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# Financial Inclusion of Business Owners Who Survived the COVID-19 Pandemic in Guadalajara, Monterrey, and Mexico City

## *Inclusión financiera de los empresarios que sobrevivieron a la pandemia de COVID-19 en Guadalajara, Monterrey y la Ciudad de México*

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## Abstract

*This paper analyzes the marginal effect of different socioeconomic variables on the conditional probability that a business owner presents some degree of financial inclusion. A face-to-face survey with business owners who survived COVID-19 in Guadalajara, Monterrey, and Mexico City—including their metropolitan areas—was used as a source of information. The sample size consists of 1217 interviews applied in the year 2023. Linear probability, logit, probit, and robit models were used to establish a comparative framework for the results. The findings allow us to suggest strategies to promote financial inclusion of business owners in Mexico.*

**Keywords:** financial inclusion, probit, logit, robit, COVID-19.

**JEL Classification:** G20, G14, G18, G21.

## Resumen

*En este artículo se analiza el efecto marginal de diversas variables socioeconómicas sobre la probabilidad condicional de que un propietario de negocio presente algún grado de inclusión financiera. Como fuente de información se utilizó una encuesta realizada cara a cara a los propietarios de negocio, que sobrevivieron a la COVID-19 en las ciudades de Guadalajara, Monterrey y Ciudad de México con su área metropolitana. El tamaño de la muestra consta de 1217 entrevistas aplicadas en el año 2023. Se utilizaron los modelos de probabilidad lineal, logit, probit y robit para establecer un marco comparativo en los resultados. Los hallazgos permiten sugerir estrategias para promover la inclusión financiera de los propietarios de negocio en México.*

**Palabras clave:** inclusión financiera, probit, logit, robit, COVID-19.

**Clasificación JEL:** G20, G14, G18, G21.

# 1. Introduction

In Mexico, financial inclusion refers to access to and use of formal financial services. Specifically, under the regulation of the Comisión Nacional Bancaria y de Valores (CNBV, acronym in Spanish)— National Banking and Securities Commission—(CNBV, 2024), financial inclusion addresses four essential components: access, use, user protection, and financial education.

In the case of business owners, the aim is to facilitate access, whether through public or private initiatives, to various financial services. This point is important because the main way the development of the financial system impacts a country's economic growth is through the financial inclusion of businesses (OECD, 2018). In fact, according to Ayyagari et al. (2016), financing has a more substantial impact on employment levels in small and medium-sized companies compared to the effects observed in large companies.

In Mexico, by the end of 2024, 95% of companies are Micro, Small, and Medium-sized Enterprises (MSMEs)—micro (53%), small (35%), medium (7%)—and 5% are large businesses. In this context, small and medium-sized companies alone contribute 42% of the gross domestic product (GDP) and generate 68% of national jobs, boosting local production and development (Inegi, 2021).

Historically, small, micro, and medium-sized enterprises have turned to the banking sector for financing and often face disadvantages compared to large companies due to—among other factors—high transaction costs, corporate governance management, and information asymmetries. Furthermore, the three basic financial planning actions are preparing sales and profitability forecasts, establishing long-term goals, and borrowing strategies. Only half the companies carry out these actions (Inegi, 2021).

The above-mentioned factors make it clear that the degree of financial inclusion can be a key element in the business development of business owners. Therefore, the context of organizations and their specific characteristics can help explain the extent of financial inclusion, or at least the likelihood of access, usage, user protection, and financial education for small, medium, and micro businesses in Mexico.

This document aims to estimate the extent to which the sociodemographic characteristics of business owners influence the level of financial inclusion among organizations. To achieve this, it analyzes data from 1217 interviews conducted with

company owners in 2023. The geographic coverage includes the cities of Guadalajara, Mexico City, and Monterrey, including their respective metropolitan areas.

The effect of each characteristic collected from business owners is measured by estimating four probability models. The objective is to compare the various specifications: logit, robit, probit, and classical linear regression.

This article is structured as follows: After the introductory section, there is a literature review on the degree of financial inclusion in Mexico and its relationship with the economic activity of SMEs, followed by a description of the methodology. Later, the results obtained under the statistical models are presented and discussed. The study ends with conclusions.

## 2. Literature Review

Financial inclusion promotes the integration of individuals and corporations into the financial system. This integration covers credit, savings, insurance, payment methods, and access to all types of financial services available in the market (Trejo García et al., 2024).

In the case of business owners in Mexico, the aim is to expand their integration into the financial sector to prolong their survival cycle and contribute to social development. Given that the degree of financial inclusion has a multidimensional character, it must be addressed from various angles since the possibility of accessing and using formal products and services from the financial sector does not exhaust the concept of financial inclusion. The degree of adaptation of the product or service to the needs of the user must be added, which implies considering the diversity, regulation and supervision of financial instruments without neglecting the protection of the individual or legal entity (Cipoletta & Matos, 2018).

The effects of the integration of business owners into the financial system constitute a stylized fact of economic development, and empirical evidence exists throughout emerging countries. For example, in the case of Mexico, positive evidence has been found on the effects of expanding access to credit in micro, small, and medium-sized businesses through FIRA—Trusts Funds for Rural Development—. Such intervention in business units led to an increase in sales between 37% and 46%, compared to other similar economic units that did not have access to financing (Lara Álvarez, 2022).

In this sense, Ortiz-Gregorio et al. (2023) find that the lack of financial inclusion is greater for women business owners. Specifically, financial inclusion in Mexican microentrepreneurs whose companies are 5 years old or older shows a gender gap regarding business owners, although this difference is increasingly smaller. They obtained this result by applying a questionnaire to 10,729 women microentrepreneurs in a convenience sample. Furthermore, López Rodríguez (2021) finds that the most significant differences occur in Mexico's central and northern regions and urban areas.

In this regard, the lack of financial penetration in Latin American countries and the local distortion in the provision of financial services partially explains the low level of financial inclusion among business owners (Roa & Carvallo, 2018). At this point, the role of banking and government is crucial, although the effect of the above-mentioned actors can be enhanced by technological change. Góngora et al. (2023) find that increased financial inclusion of people, including business owners, is related to increased technological access points. The study of these authors focuses on the analysis and impact of digital technological channels, and they do not consider traditional channels. However, it does take into account the relevance of digitalization in business units.

According to Demirgüç-Kunt et al. (2018), digitalization in any of its areas is one of the best alternatives to increase financial inclusion in emerging countries. The number of people with smartphones and access to mobile internet has increased in recent years. The affordability of mobile phones and the expansion of coverage have boosted regional financial inclusion in various countries. The explanation for this effect is related to the ability to open bank accounts and access other financial services through smartphones, making these services more accessible and readily available.

Likewise, the set of sociodemographic and geographic characteristics that individuals and business units possess affect the level of financial inclusion that business owners can achieve. Peña et al. (2014) explore the factors determining financial inclusion in Mexico from the demand function side. To do so, they use the 2012 Encuesta Nacional de Inclusion Financiera—National Survey of Financial Inclusion (ENIF, its acronym in Spanish), and the statistical technique of multiple correspondences, taking into account the ownership of credit and savings products. That is, they consider banking access and the joint ownership of formal financial services and products.

The results presented by Peña et al. (2014) indicate that the level of education is one of the most relevant determinants to explain financial inclusion. Gender is another

significant variable, with women exhibiting a lower participation in the financial system. Likewise, the level of income has a positive relationship with the level of financial inclusion. The indicators related to the supply of financial services did not yield conclusive results, although the number of bank branches in each state stands out for its preponderant role.

Similarly, Gaxiola et al. (2020) analyzed the effect of different socioeconomic variables on the degree of financial inclusion. The authors used a robust linear probability model and the classic logit and probit probability specifications to estimate a person's conditional probability of having one or more financial instruments. The data set used was the National Survey of Financial Inclusion (ENIF) for 2012 and 2015. There is evidence of a positive impact attributable to foreign remittances, education level, and wage income.

Regarding the spatial effect of geographic areas, Pérez-Akaki and Fonseca (2017) analyzed the importance of financial inclusion and its relationship with poverty at the municipal level in Mexico in 2010. The main conclusion of this document lies in the use of spatial econometrics to relate the municipal-level variables, finding evidence of a positive causal relationship between financial inclusion and municipal poverty, which is more robust when spatial control variables are incorporated.

In this sense, Gaxiola et al. (2019) estimate a financial inclusion index that classifies the different municipalities of Mexico according to their degree of access and use of banking services. The information set covers the years 2013 to 2016 and corresponds to the databases of the CNBV. Based on the proposed index, the level of financial inclusion was measured to recommend local and regional policies at the municipal level that promote the use, access, and dispersion of banking instruments. Under this same context, Salazar et al. (2017) prove through two municipal financial inclusion constructs that there is a robust and positive relationship between financial inclusion and social cohesion in the municipalities of Mexico.

Previously, Zulaica Piñeyro (2013) had proposed a municipal financial inclusion index using variables that captured access to and use of financial services, financial education, consumer protection, and social development. This indicator was obtained through a principal component analysis. Municipalities were classified according to their degree of financial inclusion using a hierarchical cluster analysis. In that case, like Salazar et al. (2017) and Gaxiola et al. (2019), a measurement scale was sought to recommend public policy measures that would contribute to financial inclusion.

By combining the results of the previously discussed articles, we have the context to study how the sociodemographic characteristics of business owners influence the conditional probability of having some degree of financial inclusion.

The following section briefly describes the probability specifications for analyzing the degree of inclusion of business owners based on the information available in the 1217 interviews with business owners in 2023 in Mexico City, Guadalajara, and Monterrey.

### 3. Methodology

This section describes the set of procedures carried out to meet the research objective of this work. Four specifications are estimated, corresponding to the linear probability model (LPM), the probit model (normit), the logit model, and the robit model.

In this type of specification, the dependent variable is binary. Likewise, the probability is determined by a cumulative probability distribution  $F(u)$ , the standard normal distribution for the probit case, the t-Student distribution for the robit model, and the logistic distribution for the logit case (Liu, 2004).

Specifically,

$$P[Y = 1|X] = F(X\beta) \quad (1)$$

Where  $X$  is a vector of explanatory variables, and  $\beta$  is a vector of unknown parameters. In fact, the linear combination  $Y = X\beta + u$  is associated with the multiple linear regression model that allows to directly estimate the probability that the dependent variable is equal to one (Perez-Truglia, 2009), which is known as the linear probability model (LPM).

Formally, the sought conditional probability can be written as follows:

$$F(z) = \int_{-\infty}^z f(v) dv \quad (2)$$

Being  $f(v)$  the probability density function associated with the standard normal cumulative probability distribution, t-Student or logistic, as appropriate (Wooldridge, 2010).

In parallel, each of the nonlinear probability models mentioned above can be defined through a latent variable specification  $Y^*$ , such that:

$$Y = \begin{cases} 1 & \text{si } Y^* \leq y \\ 0 & \text{si } Y^* > y \end{cases} \quad (3)$$

Where  $y$  represents a threshold such that the realization of the Bernoulli random variable implies success ( $Y = 1$ ) or failure ( $Y = 0$ ), according to the levels of the linear combination  $X\beta$  that contains the explanatory variables of interest (Greene, 2010, pp. 201-214).

In this way, the probability of interest is translated into the estimate of the cumulative probability distribution of  $Y^* \leq y$ , which leads to the marginal effects of each of the explanatory variables  $X_i$ ,  $i = 1, 2, \dots, k$  on the conditional probability (Wooldridge, 2010) being defined as:

$$\frac{\partial P}{\partial X_i} = \frac{\partial F}{\partial z} \frac{\partial z}{\partial X_i} = f(z)\beta_i \quad (4)$$

In this paper, the marginal effects of the explanatory variables are estimated using the above scheme for each of the robit, probit, and logit models, and a comparative framework is established between the various specifications and the linear probability model. In order to make the results reliable, the robust standard errors proposed in White (1980) are used to assess the statistical significance of the calculated coefficients, which reduces specification bias, endogeneity, heteroscedasticity, or other atypical features to tolerable levels (Naghi et al., 2022).

Furthermore, the data used were taken from an effective sample of 1217 interviews, with 1017 in local businesses and the rest in affluence (without a set location). The distribution by commercial activity is similar to the real distribution in each metropolitan area: Mexico City, Monterrey, and Guadalajara.

The businesses were selected through random sampling within each metropolitan area, considering micro, small, and medium-sized enterprises engaged in manufacturing, commercial, and private non-financial service activities that survived the pandemic as a reference population.

The data set was weighted with adjustment factors replicating the actual weight of the number of businesses in each of the three metropolitan areas. These factors are obtained from the study *Demografía de los negocios*—Business Demographics—conducted by the Instituto Nacional de Estadística y Geografía—National Institute of Statistics and Geography—Inegi (2023) for all micro, small and medium-sized businesses in Mexico between 2019 and 2023.



The set of variables used in the estimated models are:

**INCLUSION**, a binary variable that takes the value of one if the number of banking products reported by the business is at least one, namely, checking account, credit of any type, credit cards, point of sale terminals, digital payments, digital payment or digital payroll dispersion; investments or mutual funds of some kind; car, premises or facilities insurance, among others.

**EDUCATION**, a binary variable that equals one if the business owner has a college education: bachelor's, master's, or doctorate, and zero otherwise.

**AGE**, a set of binary variables that capture the age (number of years) of the business owner interviewed. The age ranges considered are the following: less than 30 years, between 30 and 39 years, between 40 and 49 years, between 50 and 59 years, and over 59 years.

**WORKER**, a dichotomous variable that takes the value of one if the respondent works alone and zero if he or she has employees.

**HOUSEHOLD\_SIZE** corresponds to the number of people, including the respondent, living in the household.

**DIGITALIZATION** takes the value of one when the business owner reports the use of at least one of the following elements: advertising on Facebook, Tik-Tok, Instagram, LinkedIn, Google; digital payments, point-of-sale terminals, sale of goods or services through Internet platforms and/or mobile applications.

**GENDER**, a variable that takes only two values, the number one if the business owner is a woman and zero otherwise.

**CITY**, a set of three binary variables that take the value of one for the business owner's location, as appropriate: Mexico City, Guadalajara, or Monterrey, and zero otherwise.

**SECTOR** considers three dichotomous variables according to the categories that capture the industry in which the respondent business owner operates: services, commerce, or manufacturing.

**SUPPORT**, a variable that takes only two values: The value of one if the business owner received government support during the COVID-19 pandemic, and zero otherwise.

**WORK\_FROM\_HOME**, a binary variable with two categories, a value of one for the business owner who worked part of the time at home versus the opposite case with a value of zero.

The following section presents the maximum likelihood estimation for the linear, probit (normit), logit, and robit probability models and briefly describes the information set used.

## 4. Analysis of Results

Table 1 presents the descriptive statistics of the data sample to identify the general patterns of the studied variables (see Table 1).

The data set consists of 47% of women business owners. Also, 24% of people have a college education, with the majority of individuals, 24.62%, being between 40 and 50 years of age, while those over 60 correspond to the lowest proportion, 14.44%.

The average number of household members in the available sample is 3.92. In this regard, 25.84% of business owners report some level of digitalization in their companies.

**Table 1.** Descriptive Statistics

INCLUSION	Mean	Standard Deviation	Skewness	Kurtosis
GENDER	0.4743	0.4995	0.1028	1.0106
EDUCATION	0.2421	0.4285	1.2044	2.4507
AGE				
AGE [<30)...	0.2060	0.3974	1.5283	3.3357
AGE [30,40)	0.2265	0.4117	1.3805	2.9057
AGE [40,50)	0.2462	0.4240	1.2518	2.5671
AGE [50,60)	0.1769	0.3746	1.7693	4.1305
AGE [>60)...	0.1444	0.3448	2.1024	5.4201
WORKER	0.6585	0.4744	-0.6686	1.4470
HOME SIZE	3.9193	1.7936	1.9189	13.9662
DIGITALIZATION	0.2584	0.4379	1.1041	2.2190

INCLUSION	Mean	Standard Deviation	Skewness	Kurtosis
WORK FROM HOME				
CITY				
MEXICO	0.3407	0.4741	0.6724	1.4521
GUADALAJARA	0.3260	0.4689	0.7424	1.5512
MONTERREY	0.3333	0.4716	0.7071	1.5000
SECTOR				
SERVICES	0.3741	0.4841	0.5204	1.2709
TRADE	0.5004	0.5002	-0.0016	1.0000
MANUFACTURE	0.1255	0.3314	2.2608	6.1111
SUPPORT	0.1174	0.3220	2.3778	6.6538

Source: Prepared by the authors.

On the one hand, the geographic distribution of business owners in the data set is relatively uniform, with 34.07% located in Mexico City, 32.60% in Guadalajara, and 33.33% in Monterrey. Also, the commerce sector accounts for 50.04% of business owners, while the manufacturing and services sectors account for a lesser percentage. On the other hand, the bias of each variable is different from zero, and the kurtosis is different from three, which, in descriptive terms, indicates a lack of symmetry in the data and a concentration of information that differs from the Gaussian bell curve.

Based on the above variables, the LPM, robit, logit, and probit models were estimated for the dependent variable INCLUSION, with the logit model presenting a lower BIC and, therefore, a higher goodness-of-fit. Table 2 presents the marginal effects of each explanatory variable on the probability that a business presents at least one banking product (see Table 2). A more extensive description of the marginal effects can be found in Tables A1, A2, A3 and A4, in the Appendix (see Table A1, Table A2, Table A3 and Table A4, in the Appendix).

Considering the magnitude of McFadden's pseudoR<sup>2</sup> (Wooldridge, 2010), there is evidence to affirm that the nonlinear probability model robit presents a greater goodness-of-fit since it has a value of 0.1301, higher than the probit and logit coefficients that correspond to 0.1237 and 0.1245, respectively. Similarly, when conducting the Hosmer-Lemeshow test (Liu, 2004) for each specification, the results

indicate that the observed and expected proportions are equal in the dependent variable. These results imply an adequate goodness-of-fit for the estimated models under a confidence level of 90%.

If the owner is a woman, the marginal effect is negative (-6.85%); if she has a college education, the probability of having at least one banking product increases by 14.86%. No significant differences are attributable to whether the business owner works alone, works from home, or the size of the owner's household.

Likewise, the expected results are as follows: the more significant the digitalization, the greater the financial inclusion, and the conditional probability increases by 25.96%. Similarly, evidence has been found that the older the owner is, the greater the probability of having at least one banking instrument.

Furthermore, regarding Mexico City, if the business is located in Guadalajara or Monterrey, the probability that the owner has some degree of financial inclusion increases by 18.94% and 14.10%, respectively.

The service sector where the business is located has, on average, the same level of inclusion as the manufacturing sector and the trade sector increase their probability of having at least one banking product by 0.36%. Support from the Government or an institution (SUPPORT) increases the degree of financial inclusion by 16.32%.

**Table 2.** Marginal Effects

INCLUSION	Probit		Logit		LPM		Robit	
GENDER	-0.0704	**	-0.0677	**	-0.0645	**	-0.0685	*
EDUCATION	0.1468	***	0.1515	***	0.1251	***	0.1486	***
AGE								
AGE [30,40)	-0.0790	*	-0.0838	*	-0.0693	*	-0.0800	*
AGE [40,50)	-0.0720	*	-0.0784	*	-0.0676	*	-0.0729	*
AGE [50,60)	-0.1275	***	-0.1342	***	-0.1148	***	-0.1291	***
AGE [>60)...	-0.1969	***	-0.2069	***	-0.1795	***	-0.1993	***
WORKER	-0.0152		-0.0161		-0.014		-0.0154	
HOME SIZE	-0.0088		-0.0094		-0.0084		-0.0089	
DIGITALIZATION	0.2564	***	0.2578	***	0.2356	***	0.2596	***
WORK FROM HOME	-0.0275		-0.0270		-0.0218		-0.0273	

INCLUSION		Probit		Logit		LPM		Robit	
CITY									
	GUADALAJARA	0.1903	***	0.1871	***	0.1844	***	0.1894	***
	MONTERREY	0.1393	***	0.14	***	0.1357	***	0.1410	***
SECTOR									
	TRADE	0.0040	**	0.0036	**	0.0023	**	0.0036	**
	MANUFACTURE	-0.0698		-0.0751		-0.0673		-0.0707	
	SUPPORT	0.1468	***	0.1634	***	0.145	***	0.1632	***

Note. \*, \*\*, \*\*\* confidence level of 90%, 95% and 99%, respectively.

Source: Prepared by the authors.

Considering the statistically significant marginal effects of the robit, probit, and logit models, and robust LPMs, there is evidence that the sociodemographic characteristics of the business owners, corresponding to gender, higher education, age ranges, digitalization, geographic region (cities of Guadalajara, Monterrey, and Mexico City), industry sector (services, commerce, and manufacturing) and government support have a relevant impact on the conditional probability of presenting some degree of financial inclusion.

## 5. Conclusions

The probit, logit, and robit probabilistic models, and the LPM are estimated based on a face-to-face survey of business owners with 1217 interviews in 2023. According to the Akaike and Schwarz information criteria, McFadden pseudo-R<sup>2</sup>, and likelihood ratio tests (Greene, 2010), evidence is found to affirm that the robit specification achieves a greater goodness-of-fit.

In this case, considering the results of the marginal effects, it is suggested that women over 30 should be fostered to a greater extent than men with access to digital media. Similarly, financial inclusion measures should focus on Mexico City compared to the cities of Monterrey and Guadalajara. Also, as expected, business owners should be encouraged to access higher education since the probability of achieving a degree of financial inclusion is 14.86% based on this attribute alone.

On the one hand, factors such as solo work for business owners, work from home, or household size do not significantly impact the probability of accessing financial inclusion. Similarly, it is suggested that access to digital media be strengthened to a greater extent among business owners in the manufacturing sector since this attribute reduces the probability of access to banking products connected to the trade and services sectors.

On the other hand, the main limitation of this study is that the binary dependent variable does not encompass all the desirable dimensions for measuring the degree of financial inclusion of a business owner. It would be desirable to add, among others, spatial variables related to the geographic location, the income level structure of the company and the business owner, and a description of access to assets without mentioning personality characteristics, such as risk aversion.

Lastly, the findings suggest that the sociodemographic characteristics of business owners in Mexico should be monitored since their attributes change over time, and this would allow for a more robust targeting of public policies to encourage the financial inclusion of business owners.



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## Appendix

**Table A1.** Marginal Effects of the Probit Model

INCLUSION [PROBIT]	Marginal effect	Standard error	z-statistic	p-value
GENDER	-0.0704	0.0291	-2.41	0.016
EDUCATION	0.1468	0.0324	4.22	0.000
AGE				
AGE [30,40)	-0.0790	0.0450	-1.78	0.075
AGE [40,50)	-0.0720	0.0440	-1.66	0.097
AGE [50,60)	-0.1275	0.0489	-2.66	0.008
AGE [>60)	-0.1969	0.0518	-3.86	0.000
WORKER	-0.0152	0.0314	-0.48	0.629
HOME SIZE	-0.0088	0.0082	-1.06	0.287
DIGITALIZATION	0.2564	0.0288	7.61	0.000
WORK FROM HOME	-0.0275	0.0323	-0.85	0.393
CITY				
GUADALAJARA	0.1903	0.0321	5.55	0.000
MONTERREY	0.1393	0.0329	4.07	0.000
SECTOR				
TRADE	0.0040	0.0470	0.09	0.932
MANUFACTURE	-0.0698	0.0312	-2.23	0.026
SUPPORT	0.1612	0.0389	3.66	0.000

Source: Prepared by the authors.

**Table A2.** Marginal Effects of the Logit Model

INCLUSION (LOGIT)	Marginal effect	Standard error	z-statistic	p-value
GENDER	-0.0677	0.0295	-2.29	0.022
EDUCATION	0.1515	0.0324	4.68	0.000
AGE				
AGE [30,40)	-0.0838	0.0470	-1.78	0.074
AGE [40,50)	-0.0784	0.0454	-1.73	0.084
AGE [50,60)	-0.1342	0.0503	-2.67	0.008
AGE [>60)	-0.2069	0.0536	-3.86	0.000
WORKER	-0.0161	0.0319	-0.51	0.614
HOME SIZE	-0.0094	0.0083	-1.12	0.262
DIGITALIZATION	0.2578	0.0285	9.03	0.000
WORK FROM HOME	-0.0270	0.0329	-0.82	0.411
CITY				
GUADALAJARA	0.1871	0.0316	5.91	0.000
MONTERREY	0.1400	0.0326	4.29	0.000
SECTOR				
TRADE	0.0036	0.0479	0.08	0.940
MANUFACTURE	-0.0751	0.0316	-2.38	0.018
SUPPORT	0.1658	0.0379	4.38	0.000

Source: Prepared by the authors.



**Table A3.** Marginal Effects of the Linear Probability Model

INCLUSION (LPM)	Marginal effect	Standard error	z-statistic	p-value
GENDER	-0.0645	0.0263	-2.45	0.014
EDUCATION	0.1251	0.0313	4.01	0.000
AGE				
AGE [30,40)	-0.0693	0.0382	-1.81	0.070
AGE [40,50)	-0.0676	0.0375	-1.82	0.072
AGE [50,60)	-0.1148	0.0418	-2.75	0.006
AGE [>60)	-0.1795	0.0445	-4.03	0.000
WORKER	-0.0140	0.0281	-0.50	0.619
HOME SIZE	-0.0084	0.0074	-1.14	0.254
DIGITALIZATION	0.2356	0.0309	7.63	0.000
WORK FROM HOME	-0.0218	0.0286	-0.76	0.445
CITY				
GUADALAJARA	0.1844	0.0323	5.71	0.000
MONTERREY	0.1357	0.0322	4.22	0.000
SECTOR				
TRADE	0.0023	0.0421	0.05	0.956
MANUFACTURE	-0.0673	0.0281	-2.41	0.017
SUPPORT	0.1468	0.0403	3.64	0.000

Source: Prepared by the authors.

**Table A4.** Marginal Effects of the Robit Model

INCLUSION ROBIT	Marginal effect	Standard error	z-statistic	p-value
GENDER	-0.0685	0.0295	-2.33	0.010
EDUCATION	0.1486	0.0328	4.53	0.000
AGE				
AGE [30,40)	-0.0800	0.0456	-1.76	0.040
AGE [40,50)	-0.0729	0.0445	-1.64	0.051
AGE [50,60)	-0.1291	0.0495	-2.61	0.005
AGE [>60)	-0.1993	0.0524	-3.80	0.000
WORKER	-0.0154	0.0318	-0.48	0.314
HOME SIZE	-0.0089	0.0083	-1.07	0.142
WORK FROM HOME	0.2596	0.0292	8.90	0.000
DIGITALIZATION	-0.0273	0.0327	-0.84	0.202
CITY				
GUADALAJARA	0.1894	0.0325	5.83	0.000
MONTERREY	0.1410	0.0330	4.27	0.000
SECTOR				
TRADE	0.0036	0.0476	0.08	0.531
MANUFACTURE	-0.0707	0.0316	-2.24	0.013
SUPPORT	0.1632	0.0394	4.14	0.000

Source: Prepared by the authors.

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