

**How to cite this article:**

Azálgara Bedoya, M. (2021). Las relaciones de género y el trabajo de mujeres como factores de riesgo demográficos por la pandemia del COVID-19. *Project, Design and Management*, 3(2), 55-74. doi: 10.35992/pdm.v3i2.710.

**GENDER RELATIONS AND WOMEN'S WORK AS  
DEMOGRAPHIC RISK FACTORS DUE TO THE COVID-19  
PANDEMIC**

**Mauricio Azálgara Bedoya**

Universidad Internacional Iberoamericana (Peru)

[mazalgarab@gmail.com](mailto:mazalgarab@gmail.com) · <https://orcid.org/0000-0002-9097-6917>

**Summary.** Having unleashed the COVID-19 pandemic at the international level, the response of the Peruvian State is to promulgate the Supreme Decree No. 0400-2020-PCM where the State of National Emergency is declared in Peru due to the COVID-19 outbreak. Given the last point, it is necessary to be aware of the impact of COVID-19, in particular, in relation to gender relations and women's work in Peru. The proposed research constitutes an instance where certain statistical artifacts have been generated from a descriptive analysis that allows measuring the impact of COVID-19 on gender relations and women's work. Statistical artifacts result from the operationalization of women's gender and labor relations as demographic risk factors. Operationalization measures: (1) the progress of the pandemic through the number of positive cases for COVID-19; (2) the economic slowdown through the number of positions for women; (3) the advancement of social confinement through the number of activities performed at home or outside of it to obtain an income. The statistical artifacts addressed have their scope for the Peruvian nation during the fourth quarter of 2020 and first quarter of 2021. The proposed research is of interest to observe the behavior of gender relations and women's work regarding the impact of the COVID-19 pandemic.

**Keywords:** gender relations, women's work, impact of COVID-19, operationalization

**LAS RELACIONES DE GÉNERO Y EL TRABAJO DE  
MUJERES COMO FACTORES DE RIESGO DEMOGRÁFICOS  
POR LA PANDEMIA DEL COVID-19**

**Resumen.** Habiéndose desatado la pandemia del COVID-19 a nivel internacional, se tiene que la respuesta del Estado Peruano es la de promulgar el Decreto Supremo N° 0400-2020-PCM donde se declara el Estado de Emergencia Nacional en Perú por el brote del COVID-19. Dado lo anterior es menester tener conocimiento del impacto del COVID-19, en particular, en lo referido a las relaciones de género y trabajo de mujeres en el Perú. La investigación propuesta constituye una instancia donde se han generado ciertos dispositivos estadísticos a partir de un análisis descriptivo que permite medir el impacto del COVID-19 en

las relaciones de género y trabajo de mujeres. Los dispositivos estadísticos resultan de la operacionalización de las relaciones de género y trabajo de mujeres como factores de riesgo demográficos. En la operacionalización se mide: (1) el avance de la pandemia mediante la cantidad de casos positivos por COVID-19; (2) la desaceleración económica mediante el número de puestos de mujeres; (3) el avance del confinamiento social mediante el número de actividades desempeñados en el hogar o fuera de él para obtener un ingreso. Los dispositivos estadísticos abordados tienen su alcance para con la nación peruana durante los trimestres IV de 2020 y I de 2021. La investigación propuesta resulta de interés para observar el comportamiento de las relaciones de género y trabajo de mujeres respecto del impacto de la pandemia COVID-19.

**Palabras clave:** relaciones de género, trabajo de mujeres, impacto de COVID-19, operacionalización

## **Introduction**

This document comes from the research topic entitled "Impact of COVID-19 on gender relations and women's work in Peru," which has been promoted by the National Institute of Statistics and Informatics (INEI) in Peru through the 1st and 2nd National Call for Research in 2021, which seeks to promote the databases of the National Censuses and Surveys that this Peruvian public entity executes. Given the topic is that the proposed research seeks to operationalize gender relations and women's work as demographic risk factors to measure the impact of COVID-19 on both gender relations and women's work.

## **Method**

### ***Basis of the problem***

A State of National Emergency has been declared in Peru by Supreme Decree No. 044-2020-PCM due to the serious circumstances affecting the life of the Peruvian nation as a result of the outbreak of COVID-19. Among others, mandatory social isolation (quarantine) and restrictions on commercial activities, cultural activities, establishments, and recreational activities, hotels, and restaurants were ordered; however, essential or critical activities were allowed to continue under strict security measures. Similarly, Supreme Decree No. 80-2020-PCM has been issued approving the resumption of economic activities in a gradual and progressive manner within the framework of the declaration of a National Sanitary Emergency in Peru. The above provisions as a whole caused Peru to have a negative inter-annual variation of 11.1% of its GDP within the framework of a joint decrease of 6.6% of GDP in 2020 on the part of South American countries where it is evident that Peru has had an economy during the year 2020 that has added to the slowdown in world economic activity (Dirección de Promoción Minera, 2021). The above results in the contextualization of the health emergency due to COVID-19 as a factor that originates structural inequalities, deficiencies, and fragilities in the health and education sectors, in addition to reversing the progress in the inclusion of women in the labor market to levels of previous periods. Given the above, the violation of gender relations and women's work is implied by the COVID-19 pandemic.

Given the above, it is considered necessary to operationalize gender relations and women's work as demographic risk factors during the fourth quarter of 2020 and the first quarter of 2021, given that statistical devices are required to measure the impact of COVID-19 on these factors. In other words, it is necessary to operationally develop

gender relations and women's work as demographic risk factors during the reference period to measure the impact of the pandemic in terms of its epidemiological advance and the consequent slowdown of economic activities and advance of social confinement. It is perceived that the operational development of the demographic risk factors in question would be the responsibility of governmental authorities and business associations because such development would be linked to a certain demographic complexity, which requires expert judgment. The operational development of the demographic risk factors in question is thought not to have been undertaken to date mainly due to the prioritization of the emergency approach over the economic revival approach, the effects of the economic slowdown, and/or social conflicts. It is perceived important to address the issue of operational development of demographic risk factors in question given that Peruvian operations happen to be the economic engine of Peru. The operational development of the demographic risk factors in question is considered relevant given that a greater survey and knowledge of the female population, both employed and unemployed, is required. It is thought that it is possible to carry out the operational development of the demographic risk factors in question by cross-referencing data and information from certain national surveys with open data from the Ministry of Health (MINSA) - COVID-19 with respect to COVID-19 positive cases; the national surveys for cross-referencing data would be the following: (1) National Household Survey (ENAHO); (2) Demographic and Family Health Survey; (3) Permanent Employment Survey.

- The formulation of the problem (Proposes a meaningful question that justifies the research)

How has the COVID-19 pandemic impacted women's gender and work relations during the fourth quarter of 2020 and the first quarter of 2021?

- Systematization of the problem (these are the sub-questions that will help to answer the significant question)

How has the COVID-19 pandemic impacted women's work in terms of the number of healthy women and the number of jobs for women?

How has the COVID-19 pandemic impacted gender relations in terms of the number of infected household members and their level of interactivity?

### ***Research objectives***

#### *Overall objective*

To operationally develop gender relations and women's work as risk factors for the COVID-19 pandemic in Peru during the fourth quarter of 2020 and the first quarter of 2021.

#### *Specific Objectives (Specific purposes by which the overall objective can be achieved)*

Operationally develop women's work as a national risk factor due to the COVID-19 outbreak, during the fourth quarter of 2020 and first quarter of 2021, linking the advance of COVID-19 infections and the economic slowdown.

Operationally develop gender relations as a national-level risk factor due to the COVID-19 outbreak, during the fourth quarter of 2020 and first quarter of 2021, linking the progression of COVID-19 infections and the acceleration of social confinement.

### ***Research Justification***

#### *Practical motivations (research supports problem solving for decision making)*

In the Peruvian environment, secondary information is required for decision-making related to gender relations and women's work, in particular, where these are referred to as risk factors due to the COVID-19 pandemic. The secondary information to be provided would contribute as a support tool for decision-making linked to compliance with Supreme Decree 080-2020-PCM where the central government of Peru approves the resumption of economic activities in 4 phases. Having promulgated Supreme Decree No. 184-2020-PCM, which establishes measures for a new social coexistence that promotes physical or bodily isolation while activities are resumed with discipline and prioritizing health, it is presumed to be of relevance to contribute additionally to this new social coexistence with the identification of practices linked to the risk factors in question in the different national surveys that complicate them or not.

*Motivations of a methodological nature (contributes to the use or creation of research instruments and models)*

It is presumed that the proposed research would allow the detection of risk groups that can be identified dimensionally by means of comorbidities (e.g. obesity, cardiovascular diseases, diabetes mellitus, among others), demographic aspects (e.g. age, kinship relationship, lifestyle, occupational exposure, among others), among others.

*Theoretical motivations (allows to verify, reject, or provide theoretical propositions of the subject of study)*

The proposed research contributes to increase the complexity in the management of the results of certain large-scale research. The results of the proposed research serve to increase the complexity of managing the results of the National Household Survey (ENAHO), Demographic and Family Health Survey, and Permanent Employment Survey with respect to certain risk factors resulting from the living conditions of the population at risk for the COVID-19 pandemic.

The proposed research contributes to the sufficiency of certain legal devices in Peru. First, the proposed research would serve to verify the economic generalization carried out by means of Supreme Decree 080-2020-PCM, which approves the resumption of economic activities in 4 phases, which is supposed to be effective for all economic activity, with exceptions, and its corresponding complexity with respect to women's work. Additionally, the proposed research would contribute to typify the referred new social coexistence determined by means of Supreme Decree N° 184-2020-PCM given that it is presumed that at a national level there is not only one type of coexistence but a diversity of coexistence, which would imply the need for a corresponding typification of the new social coexistence.

***Theoretical Framework (It locates the investigation within the set of existing theories with the purpose of specifying in which current of thought it is inscribed and to what extent it means a contribution or is complementary)***

*Background of the proposed research*

To date, no research work has been recorded as background for the proposed research; however, it can be affirmed that the information to be generated in the research is relatively included in research work that uses the following national surveys as a source: (1) National Household Survey (ENAHO); (2) Demographic and Family Health Survey; (3) Permanent Employment Survey. The research works that are highly compatible with the proposed research are the works of Gutiérrez et al. (2020) and Suárez et al. (2020) that develop living conditions of the population at risk for the COVID-19 pandemic and risk factors associated with COVID-19 complications, respectively.

### *Legal framework*

The proposed research is contextualized in the Peruvian legal framework in relation to the promulgation of Supreme Decrees N° 044-2020-PCM, N° 080-2020-PCM and N° 184-2020-PCM, where Peru is declared in a State of National Emergency due to the outbreak of COVID-19, the economic reactivation in 4 phases is approved, and measures for the new social coexistence are established, respectively. The results of the proposed research would contribute, mainly, with respect to deepening in what refers to the vulnerable population in particular, in their quality as participants, in gender relations, and their participation in women's work.

Given that women's work and gender relations are linked as issues to gender equality, the proposed research is legally framed by Supreme Decree 008-2019-MIMP that approves the National Policy on Gender Equality.

### *Peruvian institutional framework*

The proposed research is based on certain reports of the National Institute of Statistics and Informatics (INEI). First, given that we intend to inquire about gender relations and women's work, it is thought that the information provided by households at the national level through the National Household Survey (ENAHO) 2019 would inferentially describe the target population since the latter survey claims to disseminate the living conditions of the population at risk of the COVID-19 pandemic (Gutierrez et al., 2020). Secondly, in view that it is intended to inquire about gender relations and women's work, it is considered that the information inquired is partially described by certain risk factors associated with COVID-19 complications, information related to the object of the Demographic and Family Health Survey (ENDES) 2018-2019 (Suárez et al., 2020).

### *International Institutional Framework*

Given the international context of the COVID-19 pandemic, it has been seen convenient to contextualize the proposed research with global documents that refer to certain trends or patterns of behavior common to all nations. The proposed research is located within the gender implications of health, education, economic conditions, and citizen security proposed by De Paz et al. (2020), which is addressed as a development of gender dimensions. Additionally, the proposed research finds its context in both macroeconomic and microeconomic facts that are exposed among others through global institutions such as the World Bank (2020) that exposes determining factors of the COVID-19 epidemic, such as macroeconomic and microeconomic difficulties of the population; the microeconomic difficulties in question as a determining factor would mainly frame and/or orient the gender dimensions to be addressed in the proposed research. The World Bank (2020) exposes the lack of resources when facing confinements and quarantines, informality, labor migration, and the problem of economic transfers.

The COVID-19 pandemic has impacted gender relations and women's work in terms of their productivity, causing it to slow down; given the above, the proposed research is convenient to frame it within internationally accepted contents regarding the implications of COVID-19 on productivity, such as the contents proposed by Dieppe (2021), which state that the low productivity due to COVID-19 would be linked to the following: (1) a slowdown in investments and foreign trade; (2) erosion of human capital and a shift in labor markets; (3) slowdown in labor reallocation; (4) a heavy debt burden. On the other hand, Dieppe (2021) argues that productivity has been relatively positively impacted by the following: (1) positive organizational and technological changes; (2)

diversity and resilience in supply chains; (3) improvements in education; (4) financial development.

The proposed research is intended to be framed in contents referred to the evaluation of the impact of the COVID-19 pandemic in the business world given that it is developed within the framework of women's work. Given the above, it is considered important to include in the theoretical framework of the proposed research the contents proposed by Apedo-Amah et al. (2020) about the impact of COVID-19 on businesses in developing countries where nearly 100,000 businesses have been evaluated to inquire about the COVID-19 shock in terms of its magnitude and distribution. The empirical contents of Apedo-Amah et al. (2020) are perceived with some degree of similarity as they refer that the COVID-19 pandemic has generated among others labor adjustments, financial constraints, increased digital solutions, and uncertainty in the future.

It is considered relevant to use as international framework of the proposed research referential documents of the International Labour Organization by the social purpose of the institution in question. It has been found important to have the contents about labor trends for the year 2021 disclosed by the International Labour Organization (2021). Likewise, it has been seen convenient to include within the theoretical framework contents related to the application of labor standards in times of crisis such as the COVID-19 pandemic that discloses the International Labour Organization (2020). In terms of trends, the International Labour Organization (2021) mentions that the COVID-19 pandemic constitutes a disruption in the work environment that will take time to disappear. The International Labour Organization (2020) reports that the COVID-19 pandemic has undermined the progress of equality between men and women in the world of work, and women are perceived to have been more affected in terms of job loss.

#### *Framework for research methodology*

It is convenient to use literature that refers to both qualitative and quantitative research methodologies and also mixed; given the above, it is intended to frame the proposed research within the research methodologies proposed by Hernandez et al. (2010) since the contents that are disclosed refer to some that belong to different sciences and disciplines in the field of research. Additionally, it is convenient to include in the theoretical framework bibliography of research methodology specific to the field of business because it addresses the work of women; exposed the above, it is convenient to include the guidelines for the research of case studies proposed by Dul and Hak (2008). Similarly, given that the proposed research refers to the review of various contents, it is considered relevant to include in its theoretical framework literature that refers in a focused way to the literature review; having said this, the proposed research is framed in the guidelines for the research methodology of traditional and systematic reviews and meta-analysis proposed by Jesson et al. (2011) since it integrates a multidisciplinary approach.

Since research methodologies are important as a reference for the proposed research, it is considered important to include certain documents as reference reports to verify the functionality of the data collection instruments; this is linked to the inclusion of the report prepared by Cucagna and Romero (2021) where they investigate the gender impacts of COVID-19 on the labor market in Latin America and the Caribbean through high-frequency telephone surveys.

A research methodology that is useful for the proposed research is that proposed by Maliszewska et al. (2020) that seeks to simulate a potential impact of COVID-19 on gross domestic product (GDP) using a global standard equilibrium computational model; the model represents the COVID-19 shock as an underutilization of labor and capital, an

increase in foreign trade costs, a drop in travel services, variations in demand for face-to-face services (Maliszewska et al., 2020). The model proposed by Maliszewska et al. (2020) is thought to serve as a reference research material for the determination of determinants of the COVID-19 pandemic impact on gender relations and women's work.

### ***Hypothesis Formulation and Operationalization***

*Formulation (Hypotheses are stated in a form that allows for verification)*

H<sub>1</sub> : The higher the number of cases of COVID-19 infection, the lower the number of women's jobs.

H<sub>2</sub> : The greater the economic slowdown due to the COVID-19 pandemic, the lower the number of women's jobs.

H<sub>3</sub> : The greater the number of cases of COVID-19 infection, the greater the interactivity in gender relations.

H<sub>4</sub> : The greater the acceleration of social confinement due to the COVID-19 pandemic, the greater the interactivity in gender relations.

*Operationalization (The variables that define the hypotheses are broken down into indicators).*

Table 1  
*Operationalization*

| Dimension | Risk Factor      | Indicator  | Operationalization of indicators  |
|-----------|------------------|--|---|
| Economic  | Women's Work     | COVID-19 Pandemic Update                                 | Number of women infected with COVID-19  |
|           |                  | Economic slowdown due to COVID-19 pandemic               | Quarterly percentage change in the ratio of persons who were engaged in an income-earning activity at home or outside the household to those who were not.  |
|           | Gender relations | COVID-19 Pandemic Update                                 | Number of people infected with COVID-19   |
|           |                  | Accelerating Social Confinement due to COVID-19 Pandemic | Variation in the number of instances of interaction in gender relations.<br>An instance of interaction is an experience in the home or outside the home that has an impact on the family system in terms of social, economic, or emotional aspects. |

### ***Methodological Aspects***

*Type of study: Descriptive and explanatory study.*

In the first place, the type of study to be carried out is descriptive. This is based on the fact that the research proposal describes the impact of the COVID-19 pandemic on women's work and gender relations. Based on what has been described, the aim is to use statistical devices as indicators to measure the impact of COVID-19 on women's work and gender relations.

Secondly, the type of study is explanatory. This is based on the fact that the aim is to contrast correlational hypotheses.

### ***Research Method(s)***

*Observation:* In the proposed research, use is made of observation of women and every participating member of a household in the field of work and home, respectively. The public in question is observed since the primary data are extracted from these segments of the population. The observation will be carried out using primary sources of information from certain national surveys and open data from the Ministry of Health (MINSA).

*Analysis and synthesis:* Given that we intend to relate events in the proposed research such as the advance of the pandemic, economic slowdown, and acceleration of confinement, it is convenient to apply a methodological process of synthesis for the formulation of theories. Likewise, given that the advance of the pandemic, economic slowdown, and acceleration of confinement are phenomena that result from certain determining factors, it is useful to apply a methodological process of analysis to generalize through theories.

### ***Sources and techniques of data collection***

*Primary sources:* First-hand data are obtained from the following: (1) National Household Survey (ENAHU); (2) Demographic and Family Health Survey; (3) Permanent Employment Survey; (4) Open data from the Ministry of Health (MINSA) regarding the number of positive COVID-19 cases.

*Secondary sources:* Second-hand data corresponds to World Bank Open Data for the female workforce as a percentage of the total workforce in Peru from 1990 to 2019. Information on workplace pandemic management proposed by Fernandez (2020), Alegre (2020), and EU-OSHA (2020) is also included.

### ***Information processing***

*Statistical analysis techniques:* The following analyses are intended to be used: (1) descriptive analysis; (2) inferential analysis; (3) causal analysis.

*Econometric analysis techniques:* In the case that the primary data collection is sufficiently representative, a time series analysis is intended.

### ***Innovative Nature of the Proposal***

The proposed research is considered innovative since it is carried out during the National State of Emergency due to the COVID-19 pandemic and its objective is to study the national population that develops during the pandemic; the aforementioned makes the research have a high index of originality with respect to other works. To date, there is no national work that refers to measurements of the impact of COVID-19 on women's work and gender relations.

The proposed research constitutes one of the national research works in the socioeconomic field that is oriented to generate a synergy of efforts for the achievement

of the 5th sustainable development goal proposed by the United Nations at the international level, i.e. the gender equality goal. It is worth mentioning that to date not much effort has been devoted to this goal.

### ***Impact of the research on public policy***

The proposed research constitutes an effort to achieve compliance with policies set out in Supreme Decree No. 008-2019-MIMP, which approves the National Gender Policy. It is worth mentioning that the information to be generated constitutes a means of support to fight against structural discrimination against women and its effects; in particular, it is expected to contribute to reduce what is exposed in the Supreme Decree No. 008-2019-MIMP as the violation of the right to access and participation of women in decision-making spaces and the violation of economic and social rights. The information to be generated is intended to be an input of information for the desired national care system with a gender perspective, which is set out in Supreme Decree No. 008-2019-MIMP as the main alternative solution to the public problem of gender equality and structural discrimination against women.

The proposed research contributes to providing privileged information for the effective resumption of activities mandated through the enactment of Supreme Decree No. 080-2020-PCM. Similarly, it is considered that the information generated by the proposed research would contribute to the formulation of draft legislation for extraordinary attention to women's work and gender relations due to the impact of the COVID-19 pandemic.

### ***Limitations of the research proposal***

The proposed research has the following limitations:

#### *From the commissioning*

The proposed research is conducted by personnel from outside the National Institute of Statistics and Informatics (INEI); however, it is an outsourced research delimited and approved by the public entity in that the research topic is raised by the National Institute of Statistics and Informatics (INEI) in the 1st and 2nd National Call for Research of 2021 (Instituto Nacional de Estadística e Informática, 2021).

#### *Institutionalism*

Given that the responsible researcher lacks public institutionalization in view of the fact that he/she does not belong contractually to a public entity whose interests are aligned with the object of the research, the research is considered to be impartial and not institutionally biased through gender equality policies.

**Work Schedule**

| #                            | Activity<br>Description                                      | Month 1 |        |        |        | Month 2 |        |        |        | Month 3 |         |         |         |
|------------------------------|--|---------|--------|--------|--------|---------|--------|--------|--------|---------|---------|---------|---------|
|                              |  | Week 1  | Week 2 | Week 3 | Week 4 | Week 5  | Week 6 | Week 7 | Week 8 | Week 9  | Week 10 | Week 11 | Week 12 |
| 1                            | Recruitment responsible for research and office rental       | ■       |        |        |        |         |        |        |        |         |         |         |         |
| 2                            | License purchase 1 (Office Package)                          | ■       |        |        |        |         |        |        |        |         |         |         |         |
| 3                            | License purchase 2 (Statistical Package)                     | ■       |        |        |        |         |        |        |        |         |         |         |         |
| 4                            | Laptop and printer rental                                    | ■       |        |        |        |         |        |        |        |         |         |         |         |
| 5                            | Researcher recruitment 1                                     | ■       |        |        |        |         |        |        |        |         |         |         |         |
| 6                            | Researcher recruitment 2                                     | ■       |        |        |        |         |        |        |        |         |         |         |         |
| 7                            | Quantitative Research  |         | ■      | ■      | ■      | ■       | ■      | ■      | ■      | ■       | ■       | ■       | ■       |
|                              | Quantitative problem statement                               |         | ■      | ■      | ■      | ■       | ■      | ■      | ■      | ■       | ■       | ■       | ■       |
|                              | Literature review and theoretical framework construction     |         | ■      | ■      | ■      | ■       | ■      | ■      | ■      | ■       | ■       | ■       | ■       |
|                              | Defining the scope of the research                           |         | ■      | ■      | ■      | ■       | ■      | ■      | ■      | ■       | ■       | ■       | ■       |
|                              | Formulating hypotheses                                       |         | ■      | ■      | ■      | ■       | ■      | ■      | ■      | ■       | ■       | ■       | ■       |
|                              | Choosing the research design                                 |         | ■      | ■      | ■      | ■       | ■      | ■      | ■      | ■       | ■       | ■       | ■       |
|                              | Population management  |         | ■      | ■      | ■      | ■       | ■      | ■      | ■      | ■       | ■       | ■       | ■       |
| Quantitative data collection |  |         | ■      | ■      | ■      | ■       | ■      | ■      | ■      | ■       | ■       | ■       |         |
| Quantitative data analysis   |  |         |        | ■      | ■      | ■       | ■      | ■      | ■      | ■       | ■       | ■       |         |
| Quantitative process report  |  |         |        |        | ■      | ■       | ■      | ■      | ■      | ■       | ■       | ■       |         |
| 8                            | Feedback and report approval                                 |         |        |        |        |         | ■      | ■      | ■      | ■       | ■       | ■       | ■       |
| 9                            | Report 1/2   |         |        |        |        |         |        | ■      | ■      | ■       | ■       | ■       | ■       |
| 10                           | Observation survey   |         |        |        |        |         |        |        | ■      | ■       | ■       | ■       | ■       |
| 11                           | Qualitative Research   |         |        |        |        |         | ■      | ■      | ■      | ■       | ■       | ■       | ■       |
|                              | Problem statement, literature review, hypothesis formulation |         |        |        |        |         | ■      | ■      | ■      | ■       | ■       | ■       | ■       |
|                              | Population management  |         |        |        |        |         | ■      | ■      | ■      | ■       | ■       | ■       | ■       |
|                              | Qualitative data collection and Qualitative analysis         |         |        |        |        |         | ■      | ■      | ■      | ■       | ■       | ■       | ■       |
|                              | Qualitative research process design                          |         |        |        |        |         | ■      | ■      | ■      | ■       | ■       | ■       | ■       |
| Quantitative process report  |  |         |        |        |        |         | ■      | ■      | ■      | ■       | ■       | ■       |         |
| 12                           | Feedback and report approval                                 |         |        |        |        |         |        |        |        | ■       | ■       | ■       | ■       |
| 13                           | Report 2/2   |         |        |        |        |         |        |        |        |         | ■       | ■       | ■       |
| 14                           | Observation survey   |         |        |        |        |         |        |        |        |         |         | ■       | ■       |
| 15                           | Final report delivery (Final Report)                         |         |        |        |        |         |        |        |        |         |         |         | ■       |

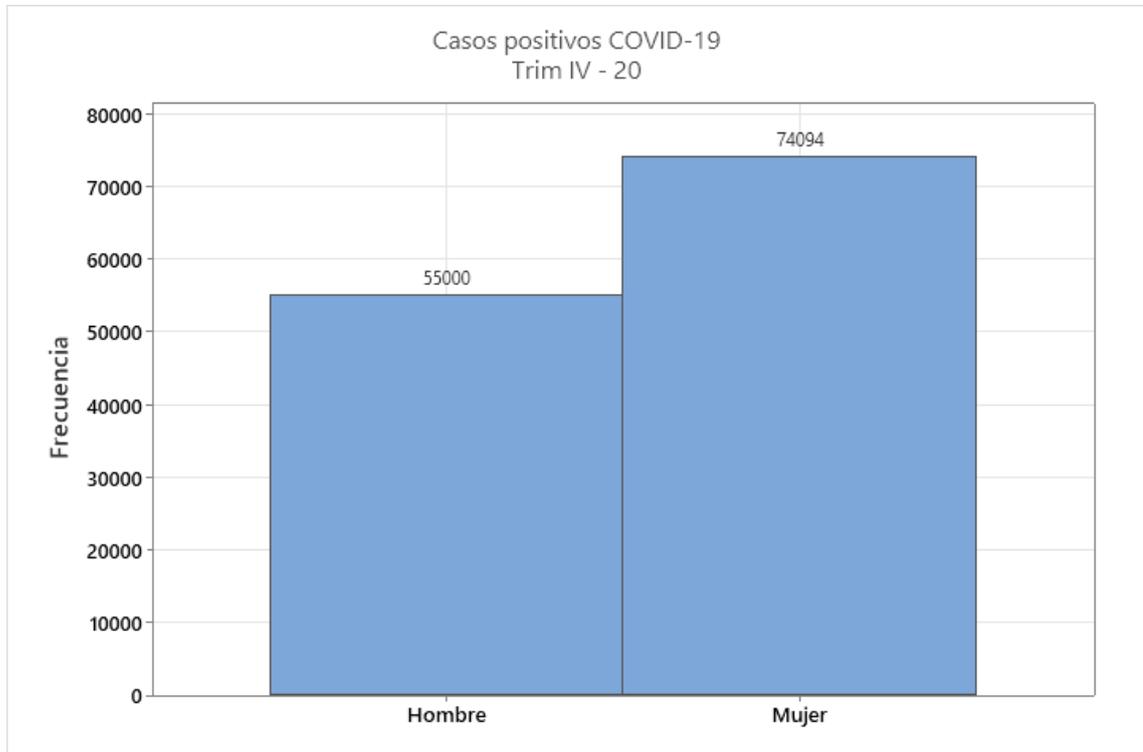
*Figura 1.* Work Schedule

*Note:* Source: Own elaboration

## Results

### *COVID-19 positive cases*

There is an increase in COVID-19 positive cases, however, while the male affected population decreases, the female affected population increases from the fourth quarter of 2020 to the first quarter of 2021.



*Figure 1.* COVID-19 positive cases - Fourth quarter of 2020

*Note.* Source: National Open Data Platform (2021), COVID-19 Open Data in Ministry of Health (MINSA).

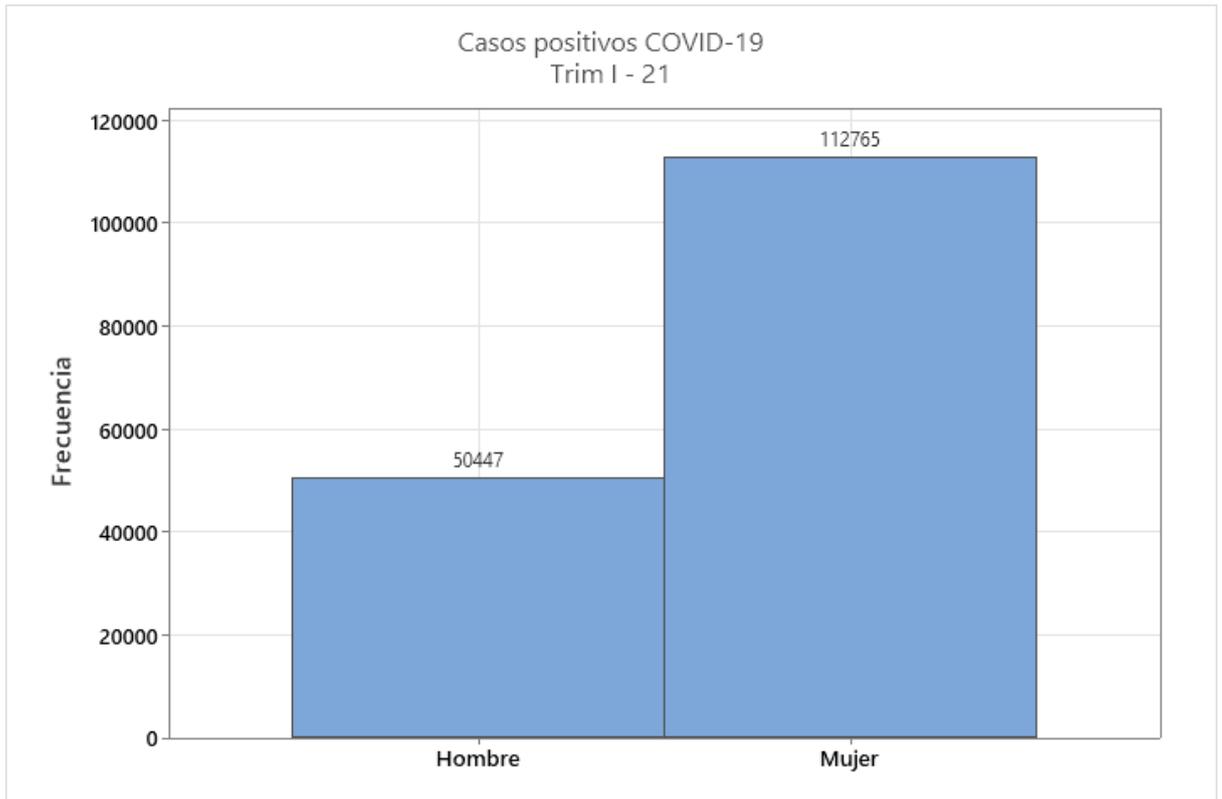


Figure 2. COVID-19 Positive Cases - First quarter of 2021

Note. Source: National Open Data Platform (2021), COVID-19 Open Data in Ministry of Health (MINSA).

### ***Economic Slowdown and Women's Work***

The change in the ratio of the number of women who performed any task to the number of women who did not perform a task measures women's work during the economic slowdown by COVID-19. In the fourth quarter of 2020 we have a value of  $455 / 3116 \approx 0.1460$ , and in the first quarter of 2021 we have a value of  $461 / 2413 \approx 0.1910$ . The increase in the ratio in question implies and evidences the increase in women's work during the economic slowdown by COVID-19.

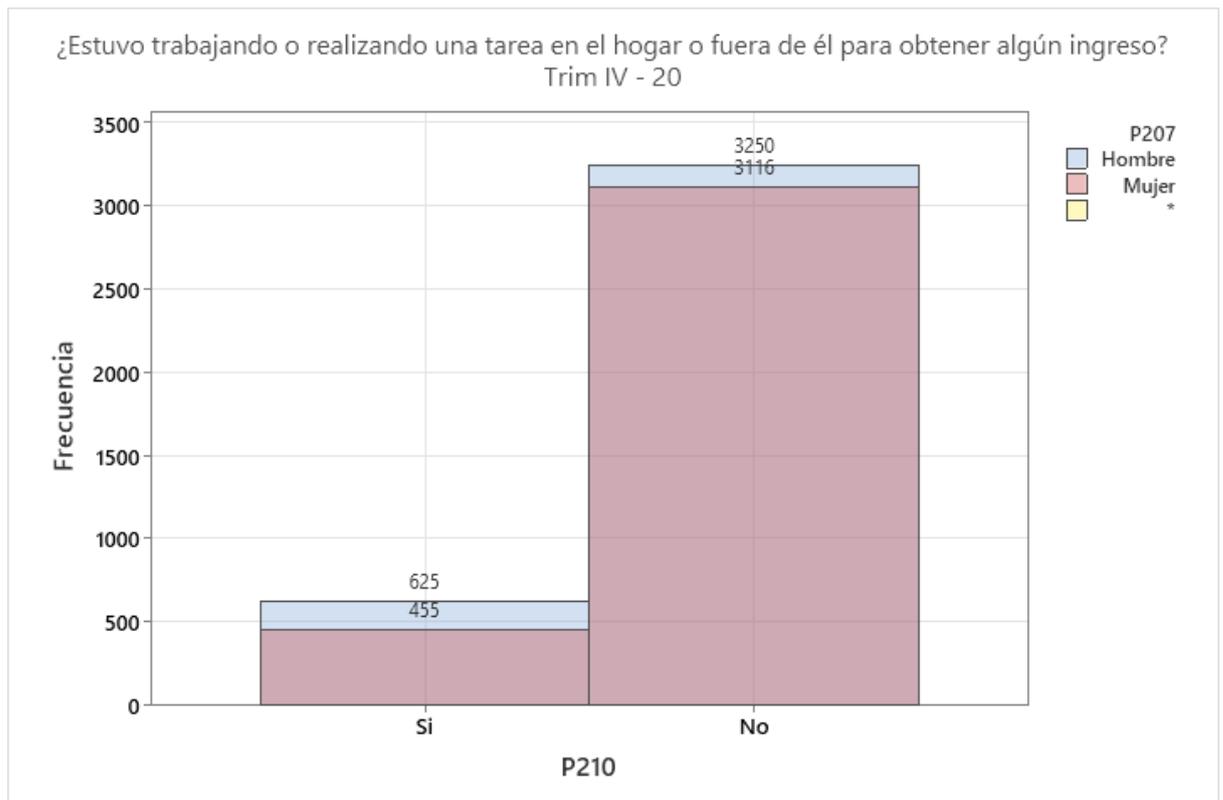


Figure 3. Task performed at home or outside the home to earn an income

Note. Source: National Institute of Statistics and Informatics (INEI) (2020), National Household Survey (ENAH) 2020.

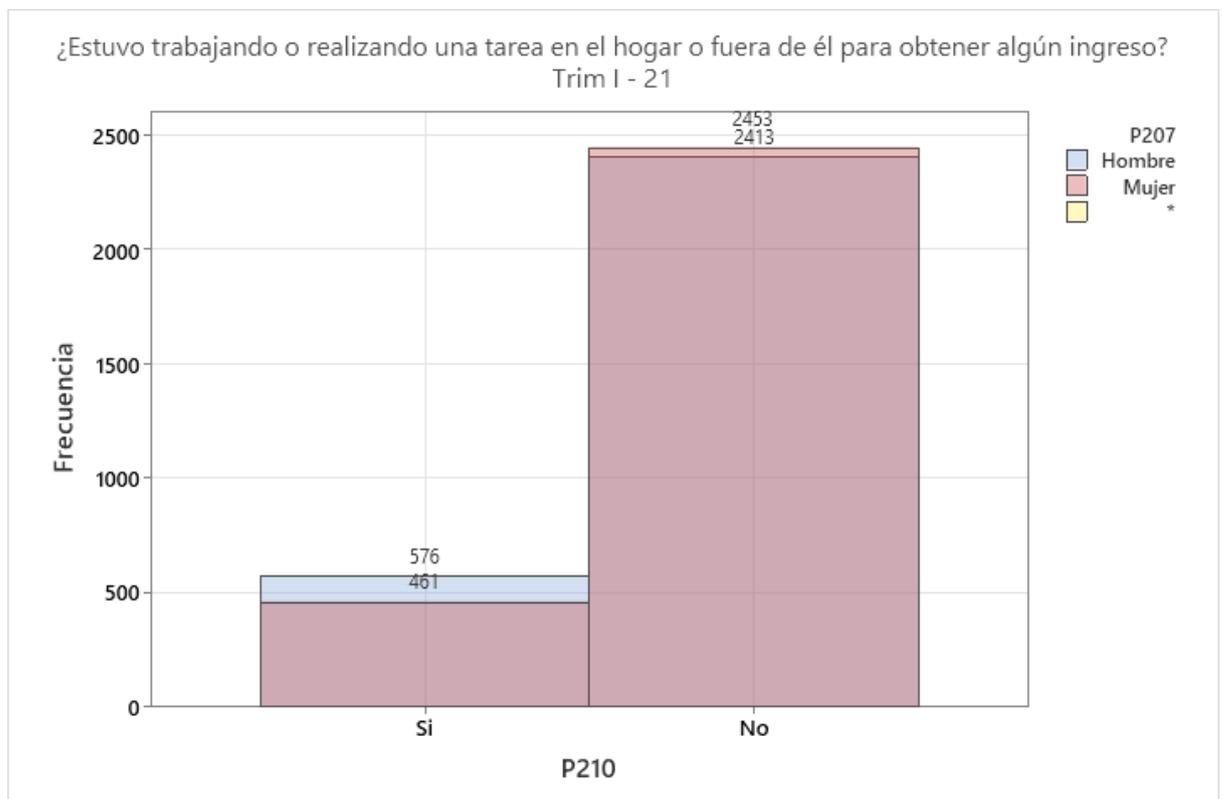
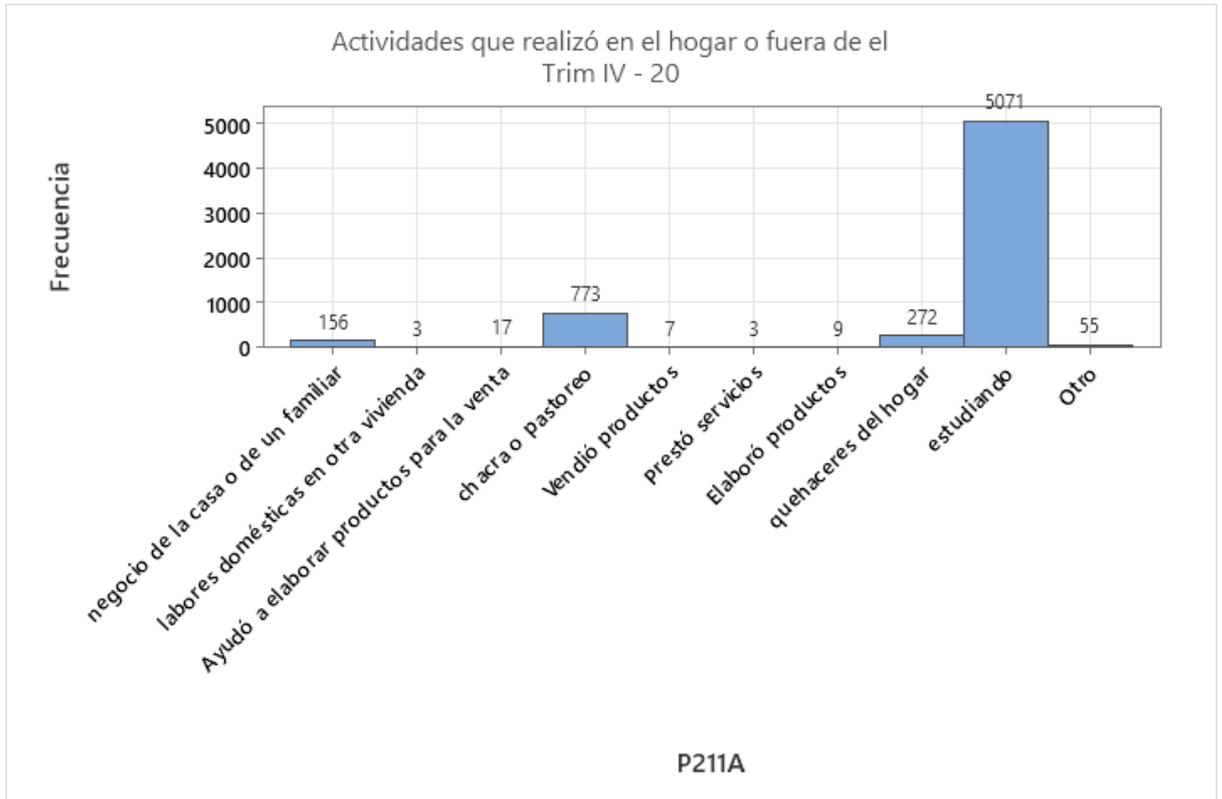


Figure 4. Task performed at home or outside the home to earn an income

Note. Source: National Institute of Statistics and Informatics (INEI) (2021), National Household Survey (ENAH) 2021.

### *Accelerating social confinement and interactivity in gender relationships*

There is a decrease in the activities registered, which may imply greater confinement. In the fourth quarter of 2020, 6,366 activities were recorded, while in the first quarter of 2021, 4,866 were recorded. The variation in activities carried out at home or outside the home translates into a variation in the number of instances of interaction in gender relations.



*Figure 5. Activities carried out at home or outside the home to earn an income*

*Note.* Source: National Institute of Statistics and Informatics (INEI) (2021), National Household Survey (ENAH) 2021.

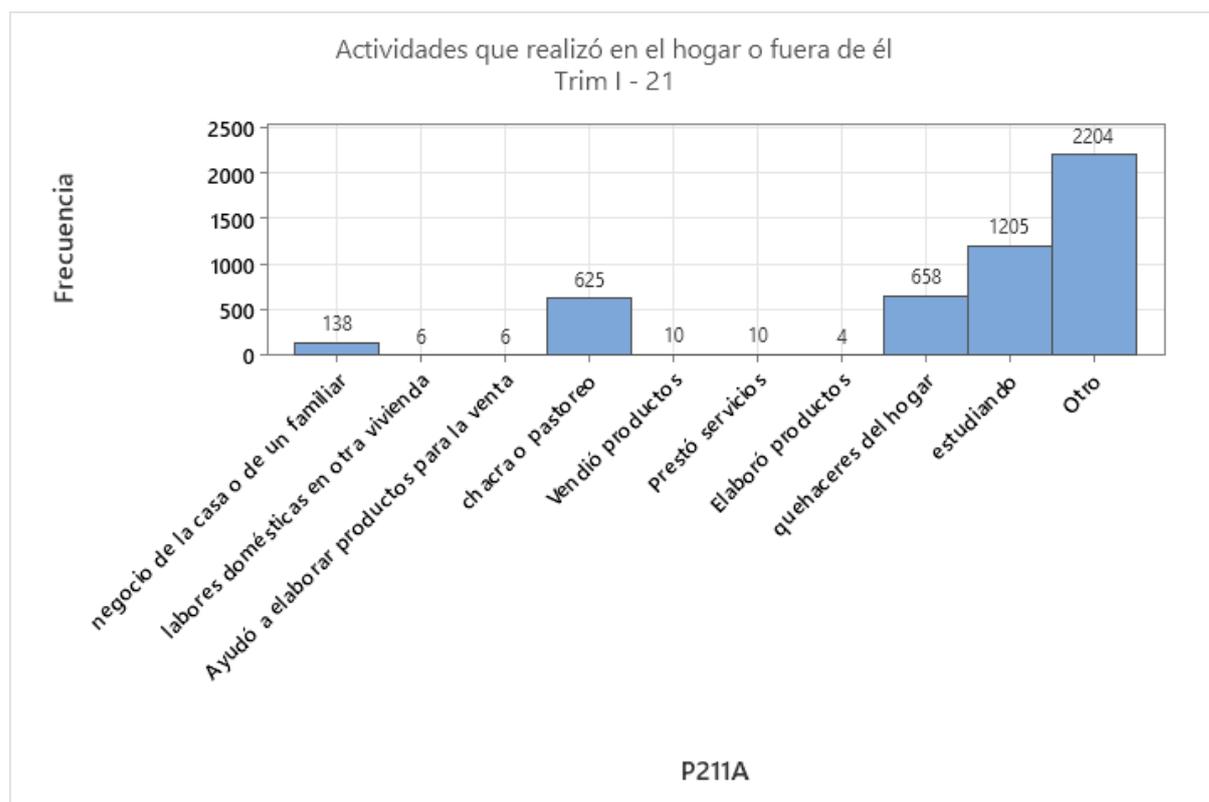


Figure 6. Activities carried out at home or outside the home to earn an income

Note. Source: National Institute of Statistics and Informatics (INEI) (2021), National Household Survey (ENAHU) 2021.

## Discussion and Conclusions

### Conclusions

It is indeed required to operationalize gender relations and women's work as demographic risk factors during the fourth quarter of 2020 and first quarter of 2021 as statistical devices to measure the impact of the COVID-19 pandemic. In particular, the progress of COVID-19 can be measured by the increase in COVID-19 positive cases. In addition, the economic slowdown is not necessarily measured by the number of tasks, since in the reference period there is an increase in tasks during the economic slowdown reported in the media. On the other hand, the acceleration of social confinement can be measured by measuring the variation in the number of activities done at home or outside the home from quarter to quarter.

The findings mentioned above, that is, those related to the statistical devices detected, constitute useful tools for public entities to observe the behavior of COVID-19's impact on women's work and gender relations.

### Hypothesis testing

According to the findings, it is not explicitly verified that the higher the number of positive cases for COVID-19, the lower the number of female jobs. It has been detected as a variation between the fourth quarter of 2020 and the first quarter of 2021 that the activities of the female public have grown, so it could be inferred that there has been an increase in female jobs; however, along with the increase in female jobs, there is an increase in COVID-19 positive cases in the female public.

According to the findings, it appears that the economic slowdown due to the COVID-19 pandemic would not be linked to the decrease in the number of women's jobs. Given that the economic slowdown is asserted by all media, its existence is not questioned. The national statistics show that between the fourth quarter of 2020 and the first quarter of 2021, the number of tasks in the home or outside the home to earn an income have increased despite the economic slowdown, which shows the correlation between the economic slowdown and the number of jobs.

It has not been found that the increase of COVID-19 positive cases is linked to the increase of interactivity in gender relations according to the findings; this is evidenced by the decrease of activities registered at home or outside the home to obtain an income.

It has not been found that the greater acceleration of social confinement translates into an increase in interactivity in gender relations according to the findings. What is found is that the acceleration in social confinement would be linked to the decrease in interactivity in gender relations since there is a decrease in the activities recorded at home or outside the home between the fourth quarter of 2020 and the first quarter of 2021.

### ***Recommendations***

It is recommended to use the results and findings of the proposed research only to observe the behavior of the positive cases by COVID-19 the economic slowdown and women's work and the acceleration of social confinement and interactivity in gender relations; this is based on the fact that the study period is relatively short since only the six-monthly variation between the fourth quarter of 2020 and the first quarter of 2021 is analyzed.

It is recommended to carry out the proposed research in terms of operationalize women's work and gender relations as demographic risk factors using a longer time period. The study period could include the years 2020 and 2021 for a better appreciation of the behavior of certain variables. Nevertheless, it is emphasized that the benefit of the proposed research lies in the promptness of its issuance and in its quality of showing the behavior of variables at a quarterly level.

It is recommended that the results and findings be considered in the elaboration of public and private policies regarding women's work and gender relations, as they can serve as input for evidence-based decision-making. In particular, the results apply to achieving gender equality.

### **References**

- Alegre Bueno, M. (2020). Vuelta al trabajo y las medidas preventivas post COVID-19. *Gestión Práctica de Riesgos Laborales*, 183, 51–53.
- Apedo-Amah, M. C., Avdiu, B., Cirera, X., Cruz, M., Davies, E., Grover, A., & Tran, T. T. (2020). *Unmasking the Impact of COVID-19 on Businesses: Firm Level Evidence from Across the World*. World Bank.
- Banco Mundial. (2020). *La economía en los tiempos del Covid-19 | Informe Semestral de la Región América Latina y el Caribe*. Oficina del Economista Jefe para América Latina y el Caribe y la Práctica Mundial de Macroeconomía, Comercio e Inversión | Banco Mundial.
- Cucagna, M. E., & Romero Haaker, F. J. (2021). *The Gendered Impacts of COVID-19 on Labor Markets in Latin America and the Caribbean (Spanish)*. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/228601614807224809/the-gendered-impacts-of-covid-19-on-labor-markets-in-latin-america-and-the-caribbean>

- de Paz, C., Muller, M., Muñoz Boudet, A. M., & Gaddis, I. (2020). *Gender dimensions of the COVID-19 pandemic*. World Bank Group.
- Dirección de Promoción Minera. (2021). *2020 Anuario Minero | Reporte Estadístico*. Ministerio de Energía y Minas.
- Dieppe, A. (2021). *Global Productivity | Trends, Drivers and Policies*. World Bank Group.
- Dul, J., & Hak, T. (2008). *Case Study Methodology in Business Research* (1st ed.). Elsevier Ltd.
- EU-OSHA. Minimizar la exposición a la COVID-19 en el trabajo. (2020). *Gestión Práctica de Riesgos Laborales*, 185, 75–76.
- Fernández, R. (2020). Gestión de la pandemia causada por el virus COVID-19 en los centros de trabajo. *Gestión Práctica de Riesgos Laborales*, 180, 22–32.
- Gutiérrez, C., Castro, Z., Berrocal, L., & Manayay, E. (2020). *Perú: Condiciones de vida de la población en riesgo ante la pandemia COVID-19 | Encuesta Nacional de Hogares - ENAHO 2019*. Instituto Nacional de Estadística e Informática (INEI).
- Hernández, R., Fernández, C., & Baptista, M. (2010). *Metodología de la Investigación* (5ta ed.). McGraw-Hill / Interamericana Editores, S.A. de C.V.
- Instituto Nacional de Estadística e Informática. (2021). *2da Convocatoria Nacional de Investigación, 2021 – Bases de Convocatoria*. Instituto Nacional de Estadística e Informática. <https://www.inei.gob.pe/media/cide/SEGUNDA-CONVOCATORIA2021.pdf>
- Jesson, J. K., Matheson, L., & Lacey, F. M. (2011). *Doing Your Literature Review | Traditional and Systematic Techniques* (1st ed.). SAGE Publications Inc.
- Maliszewska, M., Mattoo, A., & Van Der Mensbrugge, D. (2020). *The Potential Impact of COVID-19 on GDP and Trade: A Preliminary Assessment (English)*. Policy Research working paper; no. WPS 9211; COVID-19 (Coronavirus). World Bank Group.
- Ministerio de la Mujer y Poblaciones Vulnerables. (2019). *Decreto Supremo N° 008-2019-MIMP, Decreto Supremo que aprueba la Política Nacional de Igualdad de Género*. Plataforma digital única del Estado Peruano. <https://www.gob.pe/institucion/mimp/normas-legales/271118-008-2019-mimp>
- Organización Internacional del Trabajo (OIT). (2020). *Extractos del Informe General | Aplicación de las normas internacionales del trabajo en tiempo de crisis: importancia de las normas internacionales del trabajo y de la supervisión efectiva y reconocida en el contexto de la pandemia de COVID-19*. Organización Internacional del Trabajo.
- Organización Internacional del Trabajo (OIT). (2021). *Perspectivas Sociales y del Empleo en Mundo | Tendencias 2021 | Informe de referencia de la OIT*. Organización Internacional del Trabajo.
- Presidencia del Consejo de Ministros. (2020). *Decreto Supremo N° 044-2020-PCM, Decreto Supremo que declara Estado de Emergencia Nacional por las graves circunstancias que afectan la vida de la Nación a consecuencia del brote del COVID-19*. Plataforma digital única del Estado Peruano. <https://www.gob.pe/institucion/pcm/normas-legales/460472-044-2020-pcm>.
- Presidencia del Consejo de Ministros. (2020). *Decreto Supremo N° 184-2020-PCM, Decreto Supremo que declara Estado de Emergencia Nacional por las graves circunstancias que afectan la vida de las personas a consecuencia de la COVID-19 y establece las medidas que debe seguir la ciudadanía en la nueva convivencia social*. El Peruano. <https://busquedas.elperuano.pe/normaslegales/decreto->

[supremo-que-declara-estado-de-emergencia-nacional-po-decreto-supremo-n-184-2020-pcm-1907451-1/](#).

- Presidencia del Consejo de Ministros. (2020). *Decreto Supremo N° 080-2020-PCM, Decreto Supremo que aprueba la reanudación de actividades económicas en forma gradual y progresiva dentro del marco de la declaratoria de Emergencia Sanitaria Nacional por las graves circunstancias que afectan la vida de la Nación a consecuencia del COVID-19*. Plataforma digital única del Estado Peruano. <https://www.gob.pe/institucion/pcm/normas-legales/544911-080-2020-pcm>.
- Suárez, F., Munguia, C., Benites, B., & Paico, D. (2020). *Perú: Factores de Riesgo Asociados a Complicaciones por COVID-19 | ENDES 2018-2019*. Instituto Nacional de Estadística e Informática (INEI).

**Receipt date:** 08/03/2021

**Review date:** 10/18/2021

**Acceptance date:** 11/18/2021

