Abstract: Socioeconomic Conditions Module of the National Survey of Household Income and Expenditures (MCS-ENIGH): input for the multidimensional poverty measurement in Mexico.

Based on the provisions of the General Social Development Law, the Consejo Nacional de Evaluación de la Política de Desarrollo Social (CONEVAL), is in charge to regulate and coordinate the evaluation of social development policies and programs and to establish the guidelines and criteria for the definition, identification and measurement of poverty. The Law establishes that CONEVAL should use the information generated by the Instituto Nacional de Estadística y Geografía (INEGI) considering eight poverty dimensions. For this purpose, both CONEVAL and INEGI designed and carried out in 2008 the Socioeconomic Conditions Module of the National Survey of Household Income and Expenditures (MCS-ENIGH) and that has continued every two years (2008-2016). Modifications of poverty methodological criteria should be carried by CONEVAL out over the 2020, and both CONEVAL and INEGI will continue working jointly on a new set of survey questions of the MCS-ENIGH to address the essential needs for poverty measurement.

The LGDS establishes a set of criteria that CONEVAL must follow in measuring poverty; for example, that it must be carried out every two years at the state level and every five years at the municipal scale, and that CONEVAL should use the information generated by the Instituto Nacional de Estadística y Geografía (INEGI). CONEVAL must issue a set of guidelines and criteria for the definition, identification and measurement of poverty, within which, at least, the following eight indicators must be incorporated: Current per capita income, Average educational gap in the household, Access to health services, Access to social security, Quality and spaces of the dwelling, Access to basic services in the dwelling, Access to food and Degree of social cohesion.

Over a two years period, an intensive process of institutional collaboration between INEGI and CONEVAL, which involved planning, pilot testing and consolidation of the Socioeconomic Conditions Module of the National Survey of Household Income and Expenditures, 2008 (MCS-ENIGH 2008). The MCS-ENIGH 2008 provides information, for the first time in Mexico, that makes it possible to generate calculations of multidimensional poverty at the state level, and has continued every two years (2008-2016), as it is established by the LGDS.

In order to ensure that the measurements carried out with this methodology allow for certain continuity, the methodological criteria must remain unaltered for a reasonable time period. This will allow the measurements to become accepted by the general public. Therefore, modifications of these methodological criteria should be carried by CONEVAL out only after an interval of time not smaller than ten years, over the 2020, based on the Sustainable Development Goals.

CONEVAL and INEGI will continue working jointly on a new set of survey questions of the Conditions Module of the National Survey of Household Income and Expenditures (MCS-ENIGH) to address the essential needs for poverty measurement.
The Socioeconomic Conditions Module of the National Survey of Household Income and Expenditures (MCS-ENIGH): Input for multidimensional poverty measuring in Mexico

Introduction

Poverty is a ubiquitous and painful social phenomenon, whose mitigation and desirable solution requires the joint and coordinated action of government and society. In order to perform the above in the best possible way, it is essential to measure it properly. However, this is not a simple task, given the diversity of factors behind poverty and the limitations of existing data sources of information.

In Mexico, as in most countries, the monetary measurement of poverty has been predominantly used as input to income. Although, several researchers and specialists in the field have made estimates of poverty over time, in 2002, under the mandate of the Presidency of the Republic, the Comité Técnico para la Medición de la Pobreza (CTMP) was created, integrated by academics and public officials specialists in studies and in the generation of information of a social nature, which generated an official measure of poverty for the country from the monetary perspective, for which it was used the income information provided by the National Survey of Household Income and Expenditures (ENIGH), as of 1992 (CTMP, 2002).

Consistent with the observations on the limitations of the monetary method of measuring poverty and international recommendations in this area, to consider that behind the poverty situations there are several factors or dimensions besides economic (UNECE, 2017), the Ley General de Desarrollo Social (LGDS) of Mexico in 2004, established that a multidimensional poverty measurement should be carried out for the country. This law sets out the indicators, periodicity and territorial areas to be covered by poverty measurement. The LGDS also created the Consejo Nacional de Evaluación de la Política de Desarrollo Social (CONEVAL), a public institution bearing technical and administrative autonomy; its mission is to regulate and coordinate the evaluation of social development policies and programs and to establish the guidelines and criteria for the definition, identification and measurement of poverty. CONEVAL should use the information generated by the Instituto Nacional de Estadística y Geografía (INEGI) (Ley General de Desarrollo Social, 2004).

Based on this legal mandate, Socioeconomic Conditions Module (MCS) was created as a complement to the ENIGH, with the purpose of providing the necessary information inputs so that CONEVAL could carry out the measurement of multidimensional poverty at the national and state scale. The MCS has been carried out jointly with the ENIGH in the years 2008, 2010, 2012 and 2014, in addition to an extraordinary survey in 2015 without the ENIGH.

In the present paper is made a characterization of the MCS that is associated to the ENIGH, in its role as input of statistical information for the multidimensional poverty measurement in Mexico. The paper is structured into six sections. The first one briefly discusses the background of household income and expenditure surveys in Mexico, which is the source of information for poverty measuring. The second presents the legal mechanisms that support the multidimensional poverty measurement in the country that lead to the creation of the MCS as a complement to the ENIGH. The third section describes the methodology for the multidimensional poverty measurement in Mexico. The fourth section refers to the way in which the ENIGH and MCS combination was implemented starting in 2008. The fifth section shows the evolution of poverty in the country in recent years and refers to the extraordinary gathering of the MCS in 2015. And finally, the sixth section presents a recapitulation and future tasks to be carried out jointly by CONEVAL and INEGI in Mexico, in the field of poverty measurement.


Backgrounds of survey of household income and expenditures in Mexico

In Mexico, there is a history of gathering information related to income and expenditure since 1914, when the Departamento del Trabajo applied different questionnaires and methodologies to know the main expenditures of working families. The information was collected in different ways and with several questionnaires. Some of the information was collected directly from previously selected working families, who were asked about their expenses over a given time, usually one week. Another part of the information was obtained through questionnaires that were sent to the municipal presidencies to register the prices they had had in their municipalities of certain articles of consumption; this information was requested month by month and was published in the Boletín del Departamento del Trabajo through tables showing the evolution of prices at the national level.

It was until 1956 that the first survey with scientific methods of sampling, which was denominated "Income and expenditure of the population of Mexico" was raised and was in charge of the Dirección General de Estadística (DGE), that belonged to the Secretaría de Economía; in 1958 the same DGE raised a new survey of "Income and expenses of families in the Mexican Republic" and later, in 1960 another one was raised in the main urban centers of the country, under the name of "The 16 main cities of the Mexican Republic: income and family expenses". The Banco de México, in 1963, carried out a survey on the subject called the "Household Income and Expenditure Survey in Mexico" and in 1968 developed another income and expenditure survey, but with the main objective of know the consumption of certain agricultural products, which was called "The distribution of income in Mexico: household income and expenditure survey".

During the period 1969-1970, the DGE, now belonging to the Secretaría de Industria y Comercio (SIC), conducted again a new survey of "Income and expenditure in the Mexican Republic." In 1975 it was the Secretaría del Trabajo y Previsión Social (STPS), the instance that made a new version of the "Family Income and Expenditure Survey". In 1977, the DGE now, as part of the Secretaría de Programación y Presupuesto (SPP), developed the "National Survey of Household Income and Expenditures" (ENIGH), which constitutes the immediate antecedent of the one that has carried out by INEGI since the year 1984.

Since INEGI took responsibility for the survey, it worked to broaden the objectives and homogenize the methodology, taking into account the international recommendations and the information requirements of different users, taking care, as far as possible, in the historical comparability. Since then, ENIGH has gained recognition as one of the most consolidated household surveys in Mexico and an international reference for similar projects.

In 2002, as a result of the work of the Comité Técnico para la Medición de la Pobreza (CTMP), the Secretaría de Desarrollo Social (SEDESOL) initiated the official poverty measurement in the country under the monetary approach and agreed to apply based on the information generated by the ENIGH. From this date, the ENIGH provides the necessary information to measure the evolution of poverty in Mexico. This responsibility for the survey was consolidated in 2004 with the LGDS, which, as already indicated, created CONEVAL as the public agency in charge of poverty measurement in the country, based on information generated by INEGI.

Other instruments have been added to the ENIGH to supplement information, such as the Socioeconomic Conditions Module (MCS), an indispensable element for the poverty measurement since 2008 under a multidimensional approach. Later, on September 4, 2012, the agreement determining Información de Interés Nacional (IIN), both ENIGH and MCS, was published in the Diario Oficial de la Federación, making it...
mandatory to use it. Thus, over the years, ENIGH and MCS have strengthened as part of the most important statistical projects for the determination and evaluation of social policy in the country (INEGI, 2016).

**Ley General de Desarrollo Social**

On January 20, 2004, the Ley General de Desarrollo Social (LGDS) was approved, which establishes as one of its central objectives "...to guarantee the full exercise of the social rights set forth in the Political Constitution of Mexico, ensuring access to social development to the population as a whole". The law indicates as objectives of the Política Nacional de Desarrollo Social (National Policy for Social Development), the promotion of conditions that ensure the enjoyment of social rights (both individual and collective), as well as the promotion of economic development with a social perspective aimed to raise population income and to reduce economic and social inequality. One innovation of the law is the incorporation of institutional mechanisms for evaluation and monitoring of social development policies. (CONEVAL, 2014).

In order to evaluate the social development policy comprehensively, the law creates CONEVAL and in its articles 36 and 37, it entrusts to establish the guidelines and criteria for the definition, identification and poverty measurement. And for this, the LGDS instructs the CONEVAL, the following criteria:

- It must be carried out every two years at the state level and every five years at the municipal scale.
- CONEVAL should use the information generated by the Instituto Nacional de Estadística y Geografía (INEGI).
- At least, the following indicators must be incorporated:

  1. Current per capita income
  2. Average educational gap in the household
  3. Access to health services
  4. Access to social security
  5. Quality and spaces of the dwelling
  6. Access to basic services in the dwelling
  7. Access to food
  8. Degree of social cohesion
  9. Degree of accessibility to paved road

  (Ley General de Desarrollo Social, 2004)

Based on the LGDS, there was a need to carry out a household survey with state representation every two years, which would provide information on the dimensions of poverty specified in the law. Since ENIGH was biennial and had already collected income, was considered the appropriate instrument to fulfill that mandate.

**Multidimensional Poverty Measurement in Mexico**

Based on the LGDS and in proposals and consultations of experts in the field, national and international, CONEVAL defined the methodology for the multidimensional poverty measurement in Mexico. CONEVAL decided to keep aside the economic and social aspects of this phenomenon, related to which the LGDS establishes in its Article 6 as social rights, namely: "...education, health, food, housing, enjoying a healthy
environment, work and social security and those related to non-discrimination in the terms of the Political Constitution of Mexico." (Ley General de Desarrollo Social, 2004).

This led CONEVAL to raise two dimensions in the poverty measurement, one that considers economic wellbeing and another that accounts for the shortcomings in the rights mentioned above. For the insufficiency in terms of economic wellbeing, people whose income is not sufficient to obtain the goods and services required for the satisfaction of their needs are identified, thus defining a wellness threshold and a minimum wellness threshold. The first considers the economic amount required for the acquisition of goods and services to meet the food and non-food needs of the population, while the second focuses on the amount required only for the satisfaction of the food needs of the population. As for social rights, people are identified with at least a lack of the rights established in the law, so that for each person an index of social deprivation is constructed with the sum of the deprivations that it presents (CONEVAL, 2014).

Therefore, to measure poverty, CONEVAL classifies people according to the income they receive and the social deficits they present. As stated above, a person may be classified in one, and only one, of the following groups:

- Multidimensional poor. People with an income below the wellbeing threshold and with one or more social deprivations
- Vulnerable due to social deprivation. Socially deprived people with an income higher than the wellbeing threshold
- Vulnerable due to income. Population with no social deprivations and with an income below the wellbeing threshold
- Not multidimensional poor and not vulnerable. Population with an income higher than the wellbeing threshold and with no social deprivations


**Socioeconomic Conditions Module (MCS)**

During the years 2006 to 2008, an intense collaboration process took place between CONEVAL and INEGI, seeking to fulfill the mandate of the LGDS. Because the law establishes that for the poverty measurement with a biannually periodicity by state scale information generated by INEGI should be used, and since this Institute already carried out the ENIGH every two years in those finished in zero and even number, it was considered as the most viable solution to increase the size of the survey sample, but given the large sample size needed to generate results by federative entity (64,000 households) this option was ruled out for being very expensive. Thus, the two institutions agreed to the planning, testing and consolidation of the Socioeconomic Conditions Module (MCS) as a complement to ENIGH. The first survey of the MCS in the company of the ENIGH was in 2008 and followed by similar surveys in 2010, 2012 and 2014. In 2015, at the request of CONEVAL, the MCS was carried out without the ENIGH.

The information of some dimensions of poverty was already captured in the ENIGH, such as income, education level of people and services and spaces of the dwelling, which in general required minor adjustments; for others aspects it was necessary to make larger adjustments, such as access to social security; but others were totally new, such as access to health services, access to food and degree of social cohesion. Also, context variables related to the incidence of poverty were incorporated, such as the presence of disability and the speaking of
indigenous language among the members of the household. The new topics were distributed in the different ENIGH questionnaires.

The MCS captures the sociodemographic, housing, occupancy and income information captured by the ENIGH, in addition to specific topics for multidimensional poverty measurement and context variables. Expressed in simple terms, it can be said that the MCS is an ENIGH without the collection of household consumption expenditures.

However, the statistical design established 2 000 dwellings per state to have representative results for each of them. The ENIGH sample is usually about 20 000 dwellings, so it was necessary to apply the MCS in a complementary sample of 44 000 dwellings financed with the resources provided by CONEVAL. The dwellings are independent between the two projects and, after completing the processing of the data collected, a single database is integrated with the information necessary for CONEVAL to carry out the poverty measurement.

The methodology of gathering information in the ENIGH and MCS is broadly the following:

- Target population: all national and foreign households that live within the country’s boundaries
- Unit observation: particular dwellings
- Units of analysis: the household, the dwelling and the members of the household
- Gathering period: the data is collected between August 21st and November 28th, divided in 9 parts, each one consisting of 10 days, they are called “decenas” (sets of ten).
- Interviewers workload: for ENIGH five dwellings in each “decena” and fifteen dwellings in each “decena” for MCS (until three visits to interview directly the proper household member)
- Collection instruments: for ENIGH, the household and dwelling questionnaire; the questionnaire for individuals 12 years and older; the questionnaire for family businesses; the questionnaire on household expenditures and the daily expenditures booklet and four to the MCS (the household and dwelling questionnaire, the questionnaire for individuals 12 years and older; the questionnaire for individuals younger than 12 years; the questionnaire for family businesses). The household and dwelling questionnaire and the questionnaire for family businesses are almost identical between ENIGH and MCS, but the questionnaire for individuals 12 years and older; the questionnaire for individuals younger than 12 years are different because the way in which non-monetary income is captured (in ENIGH, non-monetary income is captured in the sections where expenditure information is collected, while in the MCS it’s captured in the individual questionnaires and questionnaire for family businesses).

- Questionnaire informant:
  - Household and dwelling (ENIGH y MCS): head of household or any household member over 18 years of age that knows the information.
  - For individuals 12 years and older and for family businesses: from household members that are 12 years of age or older, each member is interviewed individually (ENIGH y MCS), in the MCS an indirect informant can be interviewed as long as he knows the information.
- For individuals younger than 12 years (ENIGH y MCS): this questionnaire gathers information indirectly about household members younger than 12 years of age, the information is provided by a person 18 years of older that is responsible for the minor, so the presence of the child is not mandatory.
- Of household expenditures and the daily expenditures booklet (ENIGH): from the person(s) responsible for the purchases in the household, and the household members that make personals expenditures.

In order to capture the necessary information for multidimensional poverty measurement, it was necessary to make additions to the ENIGH questionnaires, as follows:

Household and dwelling questionnaire: inclusion of the variables like estimate of housing rent, indigenous language speakers, time needed to get to a hospital, access to food for household members and persons with disabilities in the household.

Questionnaire for people 12 years and older: the incorporation of access to social security, access to health services and degree of social cohesion.

Questionnaire for individuals younger than 12 years: added access to health services.

Questionnaire for family businesses: included self-consumption in industrial businesses and self-supply in commercial and service-type businesses.

After 2008 and until 2014, some adjustments have been made in the ENIGH and MCS questionnaires. For the 2010 edition, CONEVAL made adjustments in the questions that are used to capture the dimension of access to food and in 2014 for the dimension of access to health services. In these years, income collection remained unchanged.

The common MCS and ENIGH questionnaires are set out as follows:

Household and dwelling questionnaire: Includes six sections to gather: characteristics of the dwelling; number of residents and identification of all households in the dwelling; socio demographic characteristics of the household members; access to food in the household; household equipment and time needed to get to a hospital.

Questionnaire for family businesses: Gathers general characteristics of the family business (production, sales and expenses) from industrial, commercial and services businesses; agricultural, forestry and wood cutting businesses; breeding, gathering, fishing and hunting businesses.

Questionnaire for individuals younger than 12 years: The MCS gathers monetary and non-monetary income (in-kind), and access to health services. The ENIGH gathers monetary income and access to health services, since the non-monetary income are captured in the questionnaire on household expenditures.

Questionnaire for people 12 years and older: Gathers employment condition; characteristics and income from the main job for subordinated employees and the self-employed; characteristics and income from the secondary job; income from other jobs in the past month, or performed in the past month: income from transfers and other income; social networks, time use and access to health services. (The MCS gathers monetary and non-monetary income, otherwise the ENIGH gathers the non-monetary income in the questionnaire on household...
expenditures). The ENIGH gathers income from financial assets and from capital, although those are not considered part of current income.

In addition, the ENIGH apply one Questionnaire on household expenditures, which gather monetary expenditure and non-monetary income (goods and services in-kind) received in the household of more than 500 items of expenditure, and the Daily expenditures booklet, which requires the collaboration of the person responsible for the expenses and purchases in the household. This person has to write the daily household expenditures on food to be consumed in and outside of the house; regularly used public transportation; estimated value of the goods and services related to food and transportation that received in the seven day reference period.

**Evolution of poverty in Mexico**

The MCS-ENIGH 2008 allowed the country to count for the first time with information to generate estimates of multidimensional poverty by state scale, according to the LGDS. Prior to that date, the poverty estimate was monetary and was only realized at the national level with urban and rural cut. In this way, Mexico was one of the first Latin American countries to have a multidimensional poverty measure (Aparicio, 2014). With subsequent editions of the MCS-ENIGH (2010, 2012 and 2014) it is possible to follow the evolution of multidimensional poverty in the country.

The results published by the CONEVAL on its institutional page indicate that in 2014 there were 119.9 million people residing in particular dwellings (excluding guests and domestic workers and their families), which according to the methodology of multidimensional poverty measurement are classified as follows:

- 55.3 million people (46.2%) are in multidimensional poverty, of whom 43.9 million (36.6%) are in moderate poverty and 11.4 million (9.5%) are in extreme poverty.
- 31.5 million people (26.3%) are vulnerable due to social deprivation.
- 8.5 million people (7.1%) are vulnerable due to income. And,
- 24.6 million people (20.5%) are not poor and not vulnerable.

The poverty data for 2014 are very similar to those of 2010, when 46.1% of the population living in particular dwellings were in multidimensional poverty.


Mexico has historically been a country with great economic and social inequalities and therefore with high levels of poverty. The years for which systematic poverty measurements are available, both from their monetary and multidimensional approaches, indicate that there is no sustained progress in mitigating this phenomenon, given that in recent decades periods of economic growth have alternated with poverty reduction, with periods of poor economic performance in which the poverty increases again (Aparicio, 2014).
Recapitulation and Future Challenges

Poverty is a universal, persistent and profound social phenomenon that requires adequate measurement, so that governments and societies have useful tools to establish and evaluate public policies aimed at reducing and eradicating it. At the international level, there is a growing consensus that poverty does not only respond to economic factors, but also a number of aspects, such as poor health, social exclusion, insecurity, among others, that go beyond material conditions of people. In line with the above, international recommendations in this area suggest that countries complement traditional monetary poverty measures with multidimensional measures that include non-material aspects of poverty (UNECE, 2017).

Mexico, has been one of the first countries to abide by the international recommendations by adopting this measurement approach in compliance with the mandate of the Ley General de Desarrollo Social (LGDS) of 2004, which establishes that a multidimensional poverty measurement, under the responsibility of the Consejo Nacional de Evaluación de la Política de Desarrollo Social (CONEVAL) and using information generated by the Instituto Nacional de Estadística y Geografía (INEGI). For this, INEGI and CONEVAL agreed to conduct the Socioeconomic Conditions Module (MCS) on a biennial basis as a complement to the National Survey of Household Income and Expenditures (ENIGH). The MCS-ENIGH has been applied in the years 2008, 2010, 2012 and 2014. The new results of 2016 of these works will be announced on August 28, 2017.

The methodology of multidimensional poverty measurement in Mexico defined and conducted by CONEVAL establishes that it must be reviewed ten years after its implementation, which will be completed in 2018; this will, undoubtedly, demand adjustments to the mexican sources of information to poverty measure, ENIGH and MCS. At the same time, INEGI has detected important areas of opportunity in these surveys with a view to achieving a measurement of household income and expenditures that is closer to reality, such as not covering vulnerable groups that do not reside in particular dwellings, inadequate gathering of income and expenditures (problems of undercoverage and truncation) and, of course, the updating of the necessary variables for the multidimensional poverty measurement. These aspects will imply important modifications in the ENIGH and the MCS, which must be carried out with care and in a planned way, from the year 2018, both by CONEVAL and INEGI, given the responsibilities that the two autonomous organisms establishes them LGDS.

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