
<b>No. of workers (firms)</b>	<b>1,424 (1,089)</b>	<b>678 (161)</b>	<b>746 (172)</b>	<b>288 (521)</b>	<b>1,136 (568)</b>

## Descriptive results

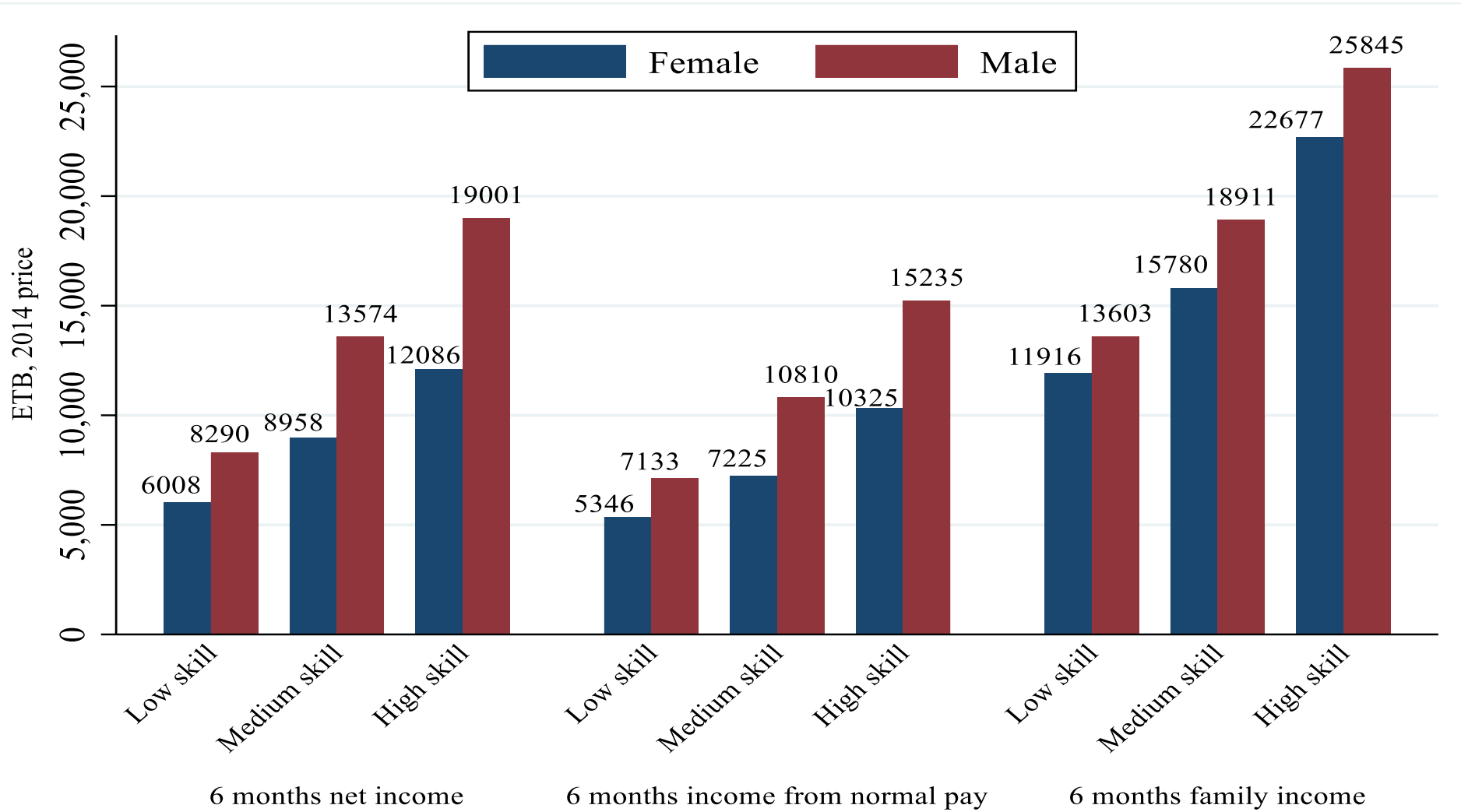
Gender and skill inclusiveness	Total	Female	male	Agro- processing	Leather
<b>Skill type:</b>					
Low	34.2	41.6	27.1	31.8	25.4
Medium	43.3	41.6	42.9	45.7	31.9
High	23.6	16.8	30.1	22.5	26.7
<b>Education level:</b>					
Has vocational or college education	24.2	16.1	31.6	26.1	16.7
Mean years of schooling	9.2	7.9	10.2	9.3	8.6
Computer literate	31.6	22.2	40.5	33.1	27.1
<b>No. of workers (firms)</b>	1,424 (1,089)	678 (161)	746 (172)	288 (521)	1,136 (568)

# Female share in managerial work & business ownership



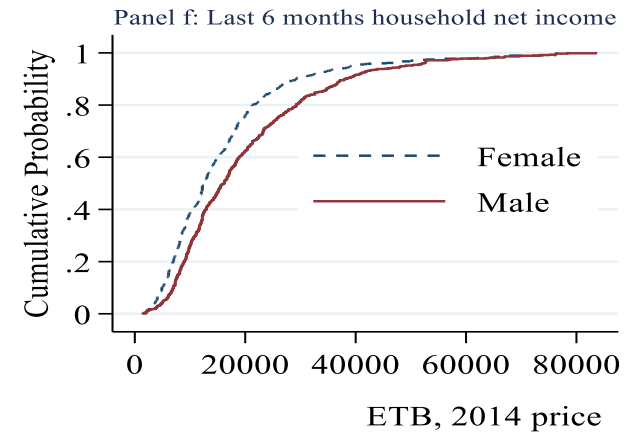
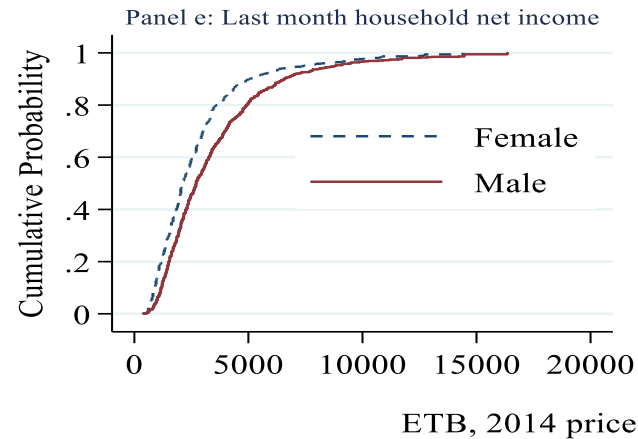
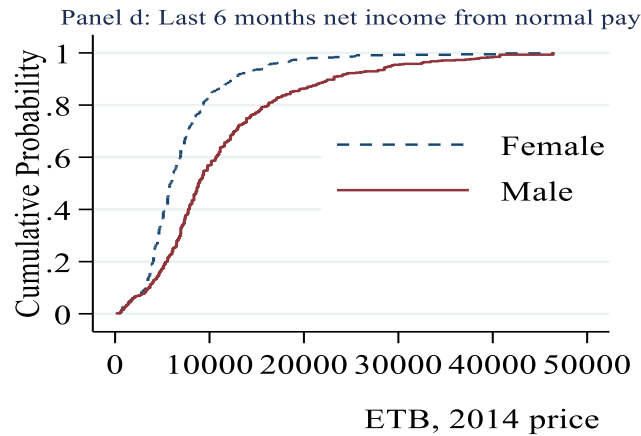
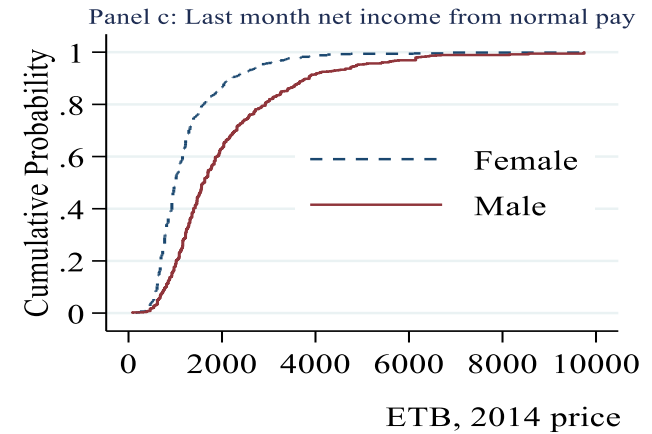
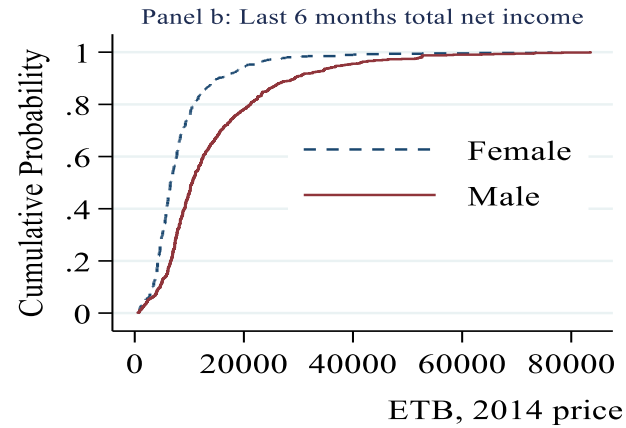
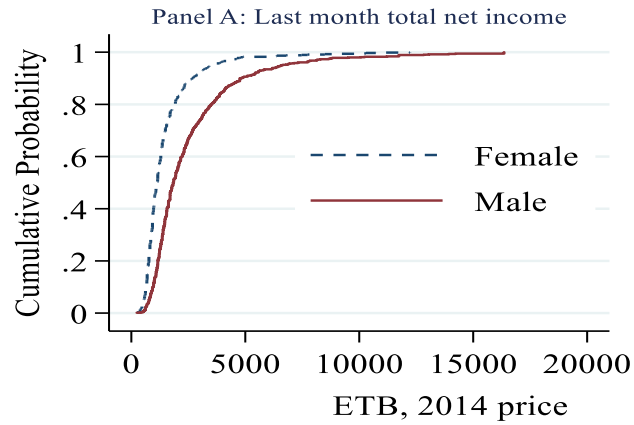


# Gender earning gap



Female workers earn less than men workers of similar skill do

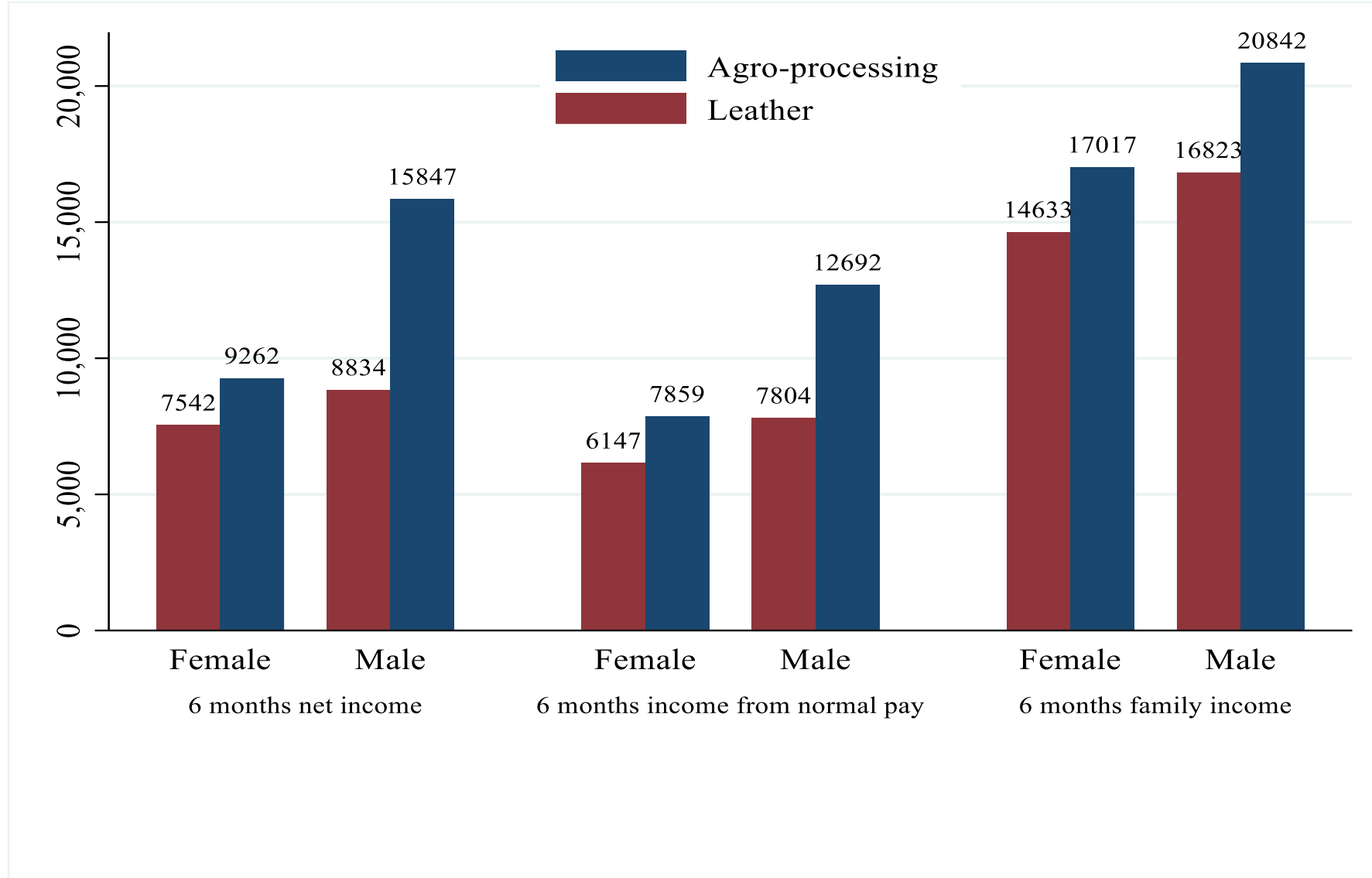
# Gender earning gap



Female workers earn less than men workers almost through out the income distributions.

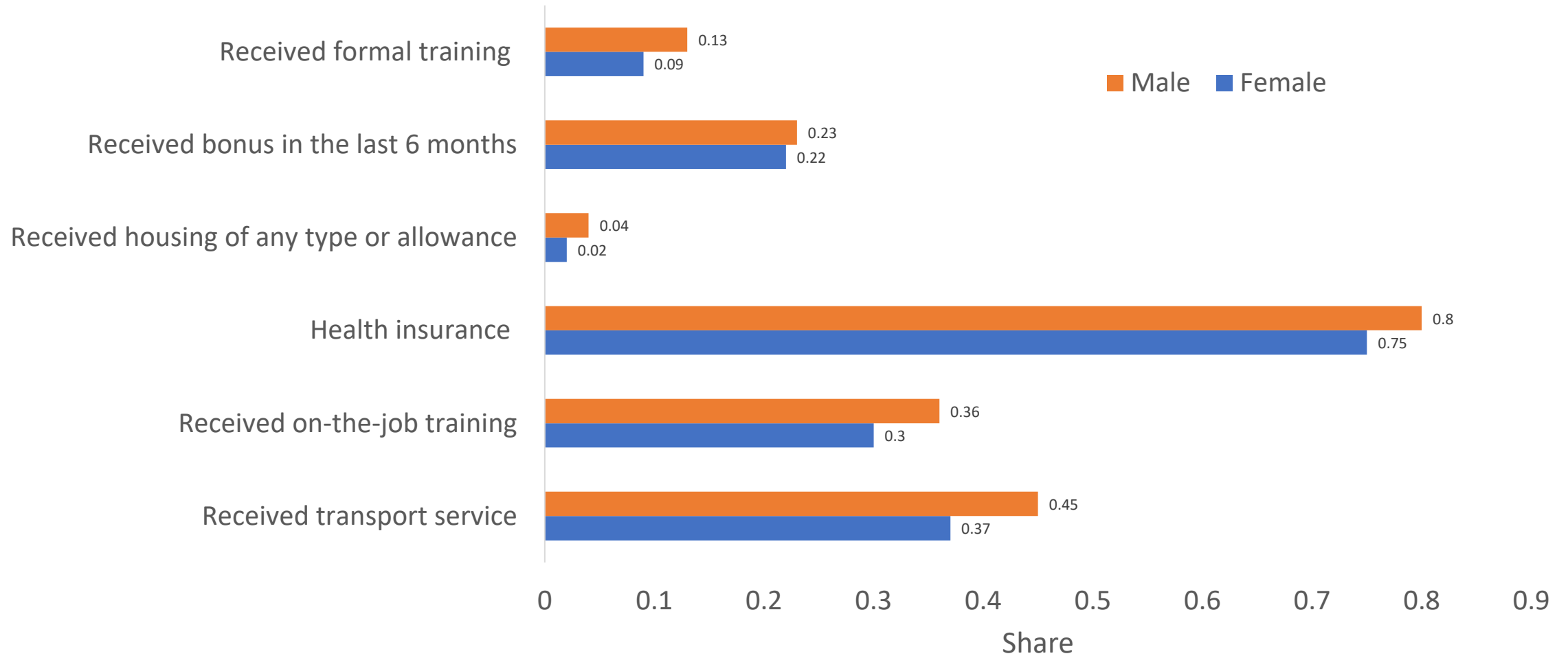
. Stat. sign.  
Di/c:e Kaplan  
(2019) test

# Earning d/c'e b/n agro-processing & leather



Female workers earn less than men workers do in both sectors

# Fringe benefits & gender



# Is there substitution b/n wage & fringe benefits

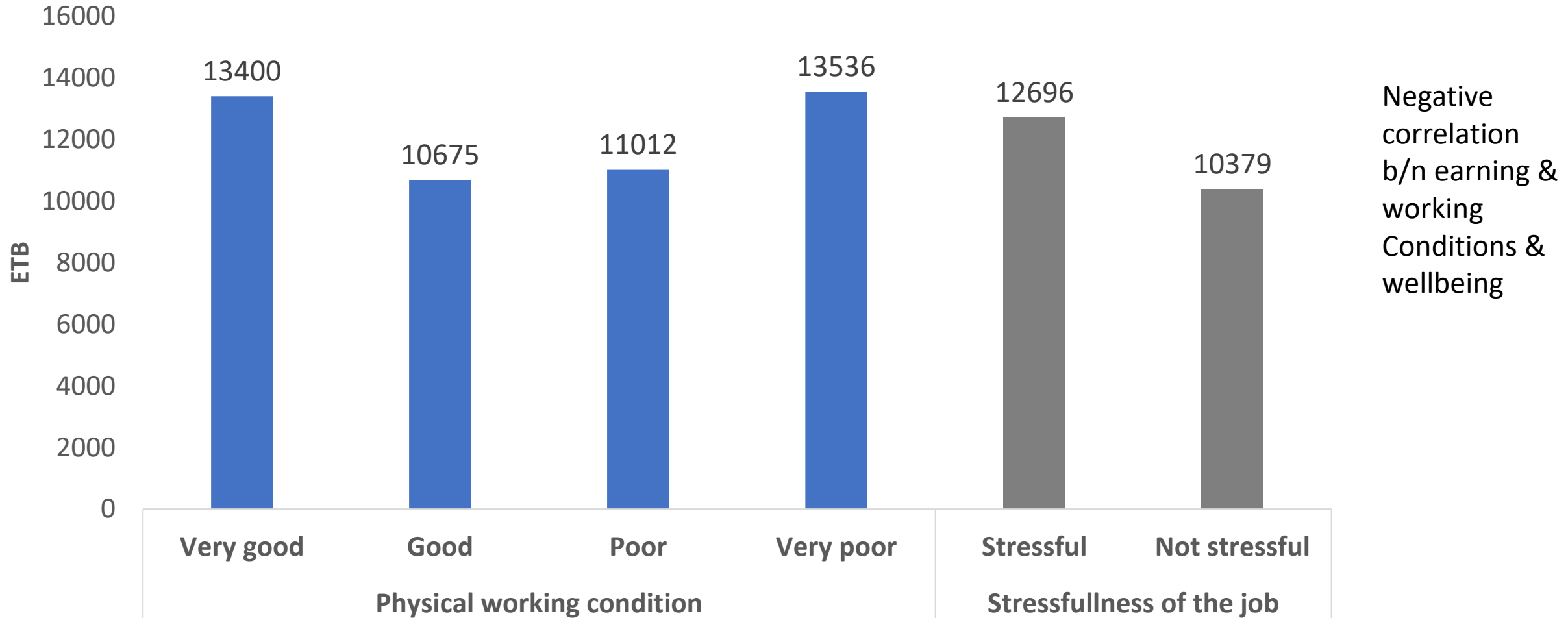
Fringe benefits and other job quality indicators	Men six months net earnings (mean, ETB)		Women six months net earnings (mean, ETB)		Gender earning gap (percentage diff. in parentheses)	
	Benefited (A)	Not benefited (B)	Benefited (C)	Not benefited (D)	A - C	B - D
Received house	14,102	14,460	7,350	8,562	6,752 (92)	5,898 (69)
Transport service	16,326	12,936	10,756	7,230	5,570 (52)	5,706 (79)
Health insurance	15,063	11,904	9,206	6,546	5,857 (64)	5,358 (82)
Receive on-the-job training	19,148	11,904	10,867	6,547	8,281 (76)	5,357 (82)
Receive formal training	24,529	12,534	15,606	7,754	8,923 (57)	4,780 (62)
Permanent contract	15,021	9,436	8,987	4,846	6,034 (67)	4,590 (95)
Receive free or subsidized meal	17,282	12,945	11,012	7,542	6,270 (57)	5,403 (72)

# Decentness of jobs & wellbeing

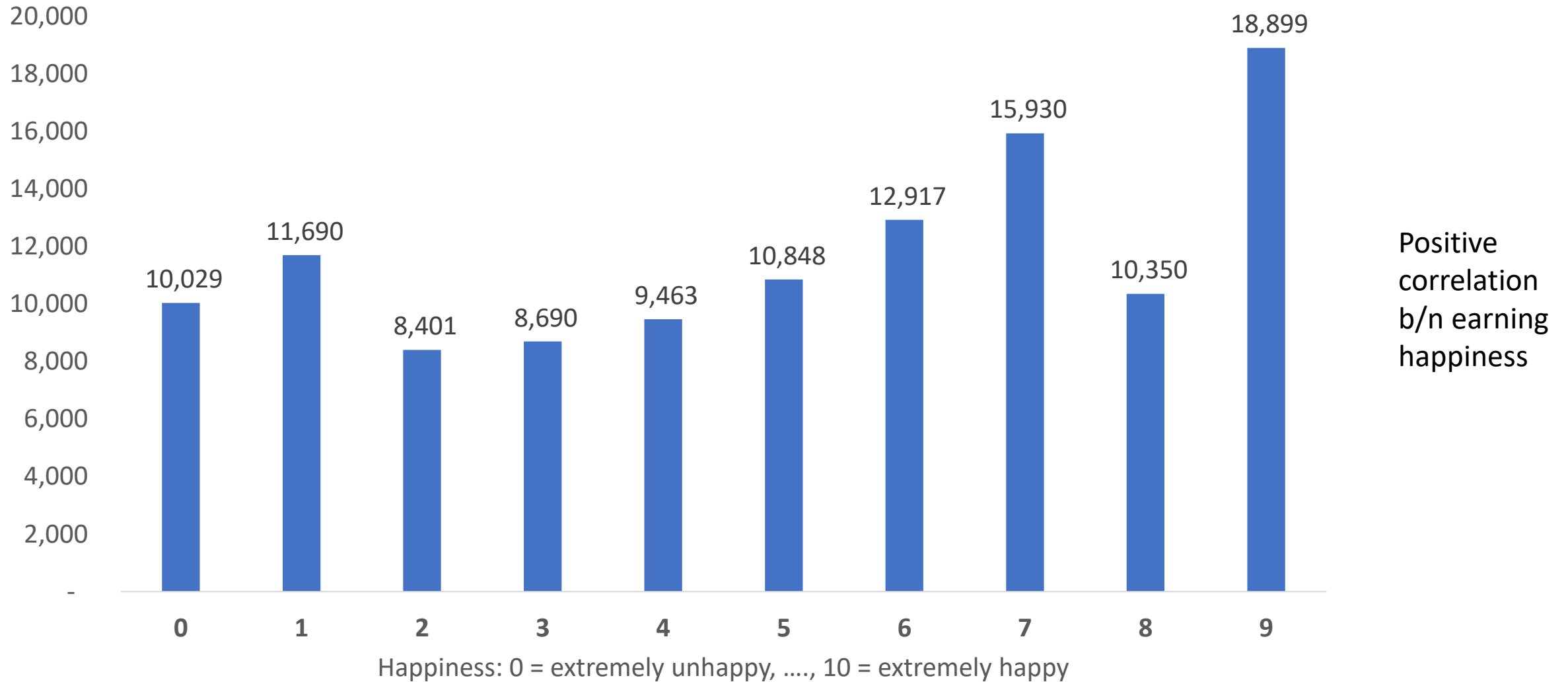
Indicators (1/0)	All	Total		
		Female	Male	Mean diff.
The work is stressful	0.40	0.38	0.42	-0.04
Feels being fairly compensated for work	0.28	0.27	0.29	-0.026
The wage is sufficient to cover basic needs	0.29	0.27	0.30	-0.038
The wage is sufficient to cover food expenses	0.63	0.59	0.66	-0.066**
The wage is sufficient to cover housing expenses	0.40	0.31	0.48	-0.174***
The wage is sufficient to cover health expenses	0.22	0.18	0.26	-.088***
The wage is sufficient to cover education expenses	0.22	0.15	0.29	-.138***
The wage is sufficient to cover clothing expenses	0.32	0.29	0.35	-.059**
The wage is sufficient to cover vacation expenses	0.10	0.06	0.14	-.071***
Number of respondents (workers)	1,162	567	595	

# Wellbeing & earning

Last 6 months total net income

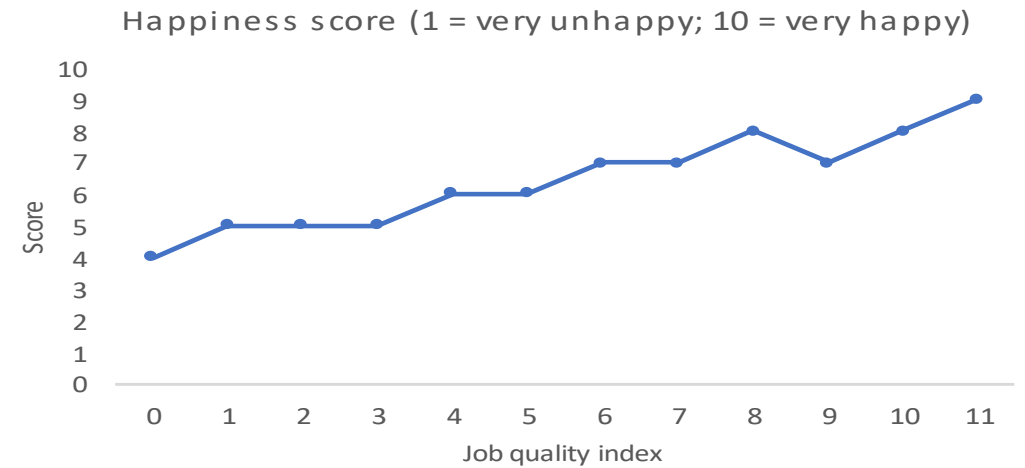
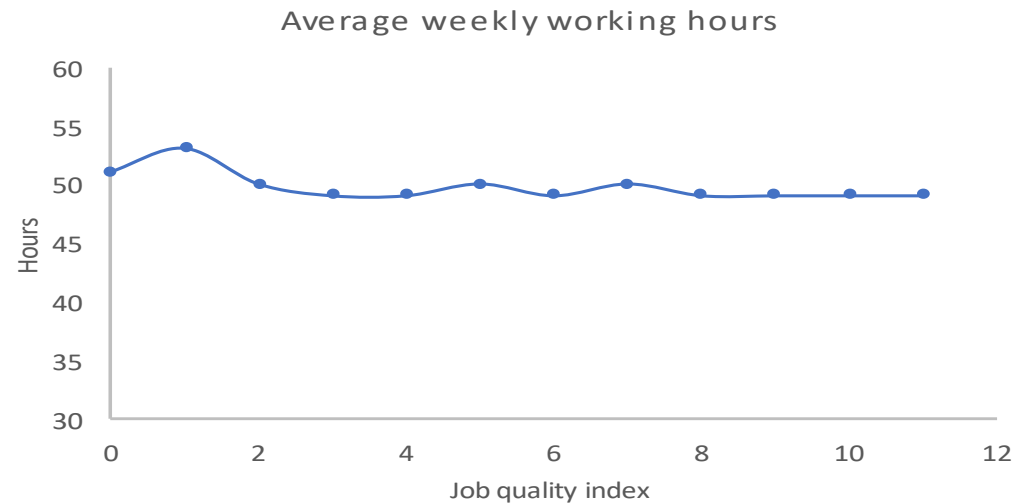
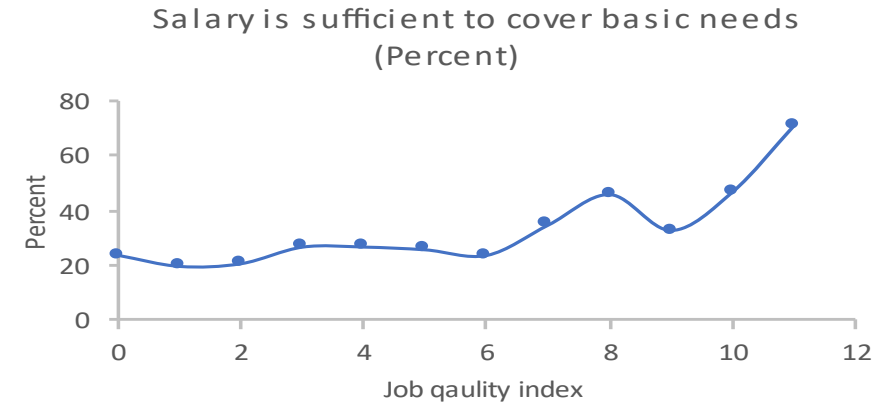
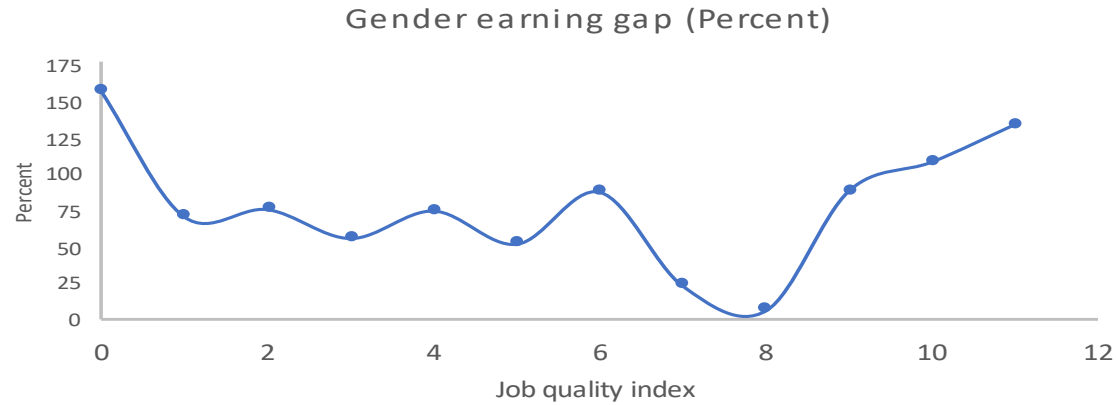


# Happiness & earning





# Correlation between job quality index (13 indicators) and gender earning gap and wellbeing



# Econometric results

# Gender earning gap (six months average income)

Gender earning gap	All sample	Agro-processing	Leather	2017	2018	2020
<b>Total wage gap (M - F)</b>	5482	5654	2275	4205	6451	7026
<b>% wage gap</b>	66	72	37	51	67	81
<b>Explained (endowment difference)</b>	2535	2391	961	2546	2821	1715
<b>Unexplained</b>	2948	3263	1314	1659	3630	5311
<b>% Gap unexplained</b>	54	58	58	39	56	76
<b>Number of workers</b>	1,013	975	293	600	413	262

- After controlling for a bunch of worker characteristics, we found that women earn around 66% less six months income than men do.
- The overall gender earning gap is higher in the agro-processing sector than in the leather sector. However, the unexplained gender gap is similar for both sectors.
- The gender earning gap increased overtime(N.B., the 2020 survey presents only the agro-processing sector).

# Gender earning gap

- Of this gender earning gap, differences in human capital and characteristics between women and men account around 46%.
- The remaining unexplained gender gap is 54% which could be due to gender discrimination of any type and due to potential preference differences between women and men that our model does not control for.
- Controlling for firm and manager characteristics reduces the unexplained part of the gender earning gap to around 28%.
- However, consistent with the literature (Lowen and Sicilian, 2009), we do not find statistically significant impact of job quality index on gender earning gap.

## Correlation between job quality and earning

Covariates	Last six months total net income (ETB, ln)			Share of women
	All sample	Men	women	All sample
Job quality index	<b>0.070***</b> (0.012)	<b>0.081***</b> (0.017)	<b>0.067***</b> (0.016)	-0.000 (0.001)
Medium skill	0.088* (0.049)	0.092 (0.074)	0.082 (0.062)	-0.004 (0.005)
High skill	0.257*** (0.068)	0.278** (0.090)	0.205** (0.080)	0.002 (0.006)
Born in rural area	-0.172*** (0.043)	-0.162** (0.058)	-0.145** (0.057)	0.001 (0.004)
Worker characteristics	Yes	Yes	Yes	Yes
Firm & manager char.	Yes	Yes	Yes	Yes
Region fixed effects	Yes	Yes	Yes	Yes
Time fixed effects	Yes	Yes	Yes	Yes
Constant	7.028*** (0.520)	6.826*** (0.652)	7.395*** (0.482)	-2.353*** (0.055)
Observations	975	502	473	975

- Positive correlation b/n earning & job quality, i.e., employers who provide better non-wage job quality pay also higher wage rate.
- However, we don't find stat. sig. correlation b/n job quality & share of women workers.

### Correlation between job quality and **wellbeing**

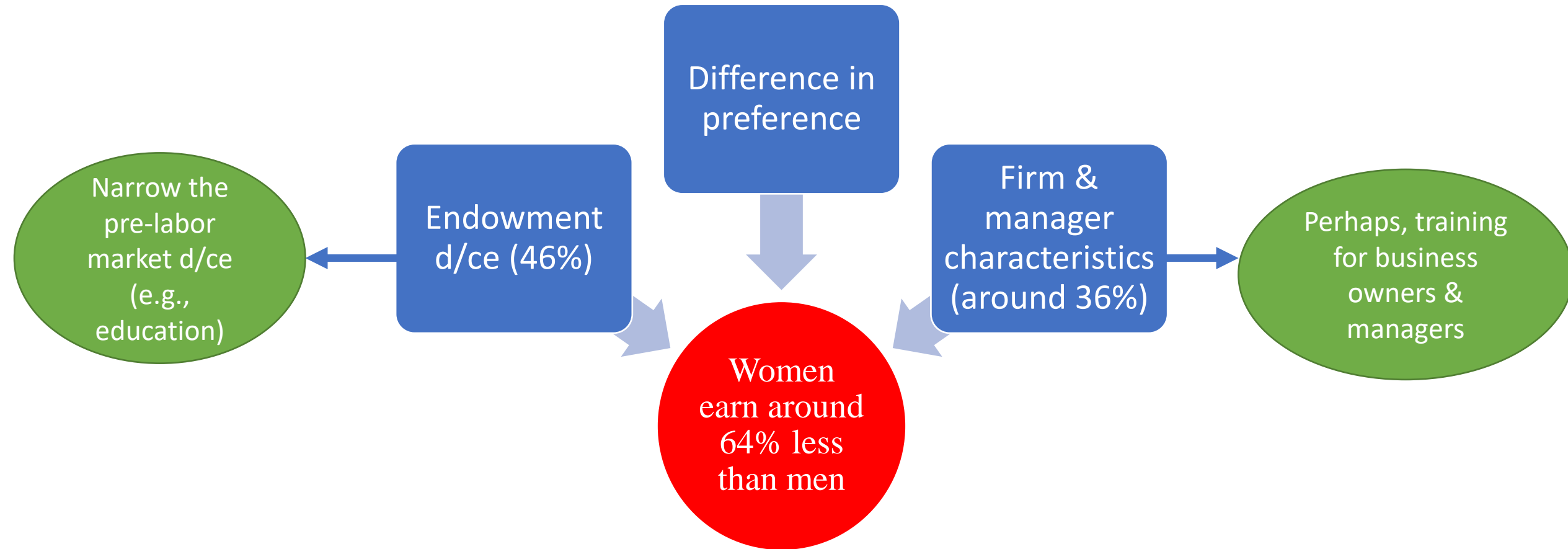
	Logit model	Ordered logit	Logit model	Ordered logit
Covariates	Feels that the wage is sufficient to cover basic needs (1/0)	Happiness scale on current work (1 = very unhappy; 10 = very happy)	I feel that my work is often stressful (1/0)	Rating of physical working condition (1 = very poor; 4 = very good)
Job quality	0.028 (0.064)	<b>0.306***</b> <b>(0.046)</b>	<b>-0.136**</b> <b>(0.057)</b>	<b>0.138**</b> <b>(0.059)</b>
Last six months net income (ETB, ln)	0.544** (0.259)	0.369** (0.153)	0.442** (0.170)	-0.060 (0.179)
Male worker	-0.297 (0.202)	<b>-0.302**</b> <b>(0.133)</b>	0.245 (0.168)	<b>-0.416**</b> <b>(0.174)</b>
Other controls	Yes	Yes	Yes	Yes
Fixed effects	Yes	Yes	Yes	Yes
Observations	975	975	975	975
chi2	288	464	393	225

# Summary of main findings

- We found that workers in the two sectors are
  - mainly young (with average age of 32.4 years),
  - less educated (with nine years mean years of schooling) and
  - with limited computer literacy.
- Overall, women working in leather & agro-processing sectors are
  - younger,
  - less educated and
  - less skilled than men do.
- Women are disadvantaged in terms of
  - their share in the employment (35.5%),
  - business ownership (12.1%),
  - main manager (CEO) of the firm (10.8%), and
  - other managerial and supervision positions (10.1%).

# Summary

- We found that women earn less income than men of similar skill level, where the gender earning gap increases with the skill level of workers.





# Summary

- It is not only income, women also receive less fringe benefits and opportunities than men do.
- However, (part of) the higher income and fringe benefits of men seems come at
  - the cost of stressful work
  - relatively poor working conditions;
  - ➔ men are less happy and work at relatively poor working conditions than women do.
- .
- The results further show that the jobs created in the agro-processing and leather sectors are not decent for most of the workers:
  - ➔ around 71% of the workers noted that their salaries are insufficient to cover expenses for basic needs.

Thank you!

Questions, comments & suggestions?