

National Occupation and Employment Survey transition during the COVID-19 pandemic

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Abstract and Paper

The effect of the COVID-19 pandemic on data collection made it necessary to implement actions to minimize damage to statistical production. Creativity was required to overcome the difficulties and resources that were not regularly used before the health crisis was called upon. The National Occupation and Employment Survey (ENOE, in Spanish), the main source of information on the Mexican labor market that provides monthly, quarterly, and annual data on the labor force, employment, labor informality, underemployment, and unemployment, was one of the statistical projects committed during the pandemic. Traditionally, its information was collected through face-to-face interviews; however, the social distancing imposed by the health authorities to mitigate the COVID-19 contagion forced the suspension of household interviews, a situation that could affect the historical continuity of the statistical program and leave an information gap at crucial moments. In response, it was decided to develop a telephone survey methodology, taking advantage of the rotating panel of the sample and extracting the telephone number of the households that had previously provided it during the first interview. Thus, the Telephone Occupation and Employment Survey (ETOE) was born. After a process of negotiation and awareness-raising with the federal authorities, INEGI managed to restart the traditional (face-to-face) survey but kept the telephone interviews due to the advantages they offered. This hybrid model, which maintains the conceptual, methodological, and statistical design of the original ENOE, is called ENOEN (New Edition). Given the relevance of its indicators, the introduction of telephone interviews was submitted to public consultation following the provisions of the National Statistics Law. The use of this new type of interviews went from being a reactive alternative to a proven methodology for the ENOE survey in the context of the new normality.

NATIONAL OCCUPATION AND EMPLOYMENT SURVEY TRANSITION DURING THE COVID-19 PANDEMIC

The story that began in the last quarter of 2019 is well known and sparked global alerts when, in December, the emergence of a new deadly and rapidly spreading virus in China became known. Despite the efforts of the World Health Organization (WHO) to curb the spread of the contagion, the SARS-CoV-2 virus had spread around the world.

In Mexico, the first case was reported in March 2020, spreading exponentially, and from then on, the health authorities had to take a series of measures to avoid contact with the population and minimize the wave of contagion. Non-essential activities¹ were suspended, among which -wrongly- the generation of statistical information through surveys and censuses involving face-to-face interaction had been contemplated.

However, this situation was not exclusive to Mexico; practically all over the world, national governments took similar measures, so that the effect of the COVID-19 pandemic on data collection forced National Statistical Offices (NSOs) to implement actions to minimize the damage to statistical production. Creativity was required to overcome the difficulties and resources were used that were not contemplated before the health crisis, especially in consolidated statistical projects.

The National Occupation and Employment Survey (ENOE) developed by the National Institute of Statistics and Geography (INEGI) has been, for several years, the main source of information on the Mexican labor market, generating indicators on the labor force, employment, labor informality, underemployment, and unemployment, with a monthly, quarterly and annual periodicity, and was one of the most committed statistical projects during the pandemic. The greatest challenge was to maintain the generation of statistical information, crucial for decision making, in the context of the pandemic, but with mobility restrictions that prevented the development of normal survey activities.

Traditionally, the collection of information was carried out through face-to-face interviews during which INEGI personnel applied a series of questionnaires interacting face-to-face with the informants; being a continuous survey that reports the employment situation, five

¹ DOF: 31/03/2020. Agreement establishing extraordinary actions to address the health emergency generated by the SARS-CoV2 virus. (Available only in Spanish)

visits were made to the sample households, in which an interview was applied each quarter, in this way, INEGI maintained contact with the household throughout 15 months.²

However, the social distancing imposed by the health authorities to prevent the spread of COVID-19 infection forced the suspension of household interviews, a situation that jeopardized the historical continuity of the statistical program and threatened to generate an information vacuum at decisive moments.

Aware of the importance of statistical information at this time in the country, it was decided to innovate by adapting the survey methodology and applying telephone interviews. To this end, the rotating panel of the sample was used and the telephone numbers of the households that had previously provided them during the first interview were extracted. Thus, the Telephone Occupation and Employment Survey (ETOE) was born.

The ETOE generated nationwide information for April, May, and June 2020. To collect the information, the same collection instruments and interview technique of the traditional survey (ENOE) were used, the only modification was the one related to the telephone collection, therefore, the vast experience of the ENOE staff was used to conduct the interview successfully.

The ETOE responded to the need to generate national information for the main strategic indicators that account for the population in the labor market. The ETOE figures have a national breakdown since the size of the sample does not allow for generating the same volume of estimates normally provided by the ENOE, which, in addition to the national domain, includes breakdowns by state and the country's main cities, as well as the possibility of generating different sociodemographic and labor-related conceptual breakdowns, together with urban and rural geographic breakdowns.

Despite the restrictions presented by the telephone sample, disaggregations were made at the state level to estimate the percentages of the Economically Active, Employed, Informally Employed and Underemployed Population through the application of statistical models of small areas. This made it possible to give continuity to labor statistics by measuring the impact of COVID-19 in this area, expanding the supply of information, supporting decision

² For more details, see the Statistical Design section in: <https://www.inegi.org.mx/programas/enoe/15ymas/>

making, and allowing measurements at the regional level, where its impact was more severe. In this way, the ETOE met the most pressing information needs of Mexican society.

During the three months that information was collected by telephone, the epidemiological risk alert mechanism was modified in the different states that make up the country and, in those where the epidemiological risk alert mechanism was at medium level, it was possible to resume the face-to-face survey activities. To avoid exhausting the available telephone sample, face-to-face interviews were resumed, alternating with telephone interviews, in those states where the epidemiological risk alert allowed it.

At the same time, the federal and health authorities were made aware of the urgent need for statistical information on what was happening in the country, its population, economy, and employment during the height of the health emergency, noting that the information available would facilitate decision-making and make it more accurate.

After a series of negotiations with the federal health authorities, INEGI was able to resume face-to-face activities, first by publishing the *General Guidelines for the mitigation and prevention of COVID-19 in the generation of statistical and geographic information*³, and then by obtaining the approval of the *Agreement for the resumption of all censuses and surveys to be carried out in the national territory*⁴, which made it possible to resume normal activities, but still with certain restrictions.⁵

As had been done for some of the states in which the sanitary risk alert allowed it, in which the in-person survey had been combined with telephone interviews, this scheme was extended to the national level once the aforementioned Agreement came into force. This was done because, after three months of collecting information by telephone, it was possible to identify advantages in this methodology, among which was the fact that it kept personnel vulnerable by collecting information remotely, thus avoiding their exposure to the virus.

³ Document available at: https://coronavirus.gob.mx/wp-content/uploads/2020/07/Lineamiento_para_mitigacion_COVID19_InfoEyG_GENERICO.pdf

⁴ Document available at: https://www.dof.gob.mx/nota_detalle.php?codigo=5596930&fecha=17/07/2020

⁵ Some of the survey staff identified as vulnerable to Covid-19: elderly people or people suffering from hypertension, diabetes, cancer, or immunosuppressed due to some other condition, so they are kept at home to avoid going to crowded places or having face-to-face interactions.

In this way, a hybrid model of information gathering emerged, which maintains the conceptual, methodological, and statistical design of the original ENOE, but combines telephone and face-to-face interviews, this model was called ENOE^N (New Edition).

However, given the relevance of the indicators published from the results of the occupation and employment surveys, the introduction of telephone interviews had to be submitted to public consultation following the provisions of the National Statistics Law. Thus, on October 6, 2020, the public consultation on the incorporation of telephone interviews, updating of catalogs, classifiers, and migration to digital tools, of the National Occupation and Employment Survey (ENOE) was approved, which was carried out during the period from October 8 to November 30, 2020.

The purpose of the consultation was to receive comments and contributions regarding the incorporation of telephone interviews as a risk mitigation mechanism in the event of situations that prevent visiting homes; the updating of the ENOE catalogs and classifiers; and the migration to digital tools to minimize the use of manual procedures.

In this sense, it is important to note that telephone interviews were, in the first instance, an emerging measure that allowed the Institute to continue generating statistical information in times of crisis, but its effectiveness was such that it went from being a reactive alternative to a proven methodology for the ENOE survey in the context of the new normality.

The combination of both survey strategies is valid insofar as they maintain the same conceptual, statistical, and methodological design, in addition to the fact that the analysis of the results of the strategic indicators considering the sample of face-to-face interviews versus the sample of face-to-face interviews plus telephone interviews, shows that there are no statistically significant changes in the strategic indicators of occupation and employment and improves the statistical precision of the results.

The ENOE^N maintains the same sample design of the ENOE, retaking the sample of its predecessor corresponding to the third quarter of 2020 for face-to-face interviews and the sample of telephone interview dwellings from the sample of the first quarter of 2020. In July, the ENOE^N estimated the survey weights in the same way as it was done in the ENOE, that

is, it was not necessary to adjust them through calibration, unlike in April, May, and June when information was collected only by telephone interview.

INEGI faced significant challenges in generating timely and reliable information during the health crisis associated with the Covid-19 pandemic. Although the institute had already anticipated the need to collect information through alternative means to face-to-face interviews, the 2020 health crisis forced the authorities to promote the generation of economic and socio-demographic statistics through alternative methods, which would not only help to make the processes more efficient but would also comply with the health guidelines imposed by the authorities during the pandemic. The results are surprising, and this note gives an account of some of the many changes that needed to be implemented to maintain the flow of relevant information in the country at a time of crisis.

The new methodologies to generate relevant, timely, and reliable information have represented an enormous challenge of creativity, which has paid off. INEGI emerged strengthened from the situation with the certainty that the generation of information does not stop in the country in times of crisis or challenges.