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María Esperanza Cuenca Coral
Adolfo C. Fernández Puente.
Juan Ricardo Perilla-Jiménez.

Departamento de Economía, Universidad del Norte, Barranquilla, Atlántico, Colombia

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Universidad del Norte

Departamento de Economía
Apartado aéreo 1569

Barranquilla, Colombia

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Author names and affiliations.

María Esperanza Cuenca Coral.
Corresponding author
Department of Economics.
Universidad del Norte,
Km. 5 vía Puerto Colombia.
Barranquilla (Colombia).
Cuencam@uninorte.edu.co.

Adolfo C. Fernández Puente.
Department of Economics.
Universidad de Cantabria (España).
Avenida de los castros s/n 39005
Santander.
Adolfocosme.fernandez@unican.es.

Juan Ricardo Perilla-Jiménez.
Department of Economics.
Universidad del Norte,
Km. 5 vía Puerto Colombia.
Barranquilla (Colombia).
perillaj@uninorte.edu.co.

Abstract

Using data from the Colombian Great Integrated Household Survey 2021, we explore whether the paradox of the contented female worker, prominent in the specialized literature, arises in the Colombian labor market. Controlling for self - selection bias that are typical in job market discrimination settings, we find supporting evidence of the paradox. We also find supporting evidence to the hypothesis of gender differences in utility functions and adaptive expectations of female workers to their more severe working conditions. Our research implies the need for public policy initiatives focused on both workers well-being and gender equality.

Keywords: Gender Economics, Labor Discrimination, Labor Market Equality, Working Conditions, JEL: J16, J710, J810.

1. Introduction

Job satisfaction and its determinants has defined a wide field of study in the economics literature. The effects of this variable on labor productivity, organizational performance and worker well-being appear to be undoubted. One of the issues of greatest interest in this context is the difference in job satisfaction between men and women. The motivation in this line of research arises from the fact that, although working conditions in most countries are considerably less favorable to women, their levels of job satisfaction seem to be generally higher. This result has come to be called in the economics literature as the paradox of the *contented female worker*.

The explanations for this paradox are diverse, although they can be grouped into three main blocks: (i) self - selection bias when participating in the labor market, which would lead just the most satisfied women to participate in the labor market; ii) differences in utility functions between men and women, with different impact of personal and work characteristics; and iii) the existence of adaptive expectations, which lead women to internalize the most unfavorable situation they traditionally endure and have a lower penalty in terms of job satisfaction.

The Colombian case is of special interest for several reasons: Most research works about the paradox of the contented female worker are related to the European or Anglo-Saxon contexts. In fact, to the best of our knowledge, there are no studies focusing their attention on Latin American countries. The Colombia's gender situation seems particularly interesting in this case due to its typically high records of inequality. According to the Global Gender Gap Index, prepared by the World Economic Forum, WEF (2022), to capture cross-country progress towards gender parity in economic, political, education and health dimensions, Colombia ranks 75th (out of 148 countries). In this country, access to the labor market is particularly difficult for women for social and cultural reasons that lead to greater gender discrimination (Tenjo and Ídarra, 2009). Additionally, according to data from the Great Integrated Household Survey (DANE-GEIH), Women's labor participation and employment rate are lower than those of men, and the gender pay gap stands at 20 percent, according to the study by Idrovo and Leyva (2014).

Culture related factors directly influence gender opportunities: women's activities are generally considered less valued and the role they occupy within the household prevails. (Idrovo and Leyva, 2014). A clear example is the sensitivity of female employment in times of crisis, such as that experienced during the COVID pandemic, where the percentages of jobs destroyed were much higher than those of men. In fact, statistical evidence suggests that a large proportion of women who left the labor market did so to meet care-related needs (DANE 2022).

Given this scenario, it is pertinent to ask whether in the context of the Colombian labor market the paradox of the contented female worker is also present or if, on the contrary, openly discriminatory working and social conditions have led Colombian women to have a lower level of job satisfaction reported than their male colleagues.

In this context, the objectives of this work are the following: i) to identify the differences in the job satisfaction of women and men; ii) study the impact of the gender variable on job satisfaction in aggregate terms; (iii) to observe whether the determinants of job satisfaction have the same impact on men as on women; iv) study the likely convergence in job satisfaction when considering younger and more educated population cohorts.

The structure of the article is as follows. The second section develops the theoretical framework that emphasizes the importance of job satisfaction and justifies the existence of the paradox of the contented female worker. In the third section, the sources, the theoretical model, and the econometric procedure are included. In the fourth section, the results are presented and discussed. Finally, in the fifth, we present some concluding remarks.

1. Theoretical framework

Job satisfaction is a field of study that has received a growing research interest in recent decades. The reason is none other than the impact of this variable on the performance of workers (Appelbaum and Kamal 2001; Hackman and Oldham, 1975; Iaffaldano and Muchinsky, 1980; Judge et al, 2001; Tietjen and Myer, 1998), on absenteeism (Hausknecht et al. 2008; Lee, 1998) and labor turnover (Hom and Griffeth, 1995).

The study of the "feeling of the worker towards his work" (Smith et al, 1969), to inquire whether there is a "positive or pleasurable emotional state resulting from the assessment of one's own work or work experience" (Locke, 1976) has proved to be very useful in social sciences. Not only is it decisive to the results of the organization, but it constitutes an end in itself being a key element of the well-being of individuals (Ellickson and Logston, 2001). This importance is confirmed by numerous studies that have tried to identify the determinants of job satisfaction and the differences between groups of workers.

One of the questions that has aroused most interest, since Clark's seminal work (1997), are the differences in job satisfaction between men and women. Although the results are not conclusive, some research findings suggest that women's job satisfaction is higher than that of men (Clark 1997; Hodson 1989; Sloane and Williams 2000; Long 2005; Souza-Poza and Sousa-Poza 2000; 2007, Hauret and Williams 2017; Sánchez-Sánchez and Fernández 2019; Fernández and Sánchez-Sánchez 2021). This result is, to say the least, surprising since women's working conditions, in

terms of wages and job segregation are, on average, less attractive than those of men (Duncan and Corcoran 1984; England and McCreary 1987; Madden 1985).

This result, known in the specialized literature as the paradox of the contented female worker (Crosby 1982), can have several explanations: i) the existence of a self - selection bias when participating in the labor market; ii) the existence of a different pattern of determinants of job satisfaction by gender; and iii) the presence of adaptive expectations in job satisfaction that would lead to a decrease in women's expectations and, therefore, higher job satisfaction.

Regarding the first hypothesis, there could be the possibility of a self - selection bias, prior to entry into the labor market, which would cause only the most satisfied women to participate in the paid labor market. From a theoretical point of view, this situation could be justified by arguing that, due to structural factors, such as social customs and mores, and an unequal distribution of power and gender roles, in certain situations, women have greater discretion when it comes to participating in the paid labor market. Clark (1997) and Carleton and Clain (2012) justify this idea through marital status. In this sense, the traditional division of tasks within the household could cause men to perform tasks in the paid labor market and women to perform unpaid tasks in the household. If this argument were true, women with a partner, who have alternative financial resources to those derived from their own work, would only participate in the labor market if they were satisfied with the activity they were going to perform. Otherwise, they would leave their job, or perhaps switch to another paid activity that would also provide them with greater satisfaction (Souza-Poza and Sousa-Poza, 2007).

This argument is supported, in part, by observing the differences in the activity rates of women and men, which are lower in most cases in the first group. From an econometric point of view, it would be necessary to correct for this bias to see if it is indeed only the most satisfied women who participate in the labor market.

In the younger and more educated cohorts, there is greater convergence in activity rates, so we would expect that, in these groups, women's perception of greater discretion in participating in the paid labor market would be lower and that, therefore, there would be some convergence in the job satisfaction of women and men (Donohue and Heywood, 2004; Clark, 1997).

A second explanation for the paradox is associated with differences in the utility functions of women and men that would cause the determinants of job satisfaction to be different according to gender. This line of argument could be justified by biological differences, which are beyond our analysis, or because women incorporate into their utility function aspects, not strictly labor-related, which are not included, or are included to a lesser extent, by men (Kanter, 1977). Given that women have traditionally occupied, to a greater degree, tasks associated with the care of children, dependents and the home, the impact of these variables on job satisfaction could be

greater (Borra et al. 2007). In fact, it could be the case that women, to a greater extent than men, could be satisfied with their work life depending on the time they have been able to dedicate to their children and dependents (Idrovo and Leyva, 2014). Although the results are not conclusive, it seems relevant to consider a variable to capture this aspect in the specification of the econometric model.

The third explanation for the paradox could be based on the theoretical framework of adaptive expectations (Bourguignon, 2004). In this sense, individuals who have experienced situations of deprivation and/or discrimination often internalize and normalize these circumstances and show a higher level of satisfaction than would be expected given this situation. For this reason and given that women have traditionally been in a worse position in the labor market than men, it could be expected that they would have lower job expectations. All things being equal, women's job satisfaction would be higher than that of men.

This result, in any case, needs to be contrasted because the opposite could occur. The existence of a reference group, men, with better working conditions, could make women workers more aware of the unfairness of their situation and cause them greater dissatisfaction (Luo, 2016).

This situation, again, could be transitory in the eventual case of a leveling of working conditions. In fact, if we consider the younger and more educated population cohorts, the disappearance of the paradox of the happy worker could occur, as pointed out by Sloane and Ward (2001) and Green et al. (2017).

2. Sources and methodology.

The results of this article are based on the Great Integrated Household Survey (DANE, 2022). This is a national-level survey widely used in applied research on the labor market in Colombia. The survey captures information corresponding to labor market characteristics and various variables associated with the sociodemographic conditions of the population. Our database contains a total of 240K observations among which circa 107K are female workers.

One of the main advantages of the survey is that it includes information about subjective perceptions by workers with regard their own work, which we use to capture job satisfaction, as well as information related to the workers themselves and the characteristics of their jobs. Given the design of the GEIH, where it is not possible to identify the same individual between different stages of the survey, in this research we have opted for a cross-sectional analysis for the year 2021.

Our theoretical model is based on the conceptual framework developed by Clark and Oswald (1996), which considers the utility functions of each worker as follows:

$$u = u(xj)\,, \qquad (1)$$

where x includes the worker's personal characteristics and j those related to the job, in line with the work of Barrick (2005) and Dierdorff and Morgeson (2013), respectively. In our model specification we include variables such as gender, age, educational level and whether they have a partner and/or dependents. Regarding labor characteristics, we include mainly intrinsic factors: occupational position (conventional employee, worker or public sector employee, self-employed, employer or employer and others), the economic activity to which he/she belongs and income. Annex 1 contains a description of the variables used, their definition, how they are measured and the usual descriptive statistics.

To estimate the model, it is assumed that job satisfaction can be used as a proxy variable for individual worker utility. Thus, job satisfaction would be defined as follows:

$$SL_i^* = \beta X_i + \alpha J_i + \varepsilon_i. \qquad (2)$$

Job satisfaction (SL*) is a latent variable that shows the individual's probability of being satisfied at work. This variable is not observable and, therefore, the subjective perceptions that individuals have about their work are used.

Job satisfaction is captured in the DANE-GEIH (DANE, 2022) through three questions: i) conformity with the job; ii) expressed desire to change jobs; and iii) conformity with the contract. We have taken the first of these as our dependent variable, since the second would be more related to job turnover, which is affected by other variables, and the third would be more related to a specific aspect of the job.

The possible existence of a self - selection bias, which would allow us to test the first of the explanations of the paradox, is considered using the two-stage model of Heckman (1979). In the first stage, the probability of belonging to the group of working people is calculated. The selection equation is specified as follows:

$$F_i = \alpha Y_i + \mu_i,$$

where Yi includes those variables that influence the participation of individual *i* in the labor market. In our case, we have considered household income once the individual´s labor income has been subtracted. It would be feasible that, if household income were high, because the individual has alternative income (from his or her spouse, for example), he or she would participate less in the labor market. We consider that, given Colombia's social and cultural patterns, this situation would be more applicable to women.

From this estimate, we obtain the inverse of Mill's ratio (Mo). In the second stage this ratio must be included in the estimation of job satisfaction to correct the bias. The contrast of the existence of the bias is done through rho (ϱ) = 0. In case there is no bias, a binomial Probit model without bias can be used.

We have also used, preliminarily, the Oaxaca-Blinder method to disaggregate the differences in the job satisfaction of men and women into two components: one that is attributable to the characteristics of the work performed by both sexes, and another associated with the component related to the valuation made of those characteristics (Blinder 1973; Oaxaca 1973).

The procedure consists of performing econometric estimations separately for men and women and obtaining the coefficients corresponding to the impact of personal and job characteristics (βF and βM). Subsequently, the following decomposition is calculated.

$$\overline{SL_M} - \overline{SL_F} = (\overline{X_M} - \overline{X_F})\hat{\beta}_M + (\overline{X_M})(\hat{\beta}_M - \hat{\beta}_F) \quad (4)$$

Differences in mean job satisfaction by gender would be attributable to two components, the one attributable to differences in observable characteristics associated with the job and sociodemographic conditions, so called explained component, $(\overline{X_M} - \overline{X_F})\hat{\beta}_M$, and that corresponding to the difference in the valuation of those characteristics, or unexplained component, $(\overline{X_M})(\hat{\beta}_M - \hat{\beta}_F)$.

In this specification of the model, a positive difference in the satisfaction gap plays in favor of men. Similarly, a positive difference in the determinants (the explained component) or the coefficients (the unexplained component) imply that the component contributes more to men satisfaction. The paradox of the contented female worker implies that the second unexplained component is negative and statistically significant.

Notice that the decomposition in (4) is formulated from the viewpoint of men (the group differences in the determinants are weighted by the coefficient vector estimated in the men´s regression). An alternative formulation of the model would be to use the coefficients in the women regression instead. We use a decomposition that has become more prominent in the literature based on so-called *non-discriminatory coefficient vectors.* Thus, we estimate:

$$\overline{SL_M} - \overline{SL_F} = (\overline{X_M} - \overline{X_F})\hat{\beta}^* + (\overline{X_M})\left(\hat{\beta}_M - \hat{\beta}^*\right) + (\overline{X_F})\left(\hat{\beta}^* - \hat{\beta}_F\right) \quad (5)$$

We follow Reimers (1983) suggestion to define the nondiscriminatory coefficients vector as

$$\hat{\beta}^* = 0.5\hat{\beta}_M + 0.5\hat{\beta}_F$$

We run this model using the Stata user-written algorithms for Probit regression and the Blinder-Oaxaca decomposition for linear regression models algorithm (Jan 2008).

3. Results

Women's job satisfaction, according to DANE-GEIH data (DANE, 2022) is slightly higher than that of men, as can be seen in Graph 1. This result is, to say the least, surprising since working conditions in terms of wage gap, segregation and discrimination are considerably more

unfavorable (Iodrovo and Leyva, 2014). Likewise, the percentage of women who wish to change jobs is slightly lower. That is, women seem to be more dissatisfied with their employment contracts than men, but despite this they seem to be more satisfied with the job in aggregate terms.

GRAPH 1

First round estimates of the Oaxaca-Blinder model using the data seem to lend support to the paradox of the *contented female worker*. As can be seen in Table 1, the explained component shows, with notable exceptions, that the mean labor determinants of job satisfaction of men are superior to those of women. The valuation women make of those determinants, however, is higher.

Table 1, Oaxaca Blinder Model for Job Satisfaction by Gender

jobsatisfaction	Coefficient	Std. err.	z	P>z	[95% conf.	interval]
overall						
group_1	0.8543	0.0009	916.6900	0.0000	0.8525	0.8561
group_2	0.8578	0.0011	805.9600	0.0000	0.8557	0.8599
difference	-0.0035	0.0014	-2.4700	0.0140	-0.0063	-0.0007
explained	0.0240	0.0010	24.0200	0.0000	0.0221	0.0260
unexplained	-0.0275	0.0016	-17.3100	0.0000	-0.0306	-0.0244
explained						
Activity	0.0033	0.0007	4.5300	0.0000	0.0019	0.0047
Hours	0.0025	0.0006	4.1000	0.0000	0.0013	0.0036
Position	-0.0014	0.0002	-7.3800	0.0000	-0.0017	-0.0010
Schooling	-0.0020	0.0004	-4.3900	0.0000	-0.0028	-0.0011
Agesegment	0.0011	0.0002	5.8200	0.0000	0.0007	0.0015
Couple	0.0049	0.0004	13.1300	0.0000	0.0041	0.0056
DSI	-0.0002	0.0000	-4.9800	0.0000	-0.0003	-0.0001
logincome	0.0170	0.0005	34.5000	0.0000	0.0160	0.0179
logingre_discri	-0.0011	0.0001	-9.7200	0.0000	-0.0013	-0.0009
unexplained						
Activity	0.0064	0.0041	1.5600	0.1190	-0.0016	0.0145
Hours	-0.0341	0.0058	-5.8800	0.0000	-0.0455	-0.0227
Position	-0.0286	0.0038	-7.4400	0.0000	-0.0361	-0.0211
Schooling	-0.0283	0.0053	-5.2900	0.0000	-0.0387	-0.0178
Agesegment	-0.0215	0.0031	-6.8500	0.0000	-0.0277	-0.0154

Couple	-0.0263	0.0020	-13.3200	0.0000	-0.0301	-0.0224
DSI	-0.0015	0.0007	-2.2500	0.0240	-0.0028	-0.0002
logincome	0.4703	0.0394	11.9400	0.0000	0.3931	0.5475
logpairincome	-0.0644	0.0253	-2.5400	0.0110	-0.1139	-0.0148
_cons	-0.2996	0.0347	-8.6300	0.0000	-0.3677	-0.2316

Source: Authors, based on DANE-GEIH (DANE 2022).

Next, we performed the estimations through a probit model with robust errors, in which the dependent variable takes values of 0 and 1(satisfied with job). The results show the marginal effects of this model. These results allow us to test the first hypothesis of the existence of a self - selection bias prior to labor market participation that would cause only the most satisfied women to participate in the labor market.

Table 2 shows the estimates of this model, using again the sample of the results have been obtained under a scenario where Heckman proof is unconclusive for self - selection bias. In view of this result, we assume that the existence of bias does not alter the significance of the female variable.

Table 2 Probit model for job satisfaction. Both genders.

	Delta-method					
	dy/dx	std. err.	z	P>z	[95% conf.interval]	
Activity						
Mining and extraction	0.0097	0.0100	0.9700	0.3330	-0.0099	0.0292
Manufacturing	0.0383	0.0032	11.9300	0.0000	0.0320	0.0446
Electricity, gas and water	-0.0161	0.0062	-2.5800	0.0100	-0.0283	-0.0039
Construction	-0.0189	0.0036	-5.2900	0.0000	-0.0259	-0.0119
Commerce, hotels and restaurants	0.0112	0.0028	3.9300	0.0000	0.0056	0.0168
Transportation, warehousing and communications	-0.0612	0.0035	-17.4900	0.0000	-0.0681	-0.0543
Finance, insurance, real estate, and business services	-0.0033	0.0035	-0.9400	0.3480	-0.0100	0.0035
Social community and personal services	0.0266	0.0031	8.6200	0.0000	0.0206	0.0327
Other	-0.0244	0.0097	-2.5200	0.0120	-0.0435	-0.0054
Gender	0.0098	0.0016	5.9900	0.0000	0.0066	0.0130
Hours	0.0001	0.0001	1.4100	0.1590	0.0000	0.0002

Position						
Laborer or government	0.0402	0.0039	10.2200	0.0000	0.0325	0.0479
Self-employed	-0.0344	0.0016	-21.2300	0.0000	-0.0376	-0.0312
Employer	0.0462	0.0045	10.2300	0.0000	0.0374	0.0551
Other	-0.0542	0.0420	-1.2900	0.1960	-0.1365	0.0280
Schooling						
Secondary School	-0.0066	0.0019	-3.4900	0.0000	-0.0104	-0.0029
Higher education	-0.0075	0.0023	-3.1900	0.0010	-0.0121	-0.0029
Age segment						
Between 30 and 40 years	0.0071	0.0020	3.4800	0.0010	0.0031	0.0111
Between 40 and 50 years	0.0291	0.0021	13.7400	0.0000	0.0249	0.0332
Between 50 and 60 years	0.0603	0.0021	28.2700	0.0000	0.0561	0.0645
More than 60 years	0.0983	0.0023	43.4600	0.0000	0.0938	0.1027
Couple	0.0106	0.0014	7.5300	0.0000	0.0078	0.0133
DSI	-0.0262	0.0018	-14.8100	0.0000	-0.0296	-0.0227
logincome	0.0648	0.0011	58.5600	0.0000	0.0626	0.0670
Logpairincome	0.0144	0.0008	17.4900	0.0000	0.0127	0.0160

Source: Authors, based on DANE-GEIH (DANE 2022).

Notice that the gender variable takes on a positive and significant value. Being a woman increases the probability of being satisfied in the workplace, in line with the work of Clark (1997) and those of Sloane and Williams (2000), Long (2005), Souza-Poza and Sousa-Poza (2000; 2007), Hauret and Williams (2017), Sánchez-Sánchez and Fernández (2019); Fernández and Sánchez-Sánchez (2021). This result corroborates, once again, the paradox of the contented female worker in the case of Colombia.

The model also allows other conclusions of interest to be drawn. As age increases, the level of job satisfaction increases and, in fact, in workers over 60 the probability increases by 0.1 percent. Having a partner also increases the likelihood of being satisfied. On the contrary, having dependent people decreases it. It would be interesting to distinguish the effects on job satisfaction of dependents, children, versus parents or other older relatives. Unfortunately, our database does not allow us to observe this distinction.

The increase in the level of education seems to reduce the level of job satisfaction and, in fact, workers with secondary and higher education are slightly less satisfied than those with primary basic education or no formal training at all. It must be taken into account, in any case, that a higher

educational level allows access to a higher hierarchical level and that this occupational level is already captured by other variables included in the analysis.

Next, we will refer to the characteristics of the job. Economic activities related to manufacturing, trade, hotels, and restaurants, and those related to social community and personal services increase the probability of being satisfied. In contrast, activities associated with electricity, gas and water, construction and transport, storage and communications reduce job satisfaction.

Regarding occupational position, and considering that the reference variable is conventional employees, employers and employers are the most likely to be satisfied, followed by workers or government employees. The workers least likely to be satisfied are the self-employed. This is not surprising given the precariousness of this type of employment in the Colombian economy, where particularly many female workers end up involuntarily.

Finally, and as might be expected, labor income has a positive and significant influence on job satisfaction. Working hours, however, have no statistical significance. It is feasible that both very short working hours, reflecting the impossibility of finding a full-time job, and several hours well above a conventional working day, cause a reduction in job satisfaction, and for that reason the variable loses significance.

Table 2 shows the probit model disaggregated by gender. In this regard, it is interesting to highlight the variable corresponding to having a partner. So, in the case of men, it has a negative impact, while in the case of women it is positive. Likewise, the impact of dependents seems to penalize to a greater extent the job satisfaction of men than of women. Both results would allow us to point to differences in the utility function by gender. Also noteworthy is the level of education, which in the case of women positively affects job satisfaction, at least higher education, while in the case of men it negatively affected. In terms of job characteristics, self-employment penalizes men more and earned income appears to have a greater impact on men's job satisfaction than women.

Table 3 Age comparison of job satisfaction

	Delta-method dy/dx	
	Under 30 years old	Over 30 years old
Activity		
Mining and extraction	-0.0085	0.0162
Manufacturing	0.0562**	0.0364 **
Electricity, gas and water	0.004	-0.0195**
Construction	-0.004	-0.0252**

Commerce, hotels and restaurants	0.0265**	0.0095**
Transportation, warehousing and communications	-0.0392**	-0.0705**
Finance, insurance, real estate, and business services	0.0264**	-0.0116**
Social community and personal services	0.0632**	0.0183**
Other	-0.0093	-0.0176
Gender	-0.0025	0.0101**
Hours	-0.0005**	0.0002**
Position		
Laborer or government	0.0449**	0.0533**
Self-employed	-0.0409**	-0.0252**
Employer	0.1037**	0.0488**
Other	-0.0024	-0.1416*
Schooling		
Secondary School	-0.0129**	-0.0221**
Higher education	-0.0102	-0.0324**
Couple	0.0013	0.0131**
DSI	-0.0316**	-0.0242**
logincome	0.0854**	0.056**
Logpairincome	0.0166**	0.0141**

* significative 90%; ** Significative 95%

Source: Authors, based on DANE-GEIH (DANE 2022).

Next, the estimates have been made by disaggregating the entire sample by age (under and over 30) and by level of education (higher education and lower levels). The purpose is to observe if in the case of younger and more educated people the paradox of the contented female worker disappears, as pointed out by Sloane and Ward (2001) and Green et al. 2017).

Table 3 shows the age-disaggregated estimates. As can be seen, the coefficient corresponding to gender is negative, but loses significance. It could therefore be said that in the case of younger working women the paradox disappears. Note that the positive impact of job satisfaction of having a partner also disappears. This seems intuitively correct to the extent that younger women might have higher expectations with regard their position in the labor market and personal life.

Table 4 shows the estimates disaggregated by educational level. As can be seen, in this case, the gender variable positively affects job satisfaction and is significant in both subsamples. It seems,

therefore, that it is not the educational level that causes a convergence between men and women, but the consideration of the younger population cohorts. Perhaps, the modification of social and cultural patterns over time is what causes women's expectations to be similar to those of men and that the gender variable ceases to be decisive to explain job satisfaction.

Table 4 Comparison by level of schooling

	Delta-method dy/dx	
	lower educational level (medium and low)	Higher education level (Prof/Technical and Technological)
Activity		
Mining and extraction	0.0013	0.0407**
Manufacturing	0.0435**	0.0389**
Electricity, gas and water	-0.0433023**	0.0498**
Construction	-0.0238**	0.0043
Commerce, hotels and restaurants	0.0103**	0.0256**
Transportation, warehousing and communications	-0.0774**	-0.0182
Finance, insurance, real estate, and business services	-0.0179**	0.0254*
Social community and personal services	0.0349**	0.0322**
Other	-0.0329**	0.00423
Gender	0.0081**	0.0084**
Hours	0.0001*	-0.0001
Position		
Laborer or government	0.0614**	0.0271**
Self-employed	-0.0285**	-0.0399**
Employer	0.0581**	0.0301**
Other	-0.0057	-0.0924
Age segment		
Between 30 and 40 years	0.0150**	-0.0021
Between 40 and 50 years	0.0431**	0.0085**
Between 50 and 60 years	0.0764**	0.0342**
More than 60 years	0.1187**	0.0612**
Couple	0.0125**	0.00788**
DSI	-0.0314**	-0.0148**

logincome	0.0675**	0.0601**
Logpairincome	0.0188**	0.0049**

Source: Authors, based DANE-GEIH (DANE 2022).

It should be noted that, before conducting the corresponding estimates for educational subgroups, we studied the intersection between the variable "higher education" and the age cohort corresponding to individuals under 30. In this regard, an increase in educational attainment is observed when considering younger population cohorts. For males over 30, the percentage of individuals with university studies is 25.27 percent, while for females, it is 37.47 percent. When considering individuals under 30 years of age, these percentages rise to 30.52 percent for males and 52.41 percent for females. Indeed, there is a clear increase in the educational level within the younger population cohorts, especially striking in the case of women.

However, based on the results of our estimations, it is not university studies themselves that explain the disappearance of the paradox, but rather other dynamics that would affect the entire society. In fact, in the older population cohorts, the average educational level of women is higher than that of men, at least among those workers who participate in the paid labour market. Perhaps, the modification of social and cultural patterns over time is what causes women's expectations to be similar to those of men and that the gender variable ceases to be decisive to explain job satisfaction. “

4. Conclusions

This paper analyzes the paradox of the contented female worker in the case of Colombia, using the Great Integrated Household Survey corresponding to 2021. The article tries to identify whether, despite the more unfavorable conditions of women in terms of access, job segregation, wage gap and discrimination, their job satisfaction is relatively higher, as is the case in some European and Anglo-Saxon countries. Additionally, it is contrasted whether this possible paradox would be present in younger population cohorts and those with a higher educational level. To the best of our knowledge, this is the first work to focus on a less developed country, and Colombia seems a particularly interesting case given the high records of economic inequality. The Global Gender Gap and labor market statistics tend to corroborate a high level of discrimination, leading to ask if the paradox of the contented female worker is valid in this country.

In our research we have controlled for the likely existence of self - selection bias that may exist prior to entering the labor market leading the most satisfied women to participate in the labor market. We have found evidence to support the possibility of different utility functions for men

and women, and evidence in support of the hypothesis of adaptive expectations that caused women to internalize their situation of relative disadvantage and their working conditions.

The descriptive study shows that women's levels of job satisfaction are slightly higher than those of men, despite their more severe working conditions. The Oaxaca-Blinder decomposition method shows how the working conditions of women (composed of the observed entity) are clearly inferior to those of men, however, the valuation they make of them (Component not explained) is higher, endorsing the hypothesis of the contented female worker and giving evidence to the adaptive expectations hypothesis.

Econometric estimates using the probit model with robust errors, both for the group of men and women, and to establish comparisons by age groups (under and over 30) and levels of schooling (low and high level of schooling), also support the paradox of the contented female worker. The results, once the self - selection bias has been corrected, show that the variable corresponding to being a working woman has a positive and significant effect on job satisfaction.

The results, once the sample is divided into men and women, also evidence differences in utility functions. The fact of having a partner affects the job satisfaction of women in a positive way and however, in a positive way, Likewise, the impact of dependents penalizes men to a greater extent than women. It is important highlight the importance of age ad schooling; we could find evidence about young woman has low levels of job satisfaction and we could find under 30 years old, for both women and men, gender is not a significant variable. Similarly, schooling is an interesting personal variable: When school level increases, aspects like hours in work or a couple loses importance.

When disaggregating the sample by educational levels (having or not having higher education) it is observed that the paradox is still present. However, when disaggregated by age (workers under and over 30 years of age) the paradox is diluted. It seems that the change in social and cultural patterns over time causes the expectations of men and women to be similar.

From the point of view of the implications of economic policy, our study highlights the need to consider the gender and working conditions of men and women when studying job satisfaction. Policies aimed at increasing job satisfaction should consider the possibility that the worker is internalizing the most unfavorable working conditions and his situation is worse than that manifested. It would also be necessary to consider policies for reconciling family and work life, since the variables associated with the couple and dependents seem to have a differential impact depending on gender.

In this aspect, in Colombia the law 581 / 2000 fixed a minimum lever of women contracts, for high levels on public jobs, but its effects have had low impact in items like economics, steam

professions between others. At the same time, in private organizations it is not a general policy to improve the number of contracted women. This situation limits the possibilities of access and representation in some of the most important issues of public administration and the nation in general.

Finally, in relation to the limitations of our analysis, our survey is not a panel and therefore we cannot consider individual effects over time. Likewise, we are aware that it would be necessary to study the economic, social, and cultural reasons that justify the differential impact of our independent variables. Possible extensions on the analysis are related with aspects like the geographic place, the public /private sector an economic policy to improve job participation of women.

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REFERENCES

- Appelbaum, S. and Kamal, R. (2001) An analysis of the utilization and effectiveness of non-financial incentives in small business. J*ournal of Management Development* 19(9): 733-763.
- Barrick, M. R. (2005). Yes, personality matters: Moving on to more important matters. Human Performance, 18(4), 359-372.
- Blinder, A. (1973). Wage Discrimination: Reduced Form and Structural Estimates. The Journal of Human Resources, Vol. 8, No. 4, pp. 436-455. https://www.jstor.org/stable/144855
- Borra, C., Gómez, F and Salas, M. (2007). Los determinantes de la satisfacción laboral de los economistas: evidencia a partir de una nueva muestra. *Economic Working Papers* E2007/02 Centro de Estudios Andaluces.
- Bourguignon, F. (2004). The Poverty-growth-inequality triangle, Working Paper, No. 125, Indian Council for Research on International Economic Relations (ICRIER), New Delhi
- Carleton, C. and Clain S. (2012). Women, Men, and Job Satisfaction. *Eastern Economic Journal,* 38 (Summer), 331–355.
- Clark, A. (1997). "Job satisfaction and gender why are women so happy at work?", *Labour Economics,* 4: 341-72.
- Crosby, F. (1982). *Relative Deprivation and Working Women*, New York: Oxford University Press.

- DANE (2022). Gran Encuesta Integrada de Hogares - GEIH – 2022.
- Dierdorff, E. and Morgeson, F. (2013). Getting what the occupation gives: Exploring multilevel links between work design and occupational values. Personnel Psychology, 66(3), 687-721.
- Donohue S. and Heywood J. (2004). Job satisfaction and gender: an expanded specification from the NLSY. *International Journal of Manpower,* 25(2), 211-234.
- Duncan, G. and Corcoran, M. (1984). Do Women 'Deserve' to Earn Less Than Men? In *Years of Poverty, Years of Plenty*, edited by G. Duncan, R. Coe, M. Corcoran, M. Hill, S. Hoffman, and J. Morgan, University of Michigan, Institute for Social Research (pp.153-172).
- Ellickson, M. and Logsdon, K. (2001), "Determinants of job satisfaction of municipal government employees", *State and Local Government Review*, 33, 173-184
- England, P. and McCreary, L. (1987). Gender Inequality in Paid Employment. In *Analyzing Gender*, edited by Beth B. Hess and M. M. Ferree, Newbury Park, CA. Sage (pp. 286-320).
- Fernández, A., Sánchez-Sánchez, N. (2021). How Gender-Based Disparities affect Women's Job Satisfaction? Evidence from Euro-Area. *Soc Indic Res* **156**, 137–165 (2021). https://doi.org/10.1007/s11205-021-02647-1
- Green C., Heywood J. Kler P. and Leeves G. (2017). Paradox Lost: Disappearing Female Job Satisfaction. *Economic Working Paper Series of Lancaster University Management School* 002.
- Hackman, J., and Oldham, G. (1975) Development of the job diagnostic survey. *Journal of Applied Psychology* 60: 159-170.
- Hauret, L. and Williams, D. (2017). Cross-National Analysis of Gender Differences in Job Satisfaction. Industrial Relations, 56(2), 203-235
- Hausknecht, J., Hiller, N. and Vance, R. (2008) Work-Unit Absenteeism: Effects of Satisfaction, Commitment, Labour Market Conditions and Time. *Academy of Management Journal* 51(6): 1125-1245.
- Heckman, J. (1979). Sample selection bias as a specification error. Econometrica: Journal of the econometric society, 153-161.
- Hodson, R. (1989). Gender Differences in Job Satisfaction: Why Aren't Women More Dissatisfied? *Sociological Quarterly,* 30(September), 385–99.
- Hom, P. and Griffeth, R. (1995). *Employee Turnover*, Cincinnati: South-western Publishing.
- Iaffaldano, M. and Muchinsky, P. (1985) Job satisfaction and job performance: A meta-analysis. *Psychological Bulletin* 97(2): 251-273.

- Idrovo, C. and Leyva, T. (2014). Éxito y satisfacción laboral y personal: Cómo lo perciben mujeres que trabajan en Bogotá. Pensamiento & gestión, (36), 155-183.
- Jan, B. (2008). The Blinder-Oaxaca decomposition for linear regression models. The Stata Journal 8(4): 453-479.
- Judge, T., Thoresen, C., Bono, J. and Patton, G. (2001). The Job Satisfaction-Job Performance Relationship: A Qualitative and Quantitative Review. *Psychological Bulletin* May: 376-407.
- Kanter, R. (1977). *Men and Women of the Corporation*. New York: Basic
- Lee, T. (1998) Job satisfaction leads to turnover. *Journal of Business and Psychology* 2(3): 263-271.
- Locke, E. (1976), "The nature and causes of job satisfaction", in M. Dunette (Ed.), *Handbook of Industrial and Organizational Psychology*, Chicago: Rand McNally, 1297-1349.
- Long, J. (2005). The Effects of Tastes and Motivation on Individual Income. *Industrial and Labor Relations,* 48(2), 338-351.
- Luo, Y. (2016). Gender and Job Satisfaction in Urban China: The Role of Individual, Family, and Job Characteristics. Social Indicators Research, 125, 289-309.
- Madden, J. (1985). The Persistence of Pay Differentials: The Economics of Sex Discrimination. In *Women and Work*, Vol. 1, edited by L. Larwood, A. H. Stromberg, and B. A. Gutek.,Beverly Hills, Sage (pp.76-114).
- Oaxaca, R. (1973). Male-Female Wage Differentials in Urban Labor Markets. International Economic Review, Vol. 14, No. 3, pp. 693-709. https://www.jstor.org/stable/2525981
- Reimers, C. (1983). Labor Market Discrimination Against Hispanic and Black Men. The Review of Economics and Statistics 65: 570–579.
- Sánchez-Sánchez, N. and Fernández, A. (2019). Is Women's Job Satisfaction Higher than Men's? Self-Selection, Expectations or Utility Function. *Acta Oeconomica*, *69*(2), 161-189.
- Sloane P. and Ward M. (2001). Cohort effects and job satisfaction of academics. *Applied Economics Letters,* 8, 787-791.
- Sloane, P. and Williams, H. (2000). Job satisfaction, comparison earnings and gender. *Labour,* 14(3), 473-501.
- Smith, P., Kendall, L. and Hulin, C. (1969), *The measurement of satisfaction in work and retirement*, Chicago, IL: Rand McNally.
- Sousa-Poza, A. and Sousa-Poza, A. (2000). Taking another look at the gender/job satisfaction paradox. *Kyklos,* 53, 135-52.

- Souza-Poza A, and Sousa-Poza A. (2007). The effect of job satisfaction on labour turnover by gender: An analysis for Switzerland. *The Journal of Socio-Economic,* 36, 895-913.
- Tenjo, J., and Idárraga, P. (2009). *Dos ensayos sobre discriminación: discriminación salarial y discriminación en acceso al empleo por origen étnico y por género*. Pontificia Universidad Javeriana.
- Tietjen, M. and Myers, R. (1998) Motivation and Job satisfaction. *Management Decision* 36(4): 226-231.
- World Economic Forum (WEF) (2022) Global Gender Report 2022.

Annexes

Variable	Description
Organizational and contextual factors	
Activity	Variable taking the following values: 1: Agriculture, hunting, forestry and fishing; 2: Mining and extraction 3: Manufacturing 4: Electricity, gas and water 5: Construction 6: Commerce, hotels and restaurants 7: Transportation, warehousing and communications 8: Finance, insurance, real estate, and business services 9: Social community and personal services 10: Other
Hours	Continuous variable indicating the weekly hours spent by the respondent at work normally
Position	Categorical variable that takes different values:

	1: Conventional employee 2: Laborer or government employee 3: Self-employed 4: Employer 5: Other type.
Personal Conditions	
Agesegment	Categorical variable that takes different values based on age: 1: Equal to or less than 30 years 2: Between 30 and 40 years 3: Between 40 and 50 years 4: Between 50 and 60 years 5: More than 60 years
Gender	A binary variable that takes two values: 1 is female 0 otherwise
Couple	A binary variable that takes two values: 0 has no partner 1 otherwise
Schooling	Categorical variable that takes different values based on educational level. educational level: 1: Primary basic or none 2: Secondary school 3: Higher education
DSI	It is a dummy variable for those who have dependents 1 for if, 0 otherwise.
Logarithm for:	
logincome	Logarithm of the monthly income of the Surveyed by concept of work activities.
Logpairincome	Logarithm to the difference between family income and women's income. It IS a proxy variable to the couple's income.

Number of the Variable	Average		Standard deviation	
	Men	Women	Men	Women
Satisfaction	0.8544113	0.8580175	0.3526946	0.3490338
Organizational and contextual factors				
activity	5.635605	6.942661	2.428722	2.10445
Hours	48.13503	41.2355	12.58743	14.867
Position	2.165008	2.028124	1.009167	0.994623
Personal Conditions				

Agesegment	2.547954	2.514673	1.336678	1.267043
Gender				
Couple	0.623742	0.4582933	0.4844477	0.4982598
Schooling	2.029275	2.256661	0.7112671	0.7138425
DSI	0.1655982	0.1560447	0.3717209	0.3628994
Logaritmo para:				
logincome	13.62045	13.3584	0.7938072	1.065425
Logpairincome	13.67203	13.3584	0.9307309	1.065425

Blinder-Oaxaca decomposition

Number of obs = 250,530

Model = probit

N of obs 1 = 143378

Group 1: Gender = 0

Group 2: Gender = 1

N of obs 2 = 10715

Satisfaction	Coefficient	Std. err.	z	P>z	[95% conf. interval]	
overall						
group_1	0.8543216	0.000932	916.69	0.0000	0.852495	0.8561483
group_2	0.8578159	0.0010643	805.96	0.0000	0.8557299	0.859902
difference	-0.0034943	0.0014147	-2.47	0.0140	-0.0062671	-0.0007215
explained	0.0240358	0.0010005	24.02	0.0000	0.0220749	0.0259968
unexplained	-0.0275301	0.0015901	-17.31	0.0000	-0.0306466	-0.0244136
explained						
Activity	0.0033022	0.0007297	4.53	0.0000	0.0018721	0.0047323
Hours	0.0024607	0.0006001	4.1	0.0000	0.0012845	0.0036369
Position	-0.0013569	0.0001839	-7.38	0.0000	-0.0017174	-0.0009964
Schooling	-0.0019559	0.000446	-4.39	0.0000	-0.00283	-0.0010817
Agesegment	0.0010903	0.0001873	5.82	0.0000	0.0007232	0.0014573
Couple	0.0048502	0.0003694	13.13	0.0000	0.0041262	0.0055741

DSI	-0.0002364	0.0000475	-4.98	0.0000	-0.0003295	-0.0001434
logincome	0.0169523	0.0004914	34.5	0.0000	0.0159891	0.0179155
Logpairincome	-0.0010706	0.0001101	-9.72	0.0000	-0.0012864	-0.0008548
unexplained						
Activity	0.0064148	0.0041138	1.56	0.1190	-0.0016482	0.0144777
Hours	-0.0340967	0.0057972	-5.88	0.0000	-0.0454591	-0.0227343
Position	-0.0285845	0.0038418	-7.44	0.0000	-0.0361143	-0.0210547
Schooling	-0.0282659	0.0053456	-5.29	0.0000	-0.0387431	-0.0177887
Agesegment	-0.021527	0.0031446	-6.85	0.0000	-0.0276902	-0.0153637
Couple	-0.0262744	0.0019725	-13.32	0.0000	-0.0301404	-0.0224083
DSI	-0.0015207	0.0006748	-2.25	0.0240	-0.0028432	-0.0001982
Logincome	0.4703017	0.0393755	11.94	0.0000	0.393127	0.5474763
Logpairincome	-0.0643519	0.0253042	-2.54	0.0110	-0.1139472	-0.0147567
_cons	-0.2996255	0.0347123	-8.63	0.0000	-0.3676604	-0.2315905

Source: Authors, based on GEIH 2021.

Probit men and women together

	Delta-method					
	dy/dx	std. err.	z	P>z	[95% conf.interval]	
Activity						
Mining and extraction	0.0097	0.0100	0.9700	0.3330	-0.0099	0.0292
Manufacturing	0.0383	0.0032	11.9300	0.0000	0.0320	0.0446
Electricity, gas and water	-0.0161	0.0062	-2.5800	0.0100	-0.0283	-0.0039
Construction	-0.0189	0.0036	-5.2900	0.0000	-0.0259	-0.0119
Commerce, hotels and restaurants	0.0112	0.0028	3.9300	0.0000	0.0056	0.0168

Transportation, warehousing and communications	-0.0612	0.0035	-17.4900	0.0000	-0.0681	-0.0543
Finance, insurance, real estate, and business services	-0.0033	0.0035	-0.9400	0.3480	-0.0100	0.0035
Social community and personal services	0.0266	0.0031	8.6200	0.0000	0.0206	0.0327
Other	-0.0244	0.0097	-2.5200	0.0120	-0.0435	-0.0054
Gender	0.0098	0.0016	5.9900	0.0000	0.0066	0.0130
Hours	0.0001	0.0001	1.4100	0.1590	0.0000	0.0002
Position						
Laborer or government	0.0402	0.0039	10.2200	0.0000	0.0325	0.0479
Self-employed	-0.0344	0.0016	-21.2300	0.0000	-0.0376	-0.0312
Employer	0.0462	0.0045	10.2300	0.0000	0.0374	0.0551
Other	-0.0542	0.0420	-1.2900	0.1960	-0.1365	0.0280
Schooling						
Secondary School	-0.0066	0.0019	-3.4900	0.0000	-0.0104	-0.0029
Higher education	-0.0075	0.0023	-3.1900	0.0010	-0.0121	-0.0029
Agesegment						
Between 30 and 40 years	0.0071	0.0020	3.4800	0.0010	0.0031	0.0111
Between 40 and 50 years	0.0291	0.0021	13.7400	0.0000	0.0249	0.0332
Between 50 and 60 years	0.0603	0.0021	28.2700	0.0000	0.0561	0.0645
More than 60 years	0.0983	0.0023	43.4600	0.0000	0.0938	0.1027
Couple	0.0106	0.0014	7.5300	0.0000	0.0078	0.0133
DSI	-0.0262	0.0018	-14.8100	0.0000	-0.0296	-0.0227
logincome	0.0648	0.0011	58.5600	0.0000	0.0626	0.0670
Logpairincome	0.0144	0.0008	17.4900	0.0000	0.0127	0.0160

Source: Authors, based on GEIH 2021.

Comparation Probit men and women

	Men		Women	
	Delta-method		Delta-method	
	dy/dx	P>z	dy/dx	P>z
Activity				
Mining and extraction	-0.0009	0.941	0.0055	0.807

Manufacturing	0.0312	0.000	0.0167	0.016
Electricity, gas and water	-0.0167	0.022	-0.0387	0.003
Construction	-0.0200	0.000	0.0017	0.887
Commerce, hotels and restaurants	0.0125	0.000	-0.0213	0.001
Transportation, warehousing and communications	-0.0629	0.000	-0.0243	0.008
Finance, insurance, real estate, and business services	0.0215	0.000	-0.0498	0.000
Social community and personal services	0.0347	0.000	-0.0015	0.821
Other	-0.0145	0.356	-0.0549	0.000
Hours	0.0000	0.852	0.0004	0.000
Position				
Laborer or government	0.0292	0.000	0.0468	0.000
Self-employed	-0.0412	0.000	-0.0180	0.000
Employer	0.0435	0.000	0.0451	0.000
Other	-0.0037	0.936	-0.0872	0.142
Schooling				
Secondary School	-0.0120	0.000	-0.0007	0.818
Higher education	-0.0251	0.000	0.0072	0.050
Age segment				
Between 30 and 40 years	0.0088	0.001	0.0042	0.180
Between 40 and 50 years	0.0287	0.000	0.0304	0.000
Between 50 and 60 years	0.0528	0.000	0.0713	0.000
More than 60 years	0.0895	0.000	0.1161	0.000
Couple	-0.0067	0.001	0.0284	0.000
DSI	-0.0278	0.000	-0.0212	0.000
logincome	0.0837	0.000	0.0545	0.000
Logpairincome	0.0096	0.000	0.0147	0.000

Source: Authors, based on GEIH 2021.

Probit under 30

	Delta-method				
	dy/dx	std. err.	z	P>z	[95% conf. interval]

Activity						
Mining and extraction	-0.0085	0.0216	-0.400	0.692	-0.051	0.034
Manufacturing	0.0562	0.0069	8.130	0.000	0.043	0.070
Electricity, gas and water	0.0040	0.0132	0.300	0.760	-0.022	0.030
Construction	-0.0040	0.0076	-0.530	0.596	-0.019	0.011
Commerce, hotels and restaurants	0.0266	0.0061	4.350	0.000	0.015	0.039
Transportation, warehousing and communications	-0.0392	0.0072	-5.430	0.000	-0.053	-0.025
Finance, insurance, real estate, and business services	0.0265	0.0074	3.580	0.000	0.012	0.041
Social community and personal services	0.0632	0.0065	9.670	0.000	0.050	0.076
Other	-0.0093	0.0195	-0.480	0.633	-0.047	0.029
Gender	-0.0025	0.0032	-0.770	0.441	-0.009	0.004
Hours	-0.0006	0.0001	-4.610	0.000	-0.001	0.000
Position						
Laborer or goverment	0.0449	0.0116	3.880	0.000	0.022	0.068
Self-employed	-0.0409	0.0033	-12.440	0.000	-0.047	-0.034
Employer	0.1038	0.0118	8.800	0.000	0.081	0.127
Other	-0.0024	0.0546	-0.040	0.965	-0.109	0.105
Schooling						
Secondary School	-0.0130	0.0056	-2.330	0.020	-0.024	-0.002
Higher education	-0.0102	0.0061	-1.680	0.093	-0.022	0.002
Couple	0.0013	0.0028	0.460	0.644	-0.004	0.007
DSI	-0.0316	0.0035	-8.990	0.000	-0.039	-0.025
logincome	0.0854	0.0023	37.210	0.000	0.081	0.090
Logpairincome	0.0166	0.0017	9.9200	0.0000	0.0133	0.0199

Source: Authors, based on GEIH 2021.

Probit over 30

	Delta-method					
	dy/dx	std. err.	z	P>z	[95% conf.	interval]
Activity						
Mining and extraction	0.0162	0.0113	1.4400	0.1500	-0.0059	0.0384

Manufacturing	0.0364	0.0036	10.1500	0.0000	0.0294	0.0435
Electricity, gas and water	-0.0195	0.0070	-2.7900	0.0050	-0.0332	-0.0058
Construction	-0.0252	0.0041	-6.2100	0.0000	-0.0332	-0.0172
Commerce, hotels and restaurants	0.0096	0.0032	3.0000	0.0030	0.0033	0.0159
Transportation, warehousing and communications	-0.0706	0.0040	-17.4800	0.0000	-0.0785	-0.0627
Finance, insurance, real estate, and business services	-0.0116	0.0039	-2.9800	0.0030	-0.0193	-0.0040
Social community and personal services	0.0183	0.0035	5.2500	0.0000	0.0115	0.0251
Other	-0.0176	0.0109	-1.6200	0.1050	-0.0389	0.0037
Gender	0.0100	0.0019	5.2100	0.0000	0.0063	0.0138
Hours	0.0002	0.0001	2.7500	0.0060	0.0001	0.0003
Position						
Laborer or government	0.0533	0.0036	14.9600	0.0000	0.0463	0.0603
Self-employed	-0.0253	0.0019	-13.4100	0.0000	-0.0290	-0.0216
Employer	0.0488	0.0043	11.3600	0.0000	0.0404	0.0572
Other	-0.1416	0.0747	-1.9000	0.0580	-0.2880	0.0048
Schooling						
Secondary School	-0.0221	0.0018	-12.0500	0.0000	-0.0257	-0.0185
Higher education	-0.0324	0.0025	-13.0500	0.0000	-0.0372	-0.0275
Couple	0.0131	0.0016	8.0800	0.0000	0.0099	0.0162
DSI	-0.0242	0.0020	-11.8400	0.0000	-0.0282	-0.0202
logincome	0.0556	0.0013	44.4700	0.0000	0.0532	0.0581
Logpairincome	0.0141	0.0009	14.9900	0.0000	0.0122	0.0159

Source: Authors, based on GEIH 2021.

Higher education level

	Delta	method				
	dy/dx	std. err.	z	P>z	[95% conf.	interval]
Activity						
Mining and extraction	0.0407	0.0182	2.2400	0.0250	0.0051	0.0762
Manufacturing	0.0390	0.0100	3.8900	0.0000	0.0193	0.0586
Electricity, gas and water	0.0498	0.0124	4.0100	0.0000	0.0255	0.0741

Construction	0.0043	0.0108	0.4000	0.6920	-0.0169	0.0255
Commerce, hotels and restaurants	0.0256	0.0097	2.6500	0.0080	0.0067	0.0446
Transportation, warehousing and communications	-0.0182	0.0103	-1.7700	0.0770	-0.0383	0.0020
Finance, insurance, real estate, and business services	0.0254	0.0099	2.5700	0.0100	0.0060	0.0447
Social community and personal services	0.0322	0.0097	3.3300	0.0010	0.0132	0.0511
Other	0.0043	0.0179	0.2400	0.8120	-0.0308	0.0393
Gender	0.0084	0.0022	3.8400	0.0000	0.0041	0.0127
Hours	-0.0001	0.0001	-0.8500	0.3940	-0.0003	0.0001
Position						
Laborer or government	0.0271	0.0037	7.2500	0.0000	0.0198	0.0344
Self-employed	-0.0399	0.0026	-15.5000	0.0000	-0.0450	-0.0349
Employer	0.0300	0.0063	4.7500	0.0000	0.0176	0.0424
Other	-0.0924	0.0566	-1.6300	0.1030	-0.2033	0.0186
Agesegment						
Between 30 and 40 years	-0.0020	0.0027	-0.7600	0.4460	-0.0073	0.0032
Between 40 and 50 years	0.0085	0.0031	2.7700	0.0060	0.0025	0.0145
Between 50 and 60 years	0.0343	0.0034	10.1200	0.0000	0.0276	0.0409
More than 60 years	0.0612	0.0043	14.2700	0.0000	0.0528	0.0696
Couple	0.0079	0.0021	3.7000	0.0000	0.0037	0.0121
DSI	-0.0148	0.0028	-5.3300	0.0000	-0.0202	-0.0093
logincome	0.0601	0.0016	36.4500	0.0000	0.0569	0.0633
Logpairincome	0.0049	0.0013	3.7500	0.0000	0.0023	0.0075

Source: Authors, based on GEIH 2021.

Probit lower education

	Delta-method					
	dy/dx	std. err.	z	P>z	[95% conf.	interval]
Activity						
Mining and extraction	0.0013	0.0126	0.1100	0.9160	-0.0234	0.0261

Manufacturing	0.0435	0.0037	11.8600	0.0000	0.0363	0.0507
Electricity, gas and water	-0.0433	0.0081	-5.3500	0.0000	-0.0592	-0.0274
Construction	-0.0238	0.0041	-5.8600	0.0000	-0.0318	-0.0159
Commerce, hotels and restaurants	0.0103	0.0032	3.2400	0.0010	0.0041	0.0166
Transportation, warehousing and communications	-0.0774	0.0041	-18.9800	0.0000	-0.0854	-0.0694
Finance, insurance, real estate, and business services	-0.0179	0.0043	-4.1300	0.0000	-0.0264	-0.0094
Social community and personal services	0.0350	0.0036	9.6500	0.0000	0.0279	0.0421
Other	-0.0329	0.0122	-2.7100	0.0070	-0.0568	-0.0091
Gender	0.0081	0.0023	3.5800	0.0000	0.0037	0.0125
Hours	0.0001	0.0001	1.9400	0.0520	0.0000	0.0003
Position						
Laborer or government	0.0614	0.0089	6.8800	0.0000	0.0439	0.0789
Self-employed	-0.0285	0.0021	-13.6700	0.0000	-0.0326	-0.0244
Employer	0.0581	0.0060	9.6000	0.0000	0.0462	0.0699
Other	-0.0057	0.0561	-0.1000	0.9190	-0.1157	0.1043
Agesegment						
Between 30 and 40 years	0.0150	0.0028	5.3700	0.0000	0.0095	0.0205
Between 40 and 50 years	0.0430	0.0027	15.6700	0.0000	0.0376	0.0484
Between 50 and 60 years	0.0764	0.0027	28.5700	0.0000	0.0711	0.0816
More than 60 years	0.1187	0.0028	42.9900	0.0000	0.1132	0.1241
Couple	0.0125	0.0018	6.8800	0.0000	0.0089	0.0160
DSI	-0.0314	0.0023	-13.9200	0.0000	-0.0359	-0.0270
logincome	0.0675	0.0014	46.5700	0.0000	0.0646	0.0703
Logpairincome	0.0188	0.0010	17.9400	0.0000	0.0167	0.0208

Source: Authors, based on GEIH 2021.