NATIONAL STATISTICAL DIRECTORY OF ECONOMIC UNITS (DENUE) MEXICO

Introduction

In July 2010, National Institute of Statistics and Geography (INEGI) made the National Statistical Directory of Economic Units (DENUE) available to the Mexican public; it materializes the effort made for over three decades to design some projects aimed to create a national economic register. From these, only two are currently in force: The Mexican Business System (SIEM), overseen by the Secretary of Economy and the DENUE.

DENUE's first version was generated from the information that was collected by the 2009 Economic Census that provided the identification and location data of a little more than 4.3 million economic units of all the sectors of economic activity –except the agricultural and forestry activities— that the census found active in national territory. Fulfilling the commitment of updating DENUE's information, the INEGI published the 2nd updated version of the National Statistical Directory of Economic Units in early 2011, in which 52,619 economic units were incorporated and 8,221 that were no longer operating were excluded.

The data provided by DENUE allows the identification of the economic units by the type of juridical organization (individual or legal entity), by its economic activity and/or by its size (stratum of employees); as well as locating them in the Mexican territory by regions, localities, blocks and streets. The Directory also provides the geographical coordinates for the location of establishments, so they can be visualized in cartography.

DENUE's information can be consulted by any user from INEGI's web site, through a consultation system that provides the establishment's data on tabulators as well as their location in cartography.

The efforts that preceded the generation of the DENUE are briefly described in this document; the legal framework that regulates; the consultation system for users; as well as its sources and strategies for its updating.

Background

Even when the records and the economic units register go back to the colony and to the independent Mexico, it is until de 80's when the first register is implemented, it expressed its objective, and its legal mandate was to count on an identification system to generate statistics: the Statistical Demonstration. Framed in the Statistical and Geographical Information Law (LIEG), today abrogated, the registration was free of charge and also mandatory for all "economic units, industrial companies and establishments, commercial, agricultural, forestry and fishing; those in charge of production or sales of goods and services; civil societies and associations, as well as the other public institutions, social or private institutions with non-lucrative objectives and also the cultural and educational ones..." except for the political parties or associations referred to in the Federal Law of Political Organizations and Election Processes.

Even though the LIEG was abrogated in 2008, with the implementation of the current National System of Statistical and Geographic Information Law (LSNIEG), the fact is that the lack of sanctions led to the non-fulfillment of the regulatory provisions as to the registration and updating of information, therefore its ineffectiveness.

In 1984, INEGI, with the advice of the Institute of Statistics and Economic Studies of France, started designing and planning the National Identification System of Companies and Establishments (SINEE), its objective was, on one hand to generate statistics at lower cost and mayor opportunity, and on the other, to contribute in the coordination among the dependencies responsible of the administrative registers of the economic units, as well as the administrative simplification, through the allocation of a national identification code that is to be incorporated by public organisms to all the economic units that will be part of their registers. For several reasons, this attempt of counting on a statistical register of economic units did not prosper.

More than a decade past in 1996, before the Secretary of Commerce and Industrial Development in that time, with the advice of the General Direction of Statistics INEGI, designed and operated the Mexican Business Information System (SIEM). Since its origin, the SIEM has had the objective of counting on the information from corporations that make the promotion and implementation of the different programs of productive development applied in the country, possible. Currently, the SIEM is under the responsibility of the Secretary of Economy that operates it through the business chambers and confederations. Although the Law of Business Chambers and its Confederations make it mandatory that the corporations enlist in this registration, again the lack of effective sanctions, has caused that only a minimum part of these register in the SIEM.²

In the year 2002, INEGI initiated a project for the creation of a list for economic units and, in 2006, at the request of users, offered directories of economic units from the data captured by the 2004 Economic Census.

¹ Article 8th of the Statistical and Geographic Information Law.

² Currently the SIEM has around 700 thousand registers of legal entities.

In that context, the legislation that regulates the generation of statistical and geographic information is modified and through a decree; the constitutional reform of Articles 26 and 73, fraction XXIX-D, is published in the Official Daily of the Federation (DOF) on April 7, 2006. Section B was added to Article 26; it orders the State to have a National System of Statistical and Geographic Information (SNIEG). It is pointed out in the same article that the responsibility for regulating and coordinating this System will be under charge of an organism with technical and managerial autonomy, legal personality and own patrimony. Moreover, the Congress is empowered to legislate in Article 73 on statistical and geographic information that is of national interest.

As of this constitutional amendment, the LSNIEG was elaborated, and published in the DOF on April 16, 2008, in which the obligation of the National Sub-system of Economic Information of having a geo-statistical framework and a national directory of economic units as a minimum infrastructure of information is clearly established, both under the responsibility of the current INEGI and with an essentially statistical purpose. The LSNIEG in its First Transitory article determines that the National Directory of Economic Units must be generated at the latest on August 1, 2010.

Fulfilling that mandate and making the dream of a decade true, INEGI made the DENUE available for the Mexican society on July 29, 2010, conformed in its first version of July 2010 with information of already existing economic units during the collection of the 2009 Economic Census.

Legal framework

As it was already mentioned in the previous section, since the beginning of the Independent Mexico, institutions have been established and diverse regulations have been dictated to make it possible for the State of Mexico to acquire information about the features of its economy and territory. Thereby, in the first half of the XIX century the National Institute of Geography and Statistics was created, with the function of generating information that permits systematizing the statistical activity, and on the Basis for the Administration of the Republic to the promulgation of the Constitution,³ the Ministry of Development, Colonization, Industry and Commerce is given the responsibility of elaborating statistics that provide insight into changes in the industry, commerce, mining and agriculture fields, as well as the measuring definition for the development of all the industrial and mercantile activities.

From there, seeking to strengthen decision-making that supports the national socioeconomic development, the Mexican State has dictated diverse regulations to generate statistical and geographic information. The decades of the 70s and 80s in the XX century are particularly important because of the search for mechanisms that could systemize and strengthen the generation of statistical and geographic information, as pillars for the strategic planning of the State and of the integral development of the country. Among these mechanisms, the most

_

³ Consulted in March 2010 in the Institute of Juridical Investigations of the UNAM: http://www.jurídicas.unam.mx/infjur/leg/conshist/pdf/187.pdf

significant were the promulgation of the Statistical and Geographic Information Law, in which the integration of the National and State Services of Statistical and Geographic Information were established, as well as the National Statistics and Geographic Information Systems and the creation of the National Institute of Statistics, Geography and Informatics (INEGI), with the function of coordinating these systems and regulating the generation of all the statistical and geographic information produced by the State as well as the use of informatic tools.

The reforms on the LIEG and the creation of INEGI were not able to articulate the statistical and geographic information generated by the State, nor consolidate the National Systems of Statistics and Geography. The approval and standardization of the data for the generation of government statistics was still pending. In this context, the creation of the National System of Statistical and Geographic Information rises to a constitutional rank in 2006, under the charge of an autonomous organism, and on April 16, 2008, fulfilling this disposition, the LIEG was repealed and the National System of Statistical and Geographic Information Law grants to INEGI its autonomy.

The law establishes that the National System of Statistical and Geographic Information has the objective of providing society and the State of quality, relevant, truthful and timely information, as well as to produce information, timely dissemination through user-friendly mechanisms, to promote its knowledge and use, and preserve it.

The SNIEG will be formed by:

- . The State Units,⁴ generators of the statistical or/and geographic information and of the administrative registers that allow the acquirement of information of national interest, are represented in the National Advisory Board, in the Executive Committees of each Subsystem and in the Specialized Technical Committees (CTE).
- . The National Sub-systems of Information are: Demographic and Social Information; Economic Information and Geographic and Environmental Information; these must have a minimum infrastructure of information that, in the case of the national sub-system of economic information, is constituted by a geo-statistical framework and a national directory of economic units. This provision is not limiting, since the law, with the favorable opinion of the National Advisory Board grants the Governing Board the power to create other sub-systems that are necessary for the functionality of the SNIEG, such as the Sub-system Government Information, Public Safety and Enforcement of Justice.
- . The INEGI is responsible of regulating and coordinating the System.

On June 2009 following the legal mandate, that the National Sub-system of Economic Information must have an economic units directory, INEGI's Governing Board authorized the creation of the

⁴

Administrative areas with the power to develop Statistical and Geographic Activities or that have administrative registers that allow to obtain Information of National Interest: the dependencies and entities of the Federal Public Administration, including those from the Presidency of the Republic and from the General Attorney of the Republic; the Legislative and Judicial Federation; the federative entities and municipalities; the autonomous constitutional organisms, and the federal administrative courts; as well as the INEGI when it generates information. The LSNIEG, article 2, fraction XV.

CTEDINUE as permanent and formed by representatives of the State Units in charge of the administrative records of economic units, among these, the Secretary of Economy, the Tax Administration Service and the Federal Electricity Commission. Conformation that is also not limiting, as established by the Integration Rules and the Operation of the Specialized Technical Committees of the National Sub-system of Information that foresee the incorporation of other State Units that are considered important for the fulfillment of the objectives and tasks assigned to the Committees.

According to the CTEDINUE's creation agreement, the information that the DENUE is going to produce or integrate and contribute to the SNIEG will be: provide updated information on the identification data and location of the economic units; it will be input for the census planning, support for the sample design and for the design of public policies in the economic field.

From its installation, the Committee involved in the elaboration of a diagnosis for the administrative registers of the State Economic Units represented in the CTEDINUE, as well as the Technical Regulation for the Updating and incorporation of information to the National Statistical Directory of Economic Units —published in the DOF on July 27, 2010 —, in which the approval of the data for the administrative registers of economic units with the ones in the directory were provided.

DENUE July 2010

Fulfilling the legal mandate that the Sub-system of Economic Information had to have a national directory of economic units at the latest on August 1, 2010, the National Statistical Directory of Economic Units (DENUE July 2010) was made available to society on July 29, 2010.

DENUE's first version was generated from the registers of economic units collected by the Economic Census conducted by INEGI in 2009. To create the directory as of this census, besides allowing the fulfillment of the legal mandate, it guaranteed that the information had national coverage and it was the most updated on active economic units in the country of all the sectors of national economy with the exception of the agricultural and forestry activities, whose economic units will be incorporated during DENUE's updating process in 2011.

Thereby, July's 2010 DENUE provides information on 4'331,203 economic units that the Census found active in national territory, performing productive activities out of 962 types of activities contemplated in the 2007 SCIAN.

The data on the establishments that the Directory makes public is defined and established in the Technical Rule for the Updating and Incorporation of Information to the National Statistical Directory of Economic Units that, in its article 6th, specifies the following:

I. Identification data

- Name of the economic unit: it is the trade name with which the economic unit is identified or announced. When the unit does not have this name, a generic name of the economic activity will be assigned followed by a specification that says no name.
- Denomination or business name and type of society: it is a way in which a legal entity or name of a company is registered and legally constituted. In some mercantile societies, the brand name and trade name could be the same.
- Stratum of employees (defined by INEGI): the economic units are classified by ranks of employed persons that allow us to know its size by the number of persons they hire, meaning the total of employees. For the directory, the economic units are grouped in ranks or stratus of employed persons, based on the total of employees reported by the economic units, as indicated in the table below:

Employed persons
0 to 5
6 to 10
11 to 30
31 to 50
51 to 100
101 to 250
251 and more

- Industry code (defined by INEGI): the classification of developed activities and updating by the economic units must be done using the SCIAN and its updates, based on the provisions in the Agreement for the use of the SCIAN in the compilation, analysis and presentation of economic statistics, published in the DOF of July 10, 2009.
- Type of economic unit: 5 categories that identify the establishments by its legal or juridical organization, administrative and countable; meaning that to know when a establishment is unique, it is matrix or branch, and if it has permanent or semi-permanent commodities.

II. Location data

- Geographic or postal address: composed by the name and type of via, the name and type of human settlement and zip code, locality, municipality and entity. Data that allows the location of economic units from street level and to geo-reference them in the national geo-statistical framework, from the entity level to the block level.
- Telephone number.
- E-mail address and web site.

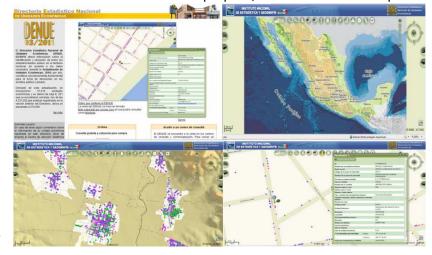
Thereby, this rule defines, in articles 4 and 5, that the legal entities with business activities will be compelled to register in the DENUE and keep their inscription updated and this provision will be considered fulfilled when they submit or update their information in any of the projects carried out by the INEGI to obtain information about the economic units and/or when they enlist in any administrative register under the charge of State Units, whose information must be apt to be incorporated into the Directory.

Finally, in the second and third transitory articles it is established that the DENUE will be available to the public in INEGI's web site, as well as the maximum period of three years so that the State Units approve the information of its administrative registers of economic units with the provisions of the standards; this means that at the latest in 2013, the State Units must have approved the information of its registers in the conceptual part as well as informatics according to the standard.

The National Statistical Directory of Economic Units and its consultation system

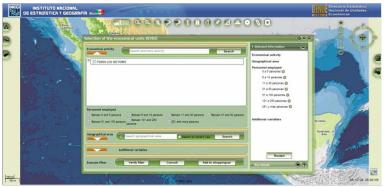
Addressing these regulations, the access to DENUE through the web is free and the users can consult all the information in INEGI's web site. For this purpose, the institute developed a

reference system -that operates through the Digital Map of Mexico's platform, created INEGI's General Direction of Geography and Environment-; it permits cartographic the visualization of the directory of economic units and even to know the geographic coordinates of



their approximate location up to the front of the block. The location is approximate, because the setting point of the economic units cannot be obtained through geo-positioning satellites (GPS) instead it is manually obtained in the field. When digitalizing these points and assigning them the geographic coordinates system, there are small variations for which in some cases the economic unit is visualized in cartography a few meters away from its exact position.

The system allows the users to select the segment of economic units for information they are interested in, through three main consultation filters: economic activity, stratum of personnel and geographic location. It also offers the possibility to carry out more



detailed search through a fourth filter, that adds specific features of the economic units, such as the name, business name, street, neighborhood and/ or zip code.

Once the features of the economic units that the user wishes to consult are defined, with the help of the filter, the system displays the results in two ways:

1. A tabulate with the number of economic units that meet the search criteria by economic activity and geographic location displays by selecting "Check Filter", which is in the selection window and allows them to know the total of economic units whose features match the criteria defined by the user.



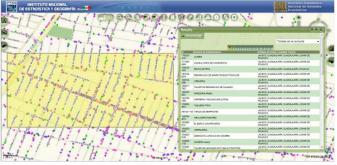
2. A listing of all the economic units that meet the defined features, displays with the option "Consult", which is also found in the selection window. From this listing, the user can visualize the location of the establishments in the map, result of his/her selection, as well as consult its data.



The

system has a search tool for establishments or specific geographic information, with which it is possible to consult data from a particular establishment or street, neighborhood, town, entity or hydrographic feature.

It also has tools for the user, from a point –it may be an establishment, a block, a street or the confluence of streets, or other–, delimits the extent of a zone to know the number of establishments located therein. The user is able to shape an area to know the number of establishments that comply with the criteria established in



the initial filter. You can also delete the filter and see all the economic units in such area.

These areas can be delimited manually or using the system tools (by ratio, street or block) and have the dimension that the user decides, which together with the tool to measure distances and areas, makes them very useful when it is required to define or assess routes and distribution time, for example.





DENUE's utility

The DENUE provides dependable information, basis of the public and private decision-making process to direct the investment and optimize resources.

As mentioned before, it is possible to identify productive chains with the data and tools the consultancy system provides; customers and suppliers, competitors, potential distribution areas and zones. It is also a support for the assessment of policies and expansion projects, design and evaluation programs for the economic development, market studies and research on the economic field.

In the academic field, it is an important tool to improve teaching and in research, for the construction of models of dynamic behavior.

With its geo-referred database of economic establishments, the DENUE strengthens the National System of Statistical and Geographic Information because, by providing the distribution of establishments in urban areas, it enriches decision-making, not only in the economic development field, but around the territorial order of the cities, supporting the planning to guide the service capacity of work, transportation, etcetera, as well as the rational and harmonious

definition of urban policies, such as those relating to the use of land in all the government regulations and the elaboration of development plans for education, health, culture, recreation and tourist areas. Therefore, it is a tool whose information can support decision-making and will be useful to support loss estimation and construction costs, as well as the assessment and definition of public prevention policies and urban development.

Additionally to these uses, the free access through the web site has contributed for the DENUE to be perceived as a broadcast medium and means of e-commerce promotion and, for the non-specialized user to apply it as a search tool of economic units, identifying and locating establishments that can satisfy a specific need.

Marketing DENUE

The user who is interested in acquiring a selection or all the directory registers, to handle database processors or geographic information systems, can make a requirement quotation through the system and, later complete the purchase in the Consultation and Marketing Center from INEGI of his/her choice.

Consistent with the policies of promotion for the use of information implemented by INEGI, the cost of the DENUE is very convenient and it depends on the use that will be given to the information. When it is purchased for personal use, the total cost of the directory registers is of 65 thousand 053 USD; for product trade and services to a third party, the cost rises to 327 thousand 267 USD plus tax; which means that each register does not exceed 0.085 USD.⁵

As a result of the vigorous dissemination campaign that INEGI has done to promote the use of the directory among the users of social, academic and economic fields, in the Public as well as in the Private Sectors, in a period of 7 months, DENUE's website received more than 200 thousand inquiries and sold 22 million 630 thousand 141 economic units registers, representing 346 thousand 405 USD.

Mechanisms for the updating of DENUE 03/2011

To maintain DENUE with updated information represents a big challenge that must consider the legal provisions and regulations as well as the results of demographic studies made by the INEGI.

The National System of Statistical and Geographic Information Law states that, the National Directory of Economic Units must be established, operated and regulated by INEGI, and of mandatory use for the organization of administrative registers from which information of national interest can be obtained. It also establishes that the State Units, responsible of such registers, are requested to provide the Institute with the information necessary for its creation and updating. It requires individuals with business activity and legal entities to register in the directory as well as to keep updated.

On the other hand, the results of the demographic study of economic units done in 1996 by INEGI to know the mobility in the establishments captured by the 1994 Economic Census and the ones obtained from the study conducted at the end of 2009, only six months after the Economic Census survey of that year, indicate a biannual obsolescence of the census of 10.7% in 1996 and 13.5% in 2009, non-accumulative yearly data. It was also found that 95.4% and 93.8% of the establishments in the samples of 1996 and 2009, respectively, were still active.

_

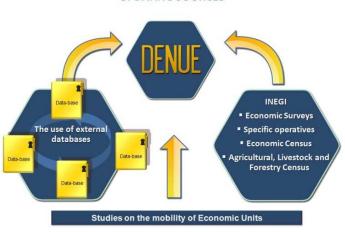
 $^{^{5}}$ Before taxes, each of DENUE's registers cost 0.013 and 0.074 USD, respectively.

	1996 STUDY (1994 ECONOMIC CENSUS)	2009 STUDY (2009 ECONOMIC CENSUS)
BIANNUAL NEW REGISTERED	6.1%	7.3%
BIANNUAL INCREASE	1.5%	1.1%
BIANNUAL DE-REGISTERED	4.6%	6.2%
BIANNUAL OBSOLESCENCE	10.7%	13.7%

Based on all this, it was suggested that the updating must be done considering three sources and four strategies:

Updating sources:

- 1. Economic and Agricultural Census.
- 2. The surveys, studies and diverse projects that are being done by the General Direction of Economic Statistics of INEGI, as well as the ones done by the General Direction of Geography and Environment, as to updating the elements of its scope of competence refers.
- 3. Administrative registers of economic units of the State Units

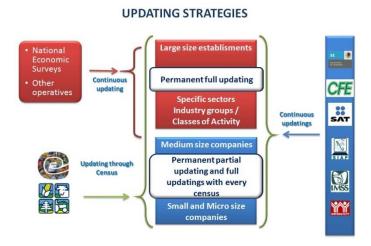


UPDATING SOURCES

Updating strategies:

- Permanent updating of 100% of large establishments (those with 100 or more employed people and / or 4 million 310 thousand 344 USD of annual income and those economic units that have one or more establishments in two or more federative entities) and of specific sectors, sub-sectors, branches or types of economic activity, by conducting surveys and specific studies.
- Permanent partial updating of the micro establishment segment, small and medium through mobility studies

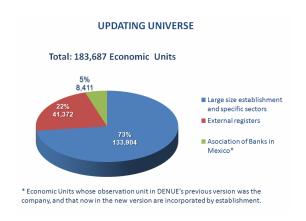
- Continuous update of both segments through the comparison of administrative registers
 of the State Units databases with the DENUE's database, in order to incorporate the data
 of economic units to it, that after the field verification, are still not registered in the
 DENUE.
- DENUE's 100% update in each Economic, Agricultural and Forestry Census.



To update information for the identification and location of economic units implies having to do what is required by the National Geo-statistical Frame to be able to locate establishments in the cartography through the consultation system. For each DENUE update, a cartographic adjustment is made, identifying new growth and urban development with the support of recent satellite images. On the other hand, the user's consultation system is subject of changes in the information and in its platform tools—Digital Map of Mexico—, in order to offer in each new version a friendlier system for all the users.

DENUE 03/2011

For the updating of the DENUE's database and the generation of the its 03/2011 version, 100% of the large establishments were updated, which are 3.5% of the total of economic units and represents 80.6% of the national total gross production of the commerce sectors, manufacturing and private non-financial services. The Economic Units from the Tax Administrative Service's (SAT) databases were also verified in the field. The update was done in the last trimester of 2010 through a field operation in which the establishments that were visited to verify their condition (active, inactive, new registrations) and update or collect the identification data and geographic location.



As a result of this operation, in the 03/2011 version, 52,619 units of all the sectors of economic activity that began operations between June 2009 and June 2010 were incorporated; 8,221 that stopped operating between June 2009 and December 2010 were excluded; this means that out of the total updated universe, 94% of the economic units were active.

UPDATING RESULTS



On the cartographic aspect, the geo-statistical frame was updated to incorporate new growth as well as urban developments, so in this DENUE's version there is a decrease of 3 urban localities, at the request of municipal authorities, as a result of the conurbation, as well as an increment of 6.311 of urban blocks with at least one economic unit. The updating of the geo-statistical frame implied greater precision in the location of economic units in cartography.

The consultation system for users incorporated some of the mobility studies and operational updates into the legal, conceptual and methodological information sections of the DENUE so that the users are aware of the validity of the information provided in this new directory version.

On the other hand, the data on each of the technical data sheets of each economic unit the incorporation date to DENUE was included so that users know if the establishment is registered in the directory from July 2010 or as of March 2011.

For this 03/2011 version, "quick helps" for each system tool as well as videos in some windows were included (such as the main filter and the creation of influence areas), so the user can easily get help through texts with images or through a video that allows to visualize the handling of the tool. A "price shopping cart" for the quotation of the selected information was included in order to allow the user to add packages of the registers of the economic units that they select along their consultation session and fulfill the quotation at the end of the session.

Short and medium term perspectives

The purpose for which DENUE was generated implies considering a number of scenarios and activities aimed to achieve that the directory provides updated information on national economic activity; to do so, the following actions have been scheduled:

- Incorporate the information on agricultural production units that were collected by the 2007 Agricultural and Forestry Census, so that DENUE's version of the second half of 2011 provides information of all the economic activity sectors cataloged in the SCIAN and the economic units settled in the rural zones of the country.
- Review in the CTEDINUE all the information referring to the definition and agreement
 criteria of the approval of the databases of the State Units with DENUE's database,
 hoping that by December this year, we can count on a policy document that would
 facilitate the comparison and exploitation of the registers for the directory's continuous
 updating.
- Continue the analysis and definition of agreements within the CTEDINUE for the
 establishment of a unique statistical identification code, the Business Statistical Code
 (CLEE), with the goal for it to be assigned to each economic unit registered in the DENUE
 in 2012 and that in the future becomes the integration key of the different administrative
 registers of economic units.
- Update 100% of the registers of agricultural production units with the information of the 2012 Agricultural and Forestry Census.
- Update 100% of the economic units with the information from the 2014 Economic Census.

In all these actions, the operation of the CTEDINUE, with the representation of the State Units, generators of the administrative registers of the most important economic units in geographic and sectored coverage, represents a fundamental element to reach agreements that result in the achievement of objectives and set goals, so in the near future, Mexico consolidates the DENUE as an information infrastructure of economic statistic of national character and as an integrating element of information for the administrative registers of economic units in the country.