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Covid-19 and labor inactivity

An analysis of the effects of the socioeconomic and sociodemographic characteristics of individuals and their households on the propensity of the inactive population to return to the labor market

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ABSTRACT

Objective: This study's objective is to determine the effects of the socioeconomic and sociodemographic characteristics of individuals and their households on the propensity of available inactive people to return, or not return, to the labor market (LM), as well as to remain inactive but available to work in Mexico.

Methods: The study's methodological strategy is quantitative. It carried out a descriptive analysis and used a multinomial logistic model to determine the effect of the different socioeconomic and sociodemographic variables of individuals and their households on the alternatives available to the inactive population in the COVID-19 pandemic scenario in Mexico.

Results: Its main results indicate that gender is a factor that significantly influences the likelihood of leaving or staying in the inactive group, and that age is also a relevant variable, given that, the older the individuals, the higher the likelihood of their remaining inactive. In contrast, education is presented as a protective factor against inactivity in view of educational achievements being essential when returning or not returning to the LM. Similarly, work experience has a significant effect when people remain inactive since the greater their work experience, the greater their propensity to return to the LM. Finally, it is important to note that the higher the household's proportion of working individuals, and higher the number of members in the household, the lower is their propensity to remain inactive.

Conclusion: Under the COVID-19 contingency situation, the proportion of available inactive people in Mexico increased substantially. Thus, the socioeconomic variables of individuals comprising the group of available inactive people largely determines their likelihood of returning to the LM or remaining inactive. In addition, this study's results reveal how variables relating to the sociodemographic composition of households influence the population's return to the LM or permanence of labor inactivity.

Keywords: labor market, labor inactivity, COVID-19, Mexico

1. INTRODUCTION

The severe acute respiratory syndrome coronavirus 2, which caused the coronavirus disease (COVID-19) pandemic has had a substantial impact on the economic activity and labor market (LM) in Mexico (Esquivel, 2020; Ministry of Finance and Public Credit, 2020). The results of the Telephone Survey of Occupation and Employment (*Encuesta Telefónica de Ocupación y Empleo* - ETOE) for the month of April 2020 showed a decrease in the participation rate by 12.3 percentage points, from 59.8% in March to 47.5% in April. This reveals a reduction in pressure on the LM from working-aged people. The 12.1 million people who left the economically active population (EAP) is the sum total of the 0.6 million who left the LM and the 11.5 million who moved to the non-economically active population (NEAP). These numbers, although alarming, should be analyzed since they include individuals, who are available to work, as well as those who are unavailable. In April, the unavailable NEAP was 2.6 million, while the available NEAP[1] was 14.1 million.

In addition to the substantial increase in the labor inactivity rate, a significant proportion of the 900,000 jobs that were lost between April and May were disproportionately concentrated in low-income occupations, such as agriculture, construction, and services (Esquivel, 2020), as well as in informal jobs (PNUD, 2020). A similar situation had arisen during the 2008-2009 economic crisis, when the inactive population was mainly composed of low-paid and non-qualified self-employed workers (Ochoa, 2016).

The increase in the group of inactive people is the consequence of the closure of several manufacturing and service sectors that suspended activities in April to comply with social distancing measures (Esquivel, 2020; OIT, 2020; PNUD, 2020). It is also due to the fact that many of those who became unemployed, noticing the job uncertainties, did not look for jobs or are awaiting resumption of economic activities to return to the LM (Weller *et al.*, 2020).

The increase in the inactive population, expressed in a decrease of 17.3% in the Global Indicator of Economic Activity (*Indicador Global de la Actividad Económica* - IGAE) for April, reflects the abrupt fall in economic activity, which had the greatest impact on the industrial and service sectors (Esquivel, 2020). It should be noted that these were the same sectors that were the most affected during Mexico's 2008-2009 economic crisis (García, 2012; Samaniego, 2007; Ochoa, 2016).

The expectations and the extent of the impact of the pandemic on social and economic indicators are uncertain (PNUD, 2020). To start with, prior to the pandemic, Mexico's LM had

[1] The available NEAP refers to those who are available to work, but are not actively seeking occupation or employment (García, 2012).

made no progress in reducing informal jobs, with more than 56% of its workforce employed in this context (OCDE, 2017; Altamirano, Azuara and González, 2020). Therefore, with the appearance of new infections or a second wave of transmission, plus the confinement policies, its economic activities and LM were further affected, making it difficult for the inactive population to return to work (OIT, 2020; Ministry of Finance and Public Credit, 2020).

In general, the numbers show that the pandemic's greatest effects were observed in the increase in the available NEAP. Therefore, it is very relevant to study this population group under the conditions experienced by the Mexican LM. Now, the question is: What will happen to the available inactive population? or What will determine whether this population returns to the LM in this crisis situation, which additionally, is constantly and rapidly evolving? (Altamirano, Azuara, and González, 2020).

Since the scenario is not too favorable, the country's economy is projected to decrease from -8.5% to -10.5% (Esquivel, 2020) this year. Although the LM varies depending on the economic activity (Altamirano, Azuara, and González, 2020), it must be taken into account that in Mexico, this behavior occurs only with formal employment, since throughout the economic cycle, informal employment moves in the opposite direction of the economy (Leyva and Urrutia, 2018), which increases the relative cost of employment, and leaves the population exposed to inactivity. Similarly, given the country's high percentage of informal jobs, the pandemic's effect on the LM is likely to be greater (PNUD, 2020).

A key issue now is how quickly the lost formal jobs can be regained and how soon the millions of people who left the LM can be reintegrated. Of course, all this will depend on the evolution of the pandemic and the gradual reopening of the country's economy (Esquivel, 2020). However, in a favorable scenario, the OIT stipulates that it is unlikely that the num-

ber of jobs at the end of 2020 will be the same as before the crisis (OIT, 2020).

The pandemic's magnitude and impact on the Mexican LM having not yet been determined, makes it difficult to model its effects on the available inactive population (Altamirano *et al.*, 2020). In this context, this study's objective is to identify the sociodemographic characteristics of these individuals and their households, and analyze how these characteristics influence their likelihood of returning to the LM, or of remaining inactive if not returning. The most relevant household demographic variables are used only for the month of April, since the scope of the data restricts the information on this population and the comparison with other surveys from previous months.

The theoretical reason for addressing the inactive population by considering the demographic composition of their households is due to their fundamental role in times of economic crisis. To face the imbalances of the LM, in periods of crisis, Mexican households tend to adjust their life strategies (Tuirán, 1993; Maldonado, 2010; Coneval and Unicef, 2010)—the most relevant being strategies to generate additional resources, optimize resource efficiency, and those that affect family size and structure—which include the migration of some members (Tuirán, 1993; Coneval and Unicef, 2010). In periods of generalized economic crisis, such as the COVID-19 pandemic, households use these strategies to mitigate the deterioration of their living conditions.

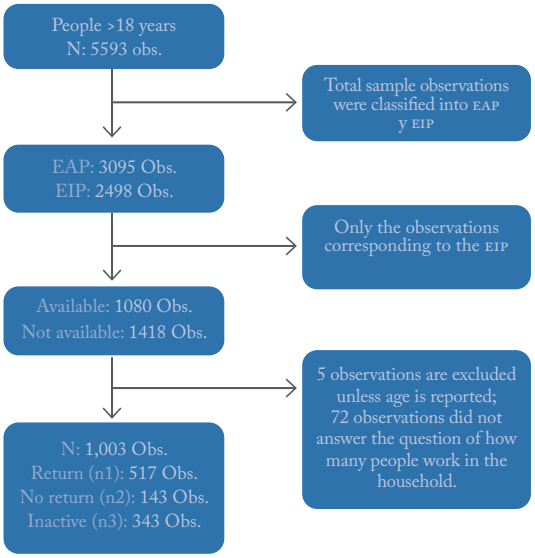
2. DATA, DESIGN, AND RESEARCH METHODS

2.1. Databases, sample sizes, and classification

Telephone Survey on COVID-19 and the Labor Market (ECOVID-ML) was carried out based on a sample of telephone numbers selected from the National Numbering Plan of the Federal Institute of Telecommunications, with a sample composed of telephone users aged 18 years or more. Its main objective was to collect information on the impact of COVID-19 on the Mexican LM (INEGI, 2020).

The survey's reference period was April 2020. The estimate of the Mexican population reported by ECOVID-ML is equivalent to 97 million people, corresponding to 76.4% of the country's population. Of this, 68.2 million correspond to the population aged 18 years or more. In terms of the sample, the ECOVID-ML has 5,593 observations, with 55.3% classified as EAP and 44.7% as NEAP. Within the first group, 51.7% refers to the employed and 3.6% to the unemployed. In the second group, 56.8% corresponds to the unavailable population and 43.2% to the available inactive population. This last item corresponds to the sample in this research, which is equivalent to 1,080 individuals over 18 years of age. Figure 1 shows the diagram of exclusion of observations from the sample.

Figure 1.
Analytical sample: exclusions of original samples



Source: Own elaboration based on data from Ecovid-ML, April 2020.

2.2. Variables

In this study, the variable of interest refers to the different alternatives available to the inactive population during the COVID-19 scenario. Three response categories are defined based on the following survey questions: *How long will it take to return to the same job?* Firstly, individuals who answered this question with one of the following options: *"Already returned to work or will return this week," "When the coronavirus or COVID-19 contingency ends," "In four weeks or less,"* or *"In more than four weeks"* were all grouped into a category called "Returned to the LM." Secondly, those who answered the first question with one of the following options: *"There is no certainty about returning to work,"* or *"Will not return to work"* were classified into the category, "Did not return to the LM." Finally, those who did not answer this question, but answered *"Yes"* to the following two questions: *Did you look for work during the past month? Do you currently want to work to earn an income?* and in response to the question: *Why didn't you look for a job in the last month?* answered: *"Due to the coronavirus or COVID-19 contingency"* were classified in a third category called "Remain inactive." The independent variables were gender, age, education, and work experience,[2] while the squared work experience was used as a control for the latter's decreasing returns. Regarding the household, the mean household size, the household's demographic dependency index, the proportion of people working, the masculinity ratio, and access to Wi-Fi, computer, printer, and landline telephone were considered.

2.3. Methods

To test the research objective, it is proposed to estimate a statistical model that explains the association between some of the socioeconomic and sociodemographic variables of individuals and their households with the propensity of the available inactive population to return to the LM in the COVID-19 scenario.

[2] To calculate the potential years of experience in the LM, the indirect estimate proposed by Mincer (1974) was considered, which refers to the equation: *experience = {age-years of education-6 (age of early childhood)}*, widely addressed in the Mexican literature (Barceinas, 1999, 2002; Prada, 2006; Ordaz, 2007; Morales-Ramos, 2011).

Specifically, it is intended to estimate a multinomial logit model that reflects the association of the different socioeconomic and sociodemographic variables with the likelihood of returning to the LM. The multinomial logit model predicts the probabilities of the different possible outcomes of a categorical distribution as a dependent variable, given a set of independent variables.

For developing this model, defined categories are considered: Returned to the LM ; Did not return to the LM , and Remain inactive . While categories 1 and 2 would represent the transitions that occur in the LM; category 3 reflects labor uncertainty— not knowing whether to enter the LM or remain inactive for longer.

The predictive effects are modeled as fixed or random effects in a general linear mixed model, and particularly, in a model with a multinomial outcome. The selection of the model with the best fit was carried out based on the stepwise method, in which the model starts with only the constant, and then the relevant variables are included one by one. In this process, the maximum likelihood statistic was first considered without including any explanatory variables, and in the second phase, these explanatory variables were included. These models were compared using the ANOVA test. In addition, the goodness of fit and the model selection were assessed based on the Bayesian information criterion. The calculations were performed with the RStudio® statistical package.

2.4. Statistical analysis of the data

Of the 1,080 individuals, 63.1% were female and 36.9% were male, with a mean age of 42.9 ± 15.3 years. Approximately 60% had education equal to or lower than high school, with a lower concentration in the group with higher education and equal to a bachelor's degree. In terms of work experience as an approximation variable, it was observed that this indicator varies on an average between 24.8 ± 16.4 years.

As for the sociodemographic characteristics of households, the mean household size is 4.3 ± 2.0 individuals. The demographic dependency index was categorized into three levels (low, medium, and high). In this regard, in 42.3% of the households, in which, the individuals in this study lived, for each individual of demographically dependent age, whether a child (<15 years) or an adult (<65 years), there were four individuals in the age group of 15 to 64 years. In contrast, the dependency index is high in 35.3% of the households, since there are either two or only one individual of productive age for one of dependent age.

The masculinity index also reveals important aspects of the demographic composition of households. There is a higher female than male percentage in 37.1% of these households, while regardless of age, there is more than one male for every female in 32.8% of the households. Another indicator of the survey is the proportion of working people, which shows

Table 1.
Characteristics of the study sample

Variables	*Absol.*	*Relat.*	*p < c2*
Total	1080	100	
Age	1075	42.86(15.3)	
Gender			
Female	682	63.1%	0.164
Male	398	36.9%	
Level of education			
None, primary	271	25.1%	0.000
High School	376	34.8%	
High School, Bachelor's Degree, Technical	296	27.4%	
Bachelor's, Master's, or Doctorate degree	137	12.7%	
Work experience	1075	24.78 (16.4)	
Mean number of members	1080	4.274 (2.03)	
Demographic dependency index			
Low (< = 25%)	457	42.3%	0.000
Medium (25–50%)	242	22.4%	
High (50–100%)	381	35.3%	
Masculinity ratio			
<1 RM	401	37.1%	0.017
1 RM	325	30.1%	
>1 RM	354	32.8%	
Proportion of working people			
Low (< = 25%)	284	28.3%	0.000
Medium (25–50%)	471	47.0%	
High (50–100%)	247	24.7%	
Technological tools in the household			
Computer	344	31.9%	0.000
Internet	231	21.4%	
Printer, landline phone	140	13.0%	
None	365	33.8%	

Source: Own elaboration based on ECOVID-ML, *April 2020.*

that in 28.3% of the households, there are four individuals who study or do unpaid domestic work for each individual who works. Similarly, in 47% of the households, there are two individuals who study or do domestic work for every individual who works, whereas in 24.7%, the proportion is high, with less than two individuals dedicated to an activity other than work, for every working individual.

Finally, access to technological tools was another socioeconomic variable that could be examined through the survey for the group of interest. It is observed that 21.4% of the households have access to Wi-Fi and 31.9% to a computer, whereas 33.8% did not have access to any of these tools (Table 1).

3. RESULTS

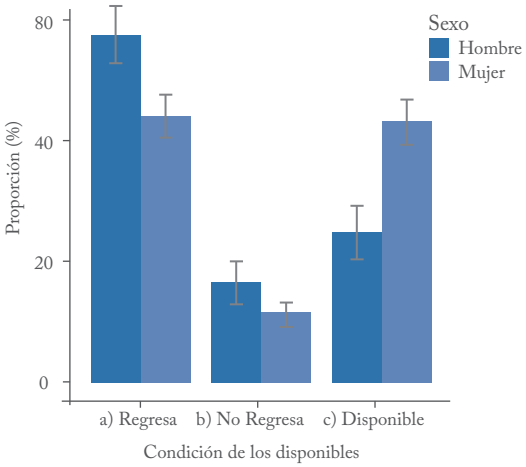
3.1. Descriptive analysis

Of the 1,075 individuals considered in this study, the categories of the dependent variable are distributed as follows: 49.4% returned to the LM, 13.8% did not return, and 36.8% remained inactive and available. Figure 1 shows that gender differences are evident in the categories of those who returned and those who remained available, which indicates that there are no significant differences between genders in the group that did not return. Whilst significant differences were observed between females in the three categories of analysis; differences among males are observed only in the group that returned to the LM compared to the rest. A final finding is the significant proportion of females in the group of people who did not return to the LM, while the highest proportion of males was observed in the group of those who returned.

Figure 2 shows the age distribution in each category of the study and its non-linearity is

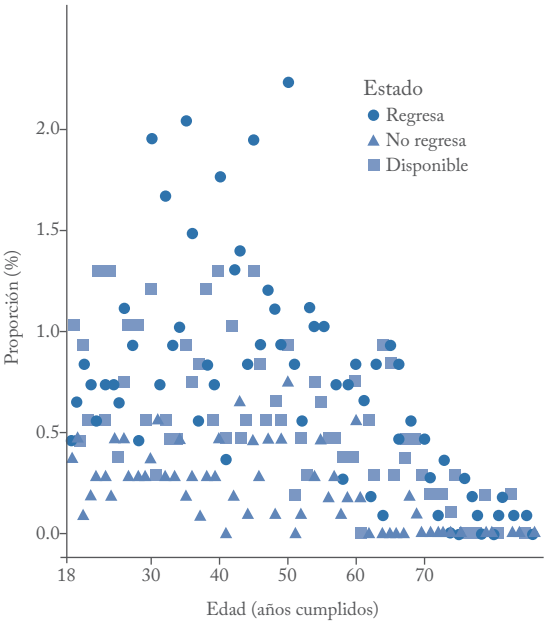
Gráfica 1.

Proportion of inactive population available by sex Mexico, April 2020



Fuente: Elaboración propia con base en ECOVID-ML *https://www.inegi.org.mx/investigación/ecovidml/2020/*

Figure 2.
Distribution of the states of the inactive population Mexico, April 2020

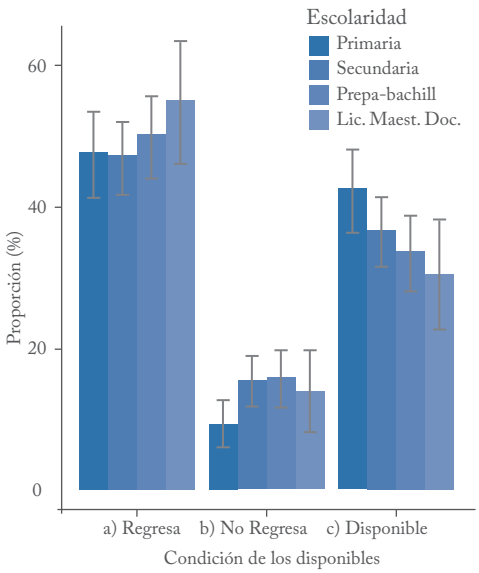


Fuente: Elaboración propia con base en ECOVID-ML *https://www.inegi.org.mx/investigación/ecovidml/2020/*

evident. However, most of the observations are concentrated in the age group of 18 to 50 years, with a higher proportion of inactive people returning to the LM. A final finding that emerges from this figure is that the study sample is concentrated in individuals of productive age.

Similarly, while Figure 3 shows no significant differences in any of the three categories according to the levels of education; there are differences in the levels of education which indicate the gradient generated within each category by education. Therefore, these results indicate that there is a different proportion of individuals with secondary education in the group of those who returned to the LM and in the group of those who remained available. Moreover, there are fewer individuals with upper secondary or higher education in the group of those who remained available, as

Figure 3.
Proportion of inactive population by schooling level Mexico, April 2020



Fuente: Elaboración propia con base en ECOVID-ML *https://www.inegi.org.mx/investigación/ecovidml/2020/*

opposed to those who returned to work, which indicates the different gradients created by education in each of these categories.

Regarding the variables of the demographic composition of households, Table 2 shows that the mean household size is greater in the group of inactive people, who are not sure about returning to work, and this indica-

Table 2.

Indicators of the household demographic composition by the situation of the inactive population

Indicators	Situation of the available inactive population		
	Returned [95% IC]	Did not returned [95% IC]	Available [95% IC]
Mean household size	4.23 [4.17-4.29]	4.39 [4.32-4.45]	4.28 [4.21-4.34]
Demographic dependency index	0.87 [0.81-0.93]	0.57 [0.53-0.60]	1.00 [0.94-1.07]
Masculinity ratio	1.10 [1.08-1.13]	1.21 [1.18-1.24]	1.10 [1.07-1.13]
Proportion of working people	2.10 [2.08-2.12]	2.05 [2.03-2.07]	1.71 [1.69-1.73]

Source: Own elaboration based on ECOVID-ML, *April 2020.*

tor is significantly higher than in the groups of those who returned to the LM and those who remained inactive.

Conversely, the demographic dependency index is significantly different in the three groups of this analysis, indicating that there are dependents for every 10 individuals of working age in the group that returns to work. In the group of people who are not sure about returning to work, the result suggests that there are 2 individuals of working age for every individual of non-productive age. Among those who remained inactive, the indicator shows that there is one individual of non-productive age in their household for every individual of working age.

It is also observed that the masculinity ratio in the households differs significantly between the group that did not return to work and the remaining groups. These results suggest that there are 11 males for every 10 females in the households of the group that returned to the LM and the group that remained available, while there are 12 males for every 10 females in the households of the group that did not return to work.

Finally, in the households, the proportion of people who work is statistically different in each of the study categories. Regarding the group of inactive people who could return to the LM and the households in which they live, 2 indivdiuals study or do domestic work for every 4 individuals who work. This value is very similar to that reported in the category of inactive people who did not return to the LM. However, this indicator is significantly lower in the category of those who remained inactive but available; with the percentage of household members who worked being lower in this group.

3.2. Multinomial logistic analysis

The results of the statistical analysis show two blocks of coefficients (Table 3). Each block of coefficients can be considered a binary logistic model, which compares the probability that an available inactive individual does not enter the LM or remains in the same state against the probability of returning to the LM, which is the reference category.

Table 3.

Factors associated with the labor reinsertion of inactive persons. Multinomial logistic regression model

	Personas sin seguridad de regresar al mercado laboral					*Personas que se mantienen inactivas disponibles*				
Variables	*b*	*b*(EE)	*Walt test*	RRR	RRR [IC 95%]	*b*	*b* (EE)	*Walt test*	RRR	RRR [IC 95%]
Sex (woman = 1)	-0.124	0.19	-0.66	0.88	[0.613-1.274]	0.868***	0.15	5.95	2.38	[1.79-3.169]
Age (years old)	-0.007	0.01	-0.50	0.99	[0.965-1.021]	0.022**	0.01	1.99	1.02	[1.00-1.045]
Level of education (primary)										
Junior high school	0.319	0.17	1.84	1.38	[0.979-1.935]	-0.221*	0.13	-1.64	0.80	[0.616-1.045]
High school	0.243	0.17	1.45	1.28	[0.917-1.773]	-0.463***	0.14	-3.39	0.63	[0.481-0.823]
Bachelor's, Master's, PhD	0.023	0.14	0.16	1.02	[0.771-1.357]	-0.64***	0.10	-6.18	0.53	[0.431-0.646]
Experience	0.018	0.03	0.62	1.02	[0.961-1.08]	-0.079***	0.02	-3.95	0.92	[0.889-0.961]
Experience 2	-0.001	0.00	-1.31	1.00	[0.999-1.00]	0.001***	0.00	4.06	1.00	[1.000-1.001]
Proportion of working people (alta 50-100%)										
Low (< = 25%)	0.03	0.26	0.12	1.03	[0.62-1.714]	1.122***	0.20	5.59	3.07	[2.072-4.554]
Medium (25-50%)	-0.258	0.22	-1.17	0.77	[0.501-1.192]	0.485***	0.17	2.81	1.62	[1.158-2.279]
Individuals per household	0.002	0.05	0.05	1.00	[0.915-1.099]	-0.061*	0.04	-1.64	0.94	[0.875-1.012]
Constant	-1.039***	0.03	-31.81	0.35	[0.332-0.377]	-0.658***	0.03	-22.21	0.52	[0.489-0.549]

*N = 1075. Standard errors in brackets *p < 0.10, **p < 0.05, ***p < 0.01 (two tailes test).*

*Source: Own elaboration based on Ecovid-*ML*, April 2020.*

Table 3 shows that the findings obtained based on the coefficient and its significance with respect to the gender variable are different. In the first scenario, the coefficients of the gender variable were not significant, since they indicate that the propensity to not return versus the propensity to return to the LM does not change, regardless of whether the individuals are male or female. However, the odds of remaining inactive versus returning to the LM are 2.38 times higher in females than males.

Within this same group of demographic factors, age also shows an important correlation with the different conditions. However, age does not show a significant effect in all categories of the dependency variable.For example, while in the first scenario, age does not have a significant effect; contrarily, in the second scenario, the significance of the coefficient indicates that if all the other variables are kept constant, the odds of remaining inactive versus returning to the LM are multiplied by 1.02 as the age of the individuals in the sample increases by 1 year.

The education coefficients were not significant in any of the scenarios. In this case, education did not have a differentiating effect on the propensity to transition or not, when comparing the group that did not return to work with the group that returned to the LM. However, this is different when analyzing the group that remains inactive and available. In general, a significant gradient is observed. The coefficients indicate that the propensity for an individual to remain inactive is significantly lower with a higher level of education. The propensity to remain inactive versus return to the LM decreases by 20%, 37%, and 47% if the individual has secondary, college, or higher education, respectively, compared to those with primary or no education. These results demonstrate that education has an important effect on whether an inactive individual enters the LM.

Regarding the work experience variable, it is evident that it was not significant in all the scenarios. This indicates that the propensity to not return to work versus return to the LM is independent of years of experience. However, this variable is significant in the group of inactive people and indicates that the odds of remaining inactive versus returning to the LM are 8% lower for each additional year of work experience. This reveals that the work experience of inactive people functions as a protective factor, to some extent providing a greater opportunity to return to the LM.

Although, all the sociodemographic variables of households were not included in the model due to the weakness of their explanatory power; the propensity to work outside the household and the number of individuals in the household were included. In general, there was a positive correlation between the propensity to remain inactive and to work outside.

Therefore, if all other variables are kept constant, the odds of an average individual to remain inactive versus return to the LM is 3.07 times higher if the individual lives in a household that has a low proportion of working individuals as compared to an individual who lives in a household that has a high proportion. This propensity is 1.6 times higher for individuals who live in households with a moderate proportion compared to those who live in households with a high proportion, if the group of inactive individuals is compared to the group who returned to the LM.

Finally, the coefficient of the variable of number of members in the household establishes

that the odds of remaining inactive compared to returning to the LM are 6% lower for each additional individual in the household. This indicates that the greater the number of members in a household, the greater the propensity for inactive individuals to return to the LM. Thus, a large household is an environment that promotes the reincorporation of its members into labor activities. This could be associated with the limited resources that exist in these domestic units (Mier and Terán and Rabell, 2004).

4. DISCUSSION

This study's objective was to investigate the sociodemographic factors related to the propensity for inactive (available) individuals to return or not return to the LM during the COVID-19 health crisis in Mexico. The results show that females are more likely to remain inactive than males, which is supported by the findings of Pacheco and Parker (2001) and Ochoa (2016), demonstrating that female trajectories have a greater number of entries and exits from the LM to inactivity. One possible explanation is that females have been responsible for most of the additional work arising from the pandemic, such as caring for children and the elderly, and the increased burden of domestic work (Weller *et al.*, 2020). This phenomenon was also observed during the 2008-2009 economic crisis (Maldonado, 2010).

These findings demonstrate the impact of the health crisis on the female workforce. The female labor participation rate has significantly increased in recent years, and even the aggregate rate has remained stable as the increase in the female labor force has compensated for the decreases in male participation (Puigvert and Juárez-Torres, 2019). This offers the opportunity to identify the age cohorts of females who remain inactive, given that the younger cohorts are those that have boosted the participation rate in Mexico (Puigvert and Juárez-Torres, 2019).

The results also showed that age was one of the most significant predictors. The older the individuals, the higher the likelihood of their remaining inactive. This result is relevant as the labor force in Mexico has aged at significant rates (Puigvert and Juárez-Torres, 2019), and the greatest labor instability is found in the group of older adults, which is reflected in the high rates of inactivity and unemployment in this population segment (Ochoa, 2016). With respect to adults in general, it should also be noted that the percentage of informal employment is highest in older adults, who, with the health crisis, have been among those most affected (Weller *et al.*, 2020).

In contrast, the level of education was a significant predictor of the propensity for inactive individuals to return to the LM. This finding indicates that there are several direct mechanisms through which education functions to influence the entry into the LM (Ordaz, 2007; Pacheco and Parker, 2001; Ochoa, 2016). Moreover, it is observed that there is a greater concentration of individuals with less formal education in activities that require face-to-face contacts and are not considered essential in the health crisis scenario (Weller *et al.*, 2020); whereas, individuals with less education are those who lack permanent contracts and social benefits (García, 2012).

Unfortunately, the size of the sample did not permit developing separate models for each gender to determine whether the education results were identical for males and females, given that the positive effect of education on the participation rate has only been observed in recent years among females in Mexico,

while this relationship is not striking in males (Puigvert and Juárez-Torres, 2019).

In relation to work experience, the results reveal that this variable functions as a protective factor against inactivity. With this approach, it was possible to determine the work experience outcomes to a certain extent, as had been previously documented in Mexico (Barceinas, 1999, 2002; Morales-Ramos, 2011; Ordaz, 2007). In this regard, it is noted that the squared work experience variable, which represents the life cycle of individuals' productivity, has a great effect and is significant in explaining whether or not inactive individuals return to the LM. It is likely that individuals with less work experience who remain inactive are those who receive a lower income and fewer benefits (Pacheco and Parker, 2001).

The variables according to the structure and composition of the household were mostly significant. Individuals who are inactive and live in household units in which the proportion of working individuals is low—in which there is greater economic dependence—have a greater propensity to return to the LM. Similarly, the greater the number of members in the household, the greater the demographic dependence, and the greater the propensity for inactive people to join the LM.

One possible explanation is that other members of the family are forced to join the LM, either fully or partially, to keep the family income constant (Cassoni, 1991). During the 2008-2009 crisis, 6 out of 10 Mexican households reported an income reduction and having at least one family member joining the LM was one of the survival strategies, whereas others opted for reduction of the expenses or international migration of household members (Coneval and Unicef, 2010).

In this context, it can be inferred that the individuals who join the LM are females, since in Mexico, in periods of crisis, females enter the LM probably as a consequence of the inactivity of the main generator of household income, giving rise to an "added worker effect" (Puigvert and Juárez-Torres, 2019). Moreover, the significant income inequality in Mexican households should be considered (OCDE, 2017), where the tenth decile concentrates 36% of the national income, while the first five deciles capture only 20% (López, 2018).

In general, most people who lost their jobs when the pandemic started in Mexico entered the NEAP (12.7 million people) and are available to work (14 million people). This demonstrates that the population affected by the crisis are waiting for the end of the confinement to return to their previous jobs, whether as a subordinate employee, employer, or self-employed worker. Another part of this population, which is reported as inactive, considers that it is not the most appropriate time to look for work, given the current economic conditions (Esquivel, 2020). These results also remind us that there is a group within the inactive group that has no interest in entering the LM, but there are individuals, who even though inactive, are available to work, so they are not included in the unemployed (Ochoa, 2016).

Finally, the results of this study agree with previous studies which establish that Mexico is characterized by high mobility in the LM, with an increase in the inactive population in periods of crisis (Cassoni, 1991; Samaniego, 2007; García, 2012; Ochoa, 2016; Puigvert and Juárez-Torres, 2019)). One of these studies showed that 23.3% of the labor force had more than one period of inactivity during the 2008-2009 crisis, which indicates that the

employed move more toward inactivity rather than toward unemployment. Furthermore, this study also revealed that 63.8% of the total number of individuals who reported themselves as inactive remained in that condition for a year, while 30% had at least one period of employment (Ochoa, 2016). During the 2008-2009 crisis, the increase in inactivity was the result of the decrease in employment, mainly due to the decrease in formal employment; which means that employment in Mexico is highly procyclical (Leyva and Urrutia, 2018).

According to estimates of the Bank of Mexico, the main factor that makes the inactive population join the LM during periods of the country's economic recovery is job creation (Leyva and Urrutia, 2018). However, the limited creation of employment and the high percentage of informal employment characterize the poor growth of the economy in the decade prior to the health crisis (OCDE, 2017; López, 2018), and this is combined with the rigidity of the current labor law, which becomes a barrier for the creation of jobs required to respond to accumulated lags and new entrants to the LM (García, 2012). For this reason, the incorporation of the inactive population during and after the health crisis is a major challenge in terms of public policies and the country's economy.

5. CONCLUSION

The available inactive population's likelihood of returning to the LM is highly associated with their socioeconomic and sociodemographic characteristics. In this case, although not all causes were addressed, it was possible to determine that gender, age, education, potential work experience, and household composition and structure significantly influence the propensity of the inactive population to return to the LM or to remain inactive during the health crisis in Mexico.

6. LIMITATIONS OF THE STUDY

One of the limitations of this study refers to the type of data used. The ECOVID-19 telephone survey allows for analysis of the impact of COVID-19 on the LM, mainly in the employed, unemployed, and underemployed population, whereas this study focused only on the inactive population, for which, survey information is limited. Therefore, since it was not possible to obtain data that would further detail the context of this population, other aspects related to inactivity were left out.

Another limitation refers to the ECOVID-19 questionnaire. Since the retrospective questions regarding employment conditions, type of employment, economic activity, number of workers in productive units, among other variables, were only directed at the EAP, it was not possible to know the working conditions prior to inactivity.

Its other limitation refers to the measurement of households. The ECOVID-19 provides information on housing, but it is unconducive to knowing the variables concerning the household, whereas this study refers to the household unit based on the variables related to housing.

7. CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

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