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**Self-assessment questionnaire on the implementation of the OECD  
Council Recommendation on Good Statistical Practice**

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**National Institute of Statistics and Geography**

**National System of Statistical and Geographical Information**

**Mexico**

**September 2017**



## Introduction

The Organization for Economic Co-operation and Development (OECD) Council adopted the Recommendation on Good Statistical Practice on November 23rd, 2015 and instructed the Committee on Statistics and Statistical Policy to report on the progress in its implementation. This report should be based on individual assessments by member countries and those seeking to join the Organization.

As a member of the OECD Mexico should **evaluate the compliance of the National System of Statistical and Geographical Information with the Recommendation on Good Statistical Practice**. This document presents the results of the application of the self-assessment questionnaire to three institutions:

- The National Institute of Statistics and Geography (INEGI), as coordinator of the National System of Statistical and Geographical Information (SNIEG).
- The Banco de México (BANXICO), as statistical authority in the production of economic and financial information (Annex II).
- The Ministry of Finance (SHCP), as statistical authority in the production of statistics on public finances and public debt (Annex III).

## General Background

Annex I presents a detailed description of the main elements and the current situation of the SNIEG. The answers to the specific questions are shown below.

### **1. Is the National Statistical System (NSS) geographically, administratively or institutionally centralized or decentralized?**

The National System of Statistical and Geographical Information (SNIEG) is centrally coordinated and is integrated by *Unidades del Estado* (UE). These are defined as specific units within government agencies in charge of carrying out statistical or geographical activities, including the collection of administrative data used for the regular production of official statistics considered as *Información de Interés Nacional (IIN)*.<sup>1</sup> The National Institute of Statistics and Geography (INEGI) is an independent public institution responsible for the coordination and regulation of the SNIEG.

The SNIEG incorporates data produced by different UE across all government branches (executive, legislative and judicial) and government levels (federal, state and municipal) through an institutional arrangement promoting objectivity, independence, accessibility and transparency, as established by the SNIEG Law.

### **2. How many statistical operations are performed for the production of official statistics?**

The INEGI, as producer of official statistics, is responsible for generating key statistics through national censuses, surveys and administrative records on topics considered as IIN; integrating the System of National Accounts, and calculating the consumer and producer price indexes. The INEGI may also produce other IIN determined by its Governing Board.

The production of statistical information is focused on the following areas: social and demographics; economics; government and public safety and the environment.

Statistical and geographical activities consider the design, collection, production, updating, organization, processing, integration, compilation, publication, dissemination and conservation of the IIN. The list of the IIN approved by the Governing Board is in Annex I.

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<sup>1</sup> The *Información de Interés Nacional (IIN)* refers to statistical and geographical information assessed by INEGI Governing Board as top priority based on its relevance and other quality criteria (see the response to Recommendation 1).

### 3. How many entities are members of the NSS?

The SNIEG is composed by UE organized through Information Subsystems (SNI) and coordinated by the INEGI. They participate in the SNIEG through a National Advisory Council (CCN), 4 Executive Committees and 39 Technical Committees. Annex I includes a detailed description of the conformation of the SNI, their members and the information they produce.

### 4. What are the main responsibilities of the various entities that make up the NSS?

The National Advisory Council (CCN) is a body whose aim is to advise INEGI on statistical and geographical activities for the production, integration and dissemination of the IIN. Its main tasks include reviewing the SNIEG work programs; proposing to the Governing Board indicators and information to be considered as IIN; and suggesting and analyzing the need to create additional Information Subsystems required for the proper functioning of the System.

Information Subsystems (SNI) are aimed at producing, integrating and disseminating IIN in different subject matters. There are currently four Information Subsystems: Demographic and Social, Economic, Geography and Environment<sup>2</sup> and Government, Public Safety and Justice.

Each SNI has an Executive Committee in charge of supervising the implementation of the Annual Work Program of Statistics and Geography (PAEG); reviewing the PAEG proposal; proposing and analyzing technical standards, Key Indicators, and information that should be considered as IIN, among other activities.

The main tasks of the Technical Committees (CTE) include participating in the elaboration or revision of technical standards; reviewing IIN proposals; and promoting the use of administrative records for statistical or geographical purposes, among others.

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<sup>2</sup> The scope of this Subsystem will be expanded to consider land-use planning and urban development issues as required by recently approved legislation in this domain.

**Recommendation 1.** Adherents put in place a clear **legal and institutional framework** for official statistics, which should in particular provide:

- i) details as to the organization of the NSS, the legal status and role of the NSO, as well as the legal status, functions, relationship, rights and responsibilities of other institutions within the NSS;
- ii) a clear mandate for institutions of the NSS to collect data for statistical purposes.

**Good practice 1.1:** Existence of a comprehensive and coherent statistical legislation periodically revised and amended. The statistical legislation defines the nature of official statistics; the legal framework for the compilation, production and dissemination of official statistics; the legal status, role in the system, functions, relationship, rights and responsibilities of institutions within the NSS; the mandate for data collection; the coverage of statistical activities; and the role, functions and composition of the Statistical Council. The statistical legislation also regulates the organization of the NSS; the independence of the NSO and its head; the relationship between the producers of statistics and respondents; the access to administrative records and their use for statistical purposes; the dissemination policy; the legal infrastructure for ensuring the confidentiality and the penalties in case of breach of confidentiality; budget issues; the availability of sufficient resources for financing statistical programs, the international statistical co-operation, and the coordination of statistical activities within the country's statistical system.

**Good practice 1.2:** Laws and regulations governing the collection, compilation and production of official statistics are consistent with the Fundamental Principles of Official Statistics of the United Nations.

**Good practice 1.3:** Statistical authorities have a clear mandate for data collection and the authority to compel respondents to comply with data requests (e.g. the Population and Housing Census, Agricultural Census, surveys, administrative sources, etc.). In the case of Population and Housing Census, the obligation for citizens to participate and to respond to the questionnaires is legally binding and established by law.

**Good practice 1.4:** Statistical authorities are required by law to conduct a Census of Population and Housing and a Census of Agriculture at least every ten years.

**Good practice 1.5:** Statistical laws and regulations are publicly available.

## Response from adherent on Recommendation 1:

*Please enumerate the main strengths and weaknesses identified with regard to recommendation 1. Are other good practices relevant to this recommendation implemented in your country? What kind of actions do you consider important to improve the situation as regards recommendation 1 in your country?*

In 2006 a new era for official statistics begins in Mexico, as a result of the constitutional amendment that created the National System of Statistical and Geographical Information (SNIEG). Two years later, the SNIEG Law (LSNIEG) defined the objectives, conditions and functioning of the System. This law establishes the mandate, conditions and responsibilities for the production and dissemination of official statistics and geographical information, as required by international recommendations.

### **Main strengths and other good practices**

This section describes the LSNIEG as it addresses the good practices associated with Recommendation 1. The remaining of the self-assessment presents complementary regulations, available resources, as well as actions implemented to comply with the LSNIEG.

- 1. The Mexican Constitution mandates the creation of the National System of Statistical and Geographical Information (SNIEG) and its coordination by an autonomous public institution.**

In 2006, Article 26 of the Mexican Constitution was amended establishing the creation of a National System of Statistical and Geographical Information, whose data will be considered official and their use will be mandatory for the Federation, the States, Mexico City and the municipalities. The amendment also considered enacting a law to define the SNIEG organization and functioning based on the principles of accessibility, transparency, objectivity and independence. Moreover, it stipulates that an autonomous public institution will be responsible for the SNIEG coordination and regulation (Article 26; paragraph B).

- 2. The SNIEG Law (LSNIEG) regulates the National Statistical System; the rights and obligations of the respondents; the organization and functioning of the National Institute of Statistics and Geography (INEGI), and the administrative offences and defense means against the Institute resolutions.**

The LSNIEG was enacted in 2008 and is consistent with the UN Fundamental Principles of Official Statistics. The main issues considered in this law include the following:

*i. The SNIEG objectives*

The SNIEG is aimed at providing quality, relevant, accurate and timely IIN to support national development. Its objectives are the production, timely dissemination and preservation of statistical and geographical information, as well the promotion of its knowledge and use. (Articles 3 and 4)

*ii. Definition of the nature of official statistics*

The LSNIEG defines the nature of the IIN, the processes for its collection, production and dissemination, as well as its official use. In addition, the law entitles the INEGI to issue general rules for collecting, processing and publishing statistical and geographical information, and specifies what information should be produced exclusively by the INEGI. Finally, the law stipulates that government agencies could produce and disseminate additional official statistics (Articles 6, 58, 59, 77 section II and VIII, and 78; and Rules for the Determination of the IIN, No. 9 and 19).

The IIN is determined by the INEGI Governing Board considering the following criteria:

- a. It should address the following topics, data groups and indicators: population and demographic dynamic; health; education; employment; income distribution and poverty; public safety and law enforcement; government; housing; national accounts; financial information; prices; labor; science and technology; telecommunications; biodiversity; atmospheric data; water and land resources; vegetation; wildlife; hazardous and solid waste; geodesic information; boundaries; continental and insular relief data; bathymetric data; cadastral and topographic information; natural resources and climate; geographical names; and others topics approved by the National Advisory Council (CCN).
- b. It is necessary for public policy design and evaluation, at the national level.
- c. It is generated regularly and periodically.
- d. It is produced using sound methodologies.

In addition, information necessary for preventing and coping with natural disasters, as well as information required to comply with an international treaty can be considered as IIN.

National Censuses, National Accounts, and Consumer and Producer Price Indexes are considered as IIN by the LSNIEG and should be produced only by INEGI.



### *iii. Roles and responsibilities of the SNIEG members<sup>3</sup>*

The SNIEG is integrated by:

a. National Advisory Council (CCN)

It is a collegiate body in charge of providing advice on statistical and geographical activities (Articles 14 and 15)

b. Information Subsystems

They are functional divisions of the SNIEG aimed at producing, integrating and disseminating information on specific topics. The INEGI Governing Board may create additional Subsystems considering CCN consultation. Each Subsystem has an Executive Committee integrated by the relevant UE and is headed by one of INEGI vice presidents (Articles 17, 29, 30 and INEGI Governing Board Resolution 4<sup>a</sup>/X/2008).

c. The National Institute of Statistics and Geography (INEGI)

The INEGI is the National Statistical Office and is the central unit responsible for the SNIEG regulation, coordination and efficient operation. Moreover, it may request statistical and geographical information required by the SNIEG.

In addition, *Unidades del Estado* (UE) are specific units within government agencies –including the Executive, Legislative and Judicial Branches at the federal, state and municipal level, as well as autonomous public institutions and the federal administrative courts– in charge of carrying out statistical or geographical activities, including the collection of administrative data used for IIN production. As information producer, INEGI is also considered as a UE. (Article 3 section XV)

UE participate in the SNIEG through the National Advisory Council, the Executive Committees and the Technical Committees (Articles 8, 14, 29 y 31 and Technical Committees Operating Rules, No. 21)

The main tasks of the UE participating in IIN production, integration, preservation and dissemination include complying with the SNIEG rules, principles and IIN general provisions; proposing technical standards and methodologies; providing access to data requested by the INEGI; protecting and preserving information, as well as metadata and methodology reports.

### *iv. Coverage of statistical activities and information infrastructure*

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<sup>3</sup> For more information, see the response to Recommendation 10.

The SNIEG thematic coverage and information infrastructure is defined by the scope of each Information Subsystem:

- a. Demographic and Social Information (Articles 20, 21 and 22) includes population and demographic dynamics, health, education, employment, income distribution, poverty and housing. Its information infrastructure should consider at least a geostatistical framework and a housing inventory (INV).
- b. Economic Information (Articles 23, 24 and 25) includes National Accounts, science and technology, financial information, prices and labor. Its information infrastructure should consider at least a geo-statistical framework and a business registry.
- c. Geographic and Environmental Information (Articles 26, 27 and 28) includes geodesic information, boundaries, continental and insular relief data, bathymetric data, cadastral and topographic data, natural resources and climate, as well as geographical names. Moreover, the environment component includes natural resources, atmospheric data, water and land resources, vegetation, wildlife, hazardous and solid waste.
- d. Government, Public Safety and Justice Information (INEGI Governing Board Resolution 4<sup>a</sup>/X/2008) includes public sector management and performance, particularly on public safety and access to law and justice issues. Its information infrastructure should have at least a geo-statistical framework; an administrative records inventory; UE inventory; and a statistical projects and products inventory.

v. *National Statistical Office organization*

The INEGI is an autonomous public institution responsible for the SNIEG coordination, including establishing standards, directives and guidance for data collection and dissemination. In addition, as information producer, the INEGI is responsible for conducting national censuses, integrating the System of National Accounts and calculating price indexes (Articles 52, 55 y 59).

The Governing Board is the highest authority (Articles 67).<sup>4</sup> The INEGI is responsible for its own accounting and payment processing, and submitting spending reports.<sup>5</sup>

vi. *International Statistical Cooperation*

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<sup>4</sup> The INEGI Governing Board responsibilities and appointment procedures are discussed as part of the response to Recommendation 2.

<sup>5</sup> For more information on resource availability for statistical and geographical activities, see the response to Recommendation 3.

IIN requests formulated by a foreign government and international agencies should be notified to the INEGI and answered directly by the authority, organization, group or individual receiving the request. (Article 51 and Rules for Replying to IIN International Requests)

The LSNIEG also states that the INEGI should support the Federal Government and the Senate on statistical and geographical information matters established in international treaties and agreements, as well as on issues related to national boundaries. (Article 64)

*vii. Respondents rights and obligations*

Respondents should provide accurate and timely data requested for statistical purposes. These data are confidential and can be used only for statistical purposes. Respondents have the right to request the rectification of their data and to report any breach of confidentiality.<sup>6</sup> (Articles 37, 41, 42 y 45).

*viii. Access to Administrative Records<sup>7</sup>*

Administrative records are an important source of statistical information. The INEGI should promote the adoption of methods and technical standards to enable the statistical use of data collected from individuals, business, land and other public registries. (Articles 22, 23, 25, 28 y 62).

*ix. Information dissemination<sup>8</sup>*

The Data Access Public Service (SPI) is aimed at IIN dissemination (Article 98). This service should be provided exclusively by the INEGI. Nonetheless, other UE may disseminate statistical information generated by them. (Article 99).

**3. The LSNIEG and other statistical regulations are publicly available.**

The SNIEG legal framework is available on the [SNIEG website](#).

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<sup>6</sup> For more information about directives and procedures for information security, see the response to Recommendation 4.

<sup>7</sup> For more information about access to administrative records for statistical purposes, see the response to Recommendation 5.

<sup>8</sup> For more information about directives and actions for information dissemination, see the response to Recommendation 9.

### **Other good practices**

The SNIEG organization through collegiate bodies has allowed UE participation in decision making about statistical and geographical data production and dissemination. This participation fosters agreements that facilitate the SNIEG coordination.

### **Challenges and Improvement Actions**

Although the SNIEG legal and institutional framework is in line with international recommendations on good statistical practice, one of the key actions in the 2016-2040 Strategic Program (PESNIEG) is to strengthen the regulatory framework to enable a more efficient coordination. Some of the issues that may be considered as part of this objective are:

- a. The confidentiality and privacy implications of exploiting alternative data sources generated by the use of electronic devices (social media, mobile phones, payment terminals, etc.).
- b. Enhanced clarity in the definition of the IIN and its implementation.
- c. Revised criteria for strengthening the determination of the IIN.
- d. Resource planning for newly approved IIN projects.
- e. Mechanisms for monitoring compliance with the SNIEG regulatory framework.

Additionally, it is important to consider:

- Regular updating of statistical regulations to address additional information demands posed by new or amended legislation.
- Promoting a wider dissemination of the SNIEG objectives and directives among UE and the public.
- Intensifying UE training on the SNIEG regulatory framework to consolidate its compliance.

## Supporting Evidence

Document	URL/Location
Constitución Política de los Estados Unidos Mexicanos. Artículo 26, apartado B. (Mexican Constitution, Article 26; paragraph B)	<a href="http://www.diputados.gob.mx/LeyesBiblio/pdf/1_240217.pdf">http://www.diputados.gob.mx/LeyesBiblio/pdf/1_240217.pdf</a>
Ley del Sistema Nacional de Información Estadística y Geográfica (National System of Statistical and Geographical Information Law)	<a href="http://www.snieg.mx/contenidos/espanol/normatividad/marcojuridico/LSNIEG.pdf">http://www.snieg.mx/contenidos/espanol/normatividad/marcojuridico/LSNIEG.pdf</a>
Acuerdo de la Junta de Gobierno 4ª/X/2008 (INEGI Governing Board Resolution 4ª/X/2008)	<a href="http://www.snieg.mx/contenidos/espanol/subsistemas/seg/Creacion%20del%20Subsistema%20de%20Seguridad.pdf">http://www.snieg.mx/contenidos/espanol/subsistemas/seg/Creacion%20del%20Subsistema%20de%20Seguridad.pdf</a>
Reglas para la Atención de Requerimientos Internacionales de Información de Interés Nacional (Rules for Replying to IIN International Requests)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad Vigente/Archivos NV/Reglas para la atencionRequerimientos Internacionales%20de%20IIN.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad Vigente/Archivos NV/Reglas para la atencionRequerimientos Internacionales%20de%20IIN.pdf</a>
Reglas para la Integración y Operación de los Comités Ejecutivos de los Subsistemas Nacionales de Información (Executive Committees Operating Rules)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad Vigente/Archivos NV/Reglas comites ejecutivos.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad Vigente/Archivos NV/Reglas comites ejecutivos.pdf</a>
Reglas para la Integración y Operación de los Comités Técnicos Especializados de los Subsistemas Nacionales de Información (Technical Committees Operating Rules)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad Vigente/Archivos NV/Reglas CTE%20081216.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad Vigente/Archivos NV/Reglas CTE%20081216.pdf</a>
Reglas para la determinación de la Información de Interés Nacional (Rules for the Determination of the IIN)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad Vigente/Archivos NV/Reglas Determinacion Informacion Interes Nacional.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad Vigente/Archivos NV/Reglas Determinacion Informacion Interes Nacional.pdf</a>
Glosario del SNIEG (SNIEG Glossary)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad Vigente/Archivos NV/Glosario Normatividad SNIEG.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad Vigente/Archivos NV/Glosario Normatividad SNIEG.pdf</a>

**Recommendation 2.** Adherents ensure professional independence of National Statistical Authorities. To this end, Adherents should ensure that the National Statistical Authorities:

- i) are professionally independent from other policy, regulatory or administrative departments and bodies, as well as from private sector operators, considering that professional independence of the producers of official statistics is essential for the production and the dissemination of objective statistics;
- ii) have the exclusive authority, as part of their professional independence, to decide on statistical methods and dissemination;
- iii) are protected, through the inclusion of explicit provisions in statistics legislation, from political and other interference in developing, compiling and disseminating official statistics.

**Good practice 2.1:** The professional independence of the Statistical Authorities from other policy, regulatory or administrative departments and bodies, as well as from private sector operators in compiling and disseminating official statistics is explicitly guaranteed by law, and ensured in practice by all entities of the NSS.

**Good practice 2.2 (adopted from the European Statistics Code of Practice):** The Head of the NSO, and where appropriate, the heads of other National Statistical Authorities, have responsibility for ensuring that statistics are developed, produced and disseminated in an independent manner.

**Good practice 2.3 (adopted from the European Statistics Code of Practice):** The Head of the NSO, and where appropriate, the heads of other National Statistical Authorities, have the sole responsibility for deciding on statistical methods, standards and procedures, and on content and timing of statistical releases.

**Good practice 2.4 (adopted from the European Statistics Code of Practice):** The Head of the NSO, and where appropriate, the heads of other National Statistical Authorities, have sufficiently high hierarchical standing to ensure senior level access to policy authorities and administrative public bodies. They are of the highest professional caliber.

**Good practice 2.5 (adopted from the European Statistics Code of Practice):** The appointment of the Head of the NSO and, where appropriate, the heads of other National Statistical Authorities, is based on professional competences only. The reasons on the basis of which the incumbency can be terminated are specified in the legal framework. These cannot include reasons compromising professional or scientific independence.

**Good practice 2.6:** National legislation provides a clear and detailed description of the procedure for appointment and dismissal of the Head of NSO. A list of conditions under which the Head of NSO can be dismissed is provided for by law.

**Good practice 2.7:** A clear reporting system for the Head of NSO is provided by law in order to ensure and reinforce its technical independence.

**Good practice 2.8 (adopted from the European Statistics Code of Practice):** The statistical work programs are published and periodic reports describe progress made.

**Good practice 2.9 (adopted from the European Statistics Code of Practice):** Statistical releases are clearly distinguished and issued separately from political/policy statements.

**Good practice 2.10 (adopted from the European Statistics Code of Practice):** The NSO, and where appropriate, other Statistical Authorities, comment publicly on statistical issues, including criticisms and misuses of statistics as far as considered suitable.

**Good practice 2.11:** Data collection, data production, and release of information are ensured without formal approval from third parties.

**Good practice 2.12:** A Statistical Council including external experts advises the Heads of National Statistical Authorities on strategic statistical issues. The nature of the Statistical Council and the reporting arrangements to government are provided for by law.

### Response from adherent on Recommendation 2:

*Please enumerate the main strengths and weaknesses identified with regard to recommendation 2. Are other good practices relevant to this recommendation implemented in your country? What kind of actions do you consider important to improve the situation as regards recommendation 2 in your country?*

The following section discusses the SNIEG main strengths in ensuring professional independence in the production and dissemination of official statistics from the standpoint of the legal framework. Examples of the resulting operation and activities can be found throughout the rest of the document.<sup>9</sup>

### Main strengths and other good practices

**1. The INEGI autonomy, granted by the Constitution, is one of the pillars of professional independence in statistical production and dissemination.**

The Mexican Constitution establishes that the INEGI is a public entity with technical and managerial autonomy, legal personality and its own assets. As a result, INEGI management, decision-making, and technical resolutions are independent from other policy, regulatory or administrative authorities (Article 26, paragraph B).

**2. Independence is one of the SNIEG guiding principles and it is incorporated in the Code of Ethics and the Code of Practice.**

The Mexican Constitution defined information accessibility, transparency, objectivity and *independence* as the SNIEG guiding principles. These principles are incorporated in the LSNIEG and other regulatory documents. Specifically, independence is one of the conducts expected from the UE, as indicated in the Code of Ethics. In this document, independence is defined as acting free of any type of pressures from interest groups in the production and dissemination of official statistics.

In addition, the SNIEG Code of Practice establishes the following guidelines:

- i. UE independence in the development, production and dissemination of official statistics is explicitly addressed in the legal framework.
- ii. UE are responsible for ensuring that official statistics are developed, produced and disseminated without external interference.

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<sup>9</sup> The compliance with good practices related to impartiality and objectivity in statistics dissemination (2.9 and 2.10) is analyzed as part of the response to Recommendation 6.

- iii. UE have the sole responsibility for deciding on statistical methods, standards and procedures, and on content and timing of statistical releases.

Finally, staff of INEGI are required to sign an agreement for compliance of the Code of Ethics. In addition, observance of the Code of Ethics and the Code of Practice is promoted through the SNIEG Committees and the CCN.

**3. The Governing Board is the highest governing body of INEGI. The LSNIEG defines the Board responsibilities, as well as the conditions for the appointment and dismissal of its members. These conditions support the INEGI professional independence.**

The five members of the Board are nominated by the President and approved by the Senate. The INEGI President is appointed by the President from among the Board members. The rest of the members will act as Vice-presidents (Article 67). The hierarchical level of the Board members is equivalent to the level of an undersecretary in the Federal Government (Article 76).

INEGI President is the chief executive authority. She or he serves a term of six years, beginning on January 1<sup>st</sup> of the fourth year of each Administration. The rest of the Board members serve a term of eight years; their terms are phased in every two years (Article 68).

According to the LSNIEG, the Board members must be either a distinguished professional in the fields of statistics, geography or economy, with at least five years of experience in a high-level position in the public or private sectors, or a well-known academic in the same fields (Article 69).

The LSNIEG also specifies the reasons for dismissal of the Board members including the following (Article 73):

- i. Physical or mental illness that prevents carrying out their duties for more than three months;
- ii. Performing other jobs, except for unpaid teaching, scientific, cultural or charitable activities;
- iii. Using confidential information for personal or a third-party benefit;
- iv. Participating in political, partisan or religious acts on behalf of INEGI, and
- v. Failing to abstain from participating in official decision-making involving a conflict of interest.

The Board members shall not participate in political, partisan or religious acts on behalf of INEGI (Article 72).

The INEGI Governing Board responsibilities include the following (Article 77):

- i. Approving the SNIEG work programs (annual, medium-term and strategic);
- ii. Establishing the SNIEG operating rules and guiding the production and dissemination of official statistics;
- iii. Creating additional Information Subsystems;
- iv. Selecting official statistics that will be considered as IIN, and
- v. Approving the release calendar for the IIN.

The Board together with the INEGI's Directors General have the sole responsibility for deciding on statistical methodologies for producing the IIN.<sup>10</sup>

The Board also approves technical standards, considering proposals previously approved by the SNIEG Committees that have been subject to public consultation.

Finally, the Board approves INEGI's policies for general services, human resource and financial management, and the appointment and dismissal of top management.

#### **4. The SNIEG accountability mechanisms are clearly defined in the SNIEG Law.**

Statistical and geographical activities are carried out following the SNIEG work programs approved by the Board. Every year the INEGI reports to the Congress and the Federal Executive Branch (Article 86):

- a. The results of the annual work program (PAEG) implementation;
- b. The activities of the SNIEG Committees and the National Advisory Council (CCN), and
- c. The budget execution.

In addition, the SNIEG 2016-2040 Strategic Program (PESNIEG) should be assessed every six years.

The SNIEG work programs and implementation monitoring reports are publicly available. The President may be summoned by the Congress to report on INEGI policies and activities.

#### **5. The SNIEG has a National Advisory Council for counseling on statistical and geographical activities. In addition, external non-governmental experts advise INEGI through the Academic Advisory Council and the User Advisory Council.**

As mentioned earlier, the National Advisory Council (CCN) is aimed at advising INEGI Governing Board on statistical and geographical activities for the production, integration and dissemination of the IIN. (Article 15).

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<sup>10</sup>For more information on the selection, review and publication of methodologies, see the response to Recommendation 7.



The CCN members include the INEGI President; one representative from each Ministry of the Federal Public Administration; one representative of the Federal Judicial Branch; one representative of each Chamber of Congress; five representatives of the State Governments; one representative of the Central Bank, and one representative of the Federal Telecommunications Institute (Article 14).

The CCN may invite external experts to give their opinion on specific issues (RIFCCN, Rule No. 9). CCN activities are reported through the Minutes of the meetings and the Annual Report.

External non-governmental experts advise INEGI through the Academic Advisory Council (CCA) the User Advisory Council (CCU). The first is aimed at advising on issues related to SNIEG training, research and dissemination activities, whereas the latter provides advice on emerging demands and priorities for statistical and geographic information, user satisfaction monitoring and statistics dissemination and communication activities.

### **Other good practices**

The Governing Board approval of the creation of the Government, Public Safety and Justice Information Subsystem is an example of INEGI professional independence. This Subsystem was not originally considered in the LSNIIEG. Nonetheless, it was necessary to operate a coordinated scheme for the production and dissemination of statistics on the characteristics and performance of public institutions, particularly those in charge of public safety, law enforcement and access to justice.

### **Challenges and Improvement Actions**

Although INEGI technical and management autonomy is the main pillar of the SNIEG independence, it is important to promote professional independence among the UE that do not have autonomy. Hence, it would be useful to review the experience in other OECD countries to ensure the professional independence of statistical authorities other than Central Banks and National Statistical Offices.

Furthermore, although INEGI benefits from the advice of external non-governmental experts through the User Advisory Council and the Academic Advisory Council, it would be useful to link their recommendations to those of the National Advisory Council.

## Supporting Evidence

Document	URL/Location
Constitución Política de los Estados Unidos Mexicanos. Artículo 26, apartado B. (Mexican Constitution, Article 26, paragraph B)	<a href="http://www.diputados.gob.mx/LeyesBiblio/pdf/1_240217.pdf">http://www.diputados.gob.mx/LeyesBiblio/pdf/1_240217.pdf</a>
Ley del SNIEG Artículos: 3, 14, 15, 16, 30, 32, 52, 59, 67, 68, 69, 71, 73, 74, 75, 80, 86 (SNIEG Law, Articles 3, 14, 15, 16, 30, 32, 52, 59, 67, 68, 69, 71, 73, 74, 75, 80, 86)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Principios_Buenas_Practicas_Es_Geo_SNIEG.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Principios_Buenas_Practicas_Es_Geo_SNIEG.pdf</a>
Código de Ética del SNIEG (SNIEG Code of Ethics)	<a href="http://www.snieg.mx/contenidos/espanol/normatividad/marcojuridico/Codigo_Etica_del_SNIEG.pdf">http://www.snieg.mx/contenidos/espanol/normatividad/marcojuridico/Codigo_Etica_del_SNIEG.pdf</a>
Principios y Buenas Prácticas para las Actividades Estadísticas y Geográficas del SNIEG (SNIEG Code of Practice)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Principios_Buenas_Practicas_Es_Geo_SNIEG.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Principios_Buenas_Practicas_Es_Geo_SNIEG.pdf</a>
Reglamento Interior del INEGI Artículos: 4, 5, 6, 7, 8 y 10 (INEGI Internal Regulations, Articles 4, 5, 6, 7, 8 and 10)	<a href="http://sc.inegi.org.mx/repositorioNormateca/RII/INEGI_16.pdf">http://sc.inegi.org.mx/repositorioNormateca/RII/INEGI_16.pdf</a> .
Reglas para la integración y funcionamiento del Consejo Consultivo Nacional (RIFCCN) (National Advisory Council Operating Rules -RIFCCN)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Reglas_consejo_consultivo.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Reglas_consejo_consultivo.pdf</a>
Programas e Informes del SNIEG (SNIEG Programs and Reports)	<a href="http://www.snieg.mx/Default.aspx#top">http://www.snieg.mx/Default.aspx#top</a>
Memoria del CCN 2008-2015 (Memory of the CCN 2008-2015)	<a href="http://www.snieg.mx/contenidos/espanol/consejo/Memoria_CCN_2008-2015.pdf">http://www.snieg.mx/contenidos/espanol/consejo/Memoria_CCN_2008-2015.pdf</a>
Actas de las Sesiones del CCN (Minutes of the CCN Sessions)	SNIEG > Consejo Consultivo Nacional > Sesiones <a href="http://www.snieg.mx/Default.aspx#top">http://www.snieg.mx/Default.aspx#top</a>
Consejo Consultivo Nacional. Informe 2016 (National Advisory Council. Report 2016)	<a href="http://www.snieg.mx/contenidos/espanol/consejo/informes/CCN_Informe_2016.pdf">http://www.snieg.mx/contenidos/espanol/consejo/informes/CCN_Informe_2016.pdf</a>
Reglas para la Integración y Funcionamiento del Consejo Consultivo Académico del Instituto Nacional de Estadística y Geografía (Academic Advisory Council Operating Rules)	<a href="http://cca.inegi.org.mx/downloads/Reglas%20de%20Integracion%20y%20Funcionamiento.pdf">http://cca.inegi.org.mx/downloads/Reglas%20de%20Integracion%20y%20Funcionamiento.pdf</a>
Reglas para la integración y funcionamiento del Consejo Consultivo de Usuarios de la Información del Instituto Nacional de Estadística y Geografía. (Users Advisory Council Operating Rules).	<a href="http://sc.inegi.org.mx/repositorioNormateca/Oda_30Sep15.pdf">http://sc.inegi.org.mx/repositorioNormateca/Oda_30Sep15.pdf</a>

**Recommendation 3.** Adherents ensure adequacy of human, financial and technical resources available for the production and dissemination of official statistics. To this end, Adherents should ensure that resources are:

- i) sufficient to allow National Statistical Authorities to meet their commitment to quality, and to meet professional standards thereby fulfilling their role as providers of reliable, relevant and accessible data for national and international use;
- ii) adequate to produce a minimum core set of data, to be defined nationally or internationally, to monitor the economy, society and the environment.

**Good practice 3.1:** National Statistical Authorities have sufficient funding for statistical production and dissemination, to support staff training, to develop computing resources, and to implement innovation. Resources are adequate in magnitude and in quality to meet statistical needs.

**Good practice 3.2:** The adequacy of resources is regularly monitored.

**Good practice 3.3 (adopted from the European Statistics Code of Practice):** The scope, detail and costs of statistics are commensurate with needs.

**Good practice 3.4 (adopted from the European Statistics Code of Practice):** Procedures exist to assess and justify demands for new statistics against their cost.

**Good practice 3.5 (adopted from the European Statistics Code of Practice):** Procedures exist to assess the continuing need for all statistics, to see if any can be discontinued or curtailed to free up resources.

**Good practice 3.6 (adopted from the European Statistics Code of Practice):** National Statistical Authorities implement a policy of continuous vocational training for their staff.

### Response from adherent on Recommendation 3:

*Please enumerate the main strengths and weaknesses identified with regard to recommendation 3. Are other good practices relevant to this recommendation implemented in your country? What kind of actions do you consider important to improve the situation as regards recommendation 3 in your country?*

INEGI's regular budget approved in 2016 was \$6.47 billion *pesos* (US\$ 346.17 million),<sup>11</sup> which represents 0.03% of the national GDP (see Table 3.1). In addition, \$1.25 billion *pesos* (US\$ 67.04 million) were authorized as part of the National Censuses Program for the National Agricultural Survey and the 2015 Inter-Census Survey. Figure 3.1 shows that the regular budget has remained stable in real terms since the INEGI became an autonomous institution.

**Table 3.1: INEGI's Approved Budget, 2008-2016  
(Mexican *pesos*, billions)**

Budget program	2008	2009	2010	2011	2012	2013	2014	2015	2016
A. Budget for regular activities	3.24	4.32	4.10	4.31	4.87	4.95	5.53	5.91	6.47
B. Budget for National Censuses	.39	3.32	4.66	.24	.05	.47	2.30	2.58	1.25
<b>C. Total budget (A + B)</b>	<b>3.64</b>	<b>7.65</b>	<b>8.77</b>	<b>4.55</b>	<b>4.93</b>	<b>5.42</b>	<b>7.84</b>	<b>8.49</b>	<b>7.72</b>
Total budget as a percentage of GDP <sup>a/</sup>	0.03%	0.06%	0.07%	0.03%	0.03%	0.03%	0.05%	0.05%	0.04%
Budget for regular activities as a percentage of GDP <sup>a/</sup>	0.03%	0.04%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%

Note: Original budget approved by Congress.

<sup>a/</sup> INEGI. SCNM. Quarterly GDP, 1993-2017.

### Main strengths and other good practices

This section discusses the SNIEG main strengths in terms of the availability of financial, human and technical resources for the production and dissemination of official statistics. First, the legal framework for INEGI's budget management is described. Second, the availability of resources and the mechanisms for their allocation and monitoring are reviewed. Finally, the characteristics of the INEGI human resources are examined.

- 1. According to the legislation, INEGI has managerial autonomy and authority over its assets.**

The LSNIEG establishes that INEGI's assets are integrated by (Article 82):

- Fixed and non-fixed assets
- Annual budget approved by Congress
- Donations
- Other revenues

<sup>11</sup> The US dollar figures are calculated by using the annual average FIX exchange rate (<http://www.banxico.org.mx/>)

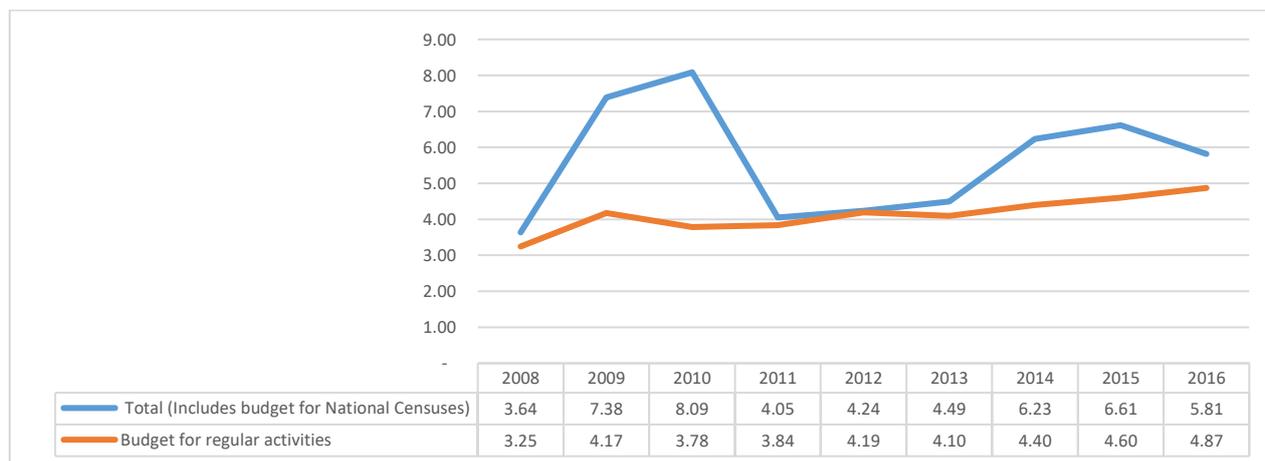
The LSNIEG also states that INEGI’s annual budget allocation should consider the resources required for conducting national censuses, integrating the System of National Accounts and calculating the price indexes. The implementation of additional statistical and geographical activities will be subject to budget availability (Article 83).

Moreover, the legislation authorizes INEGI to approve its own budget proposal, according to the expenditure limits established by the Federal Executive Branch. INEGI may execute its budget and amend its allocation without external approval, on condition that the overall ceiling and the corresponding regulations are observed (Article 83).

**2. INEGI funding for the production and dissemination of official statistics has been mostly adequate since it became an autonomous institution.**

INEGI funding has been sufficient to meet most of the commitments derived from the SNIEG Law, including the SNIEG coordination and the production and dissemination of official statistics (see Figure 3.1). Specifically, the INEGI has released the price indexes and national accounts statistics in a timely manner. In addition, it conducted the Population and Housing Census in 2010 and the Economic Censuses in 2009 and 2014. Moreover, it carried out the Inter-Census Survey in 2015 and two Agricultural Surveys in 2012 and 2014. Finally, other statistical and geographical activities have been implemented, according to the Annual Work Programs.

**Figure 3.1: INEGI’s Approved Budget, 2008-2016  
(Constant Mexican pesos 2008 = 100, billions)**



Note: Original budget approved by Congress.

**3. INEGI monitors regularly the adequacy of resources through the Budgeting and Financial Management System (SAPFIN) and the Integrated Administration System (SIA-Metas).**

The distribution of financial resources is aimed at ensuring institutional objectives. Consequently, performance indicators and targets should be feasible and consistent with the expected availability of resources. The relationship between objectives, strategies and the budget is outlined in the INEGI Annual Work Program (PAT).

There are two systems used for monitoring the adequacy of resources. The Budgeting and Financial Management System (SAPFIN) is used for monitoring budget execution, whereas the “Integrated Administration System” (SIA-Metas) is used for recording progress in achieving PAT goals and targets. These systems allow INEGI managers to identify early on any problems and take corrective actions.

**5. The INEGI has highly qualified human resources to carry out the coordination tasks, as well as the statistical and geographical activities envisioned by the SNIEG.**

From 2010 to 2016, the INEGI employed on average almost 22,000 persons per year. About 13,000 of them were permanent staff. In 2016, temporary field personnel were on average around 6,000 persons.

The average age of permanent staff is 50 years old. More than half of permanent staff, (58%) have college education; 10% have postgraduate studies, and 17% have technical studies. On average, permanent staff have 20 years of service at INEGI. In the case of the top management team (Director Generals and Deputy Director Generals) the average age is 55 years old, however, there is an ongoing process of generational change.

INEGI Civil Service (SPC) allows the recruitment of qualified personnel through public and open calls, publicly disseminated through the SPC website. The general directorates based on the technical capacities required to perform the jobs’ duties determine Job profiles. Applicants are assessed through technical knowledge exams developed by external academics.

The performance of the civil service personnel is assessed periodically by considering the achievement of individual targets, and their contribution to the institutional objectives, among other factors.

The SPC also includes an Annual Training Program that is being strengthened to ensure that the personnel have the technical knowledge, skills and attitudes required by their work programs.

## Other good practices

The *Día de Café* (Coffee Day) gathers mid-and senior-level personnel across the country to share knowledge about institutional projects and achievements. These periodic meetings seek to create a space for the free exchange of ideas to strengthen the statistical and geographical projects of the different areas.

## Challenges and Improvement Actions

The 2016-2040 PESNIEG includes the following general actions to strengthen compliance with Recommendation 3:

- a. Revising statistical products and services offered to meet the needs of decision-makers in an integrated and cost-effective way.
- b. Identifying emerging statistical needs and defining mechanisms to address them. This may involve analyzing the feasibility of greater UE participation in the production the required statistics.
- c. Introducing cost-effectiveness criteria in the statistics production, as well as strengthening processes standardization and quality controls. As part of this action, mechanisms for cost monitoring could be reinforced to promote greater efficiency.
- d. Strengthening staff technical skills and technological resources. This involves revising the training and development policy of human resources at INEGI and other UE.

Drawing upon these actions, the INEGI Strategic Program 2016-2021 contemplates modernizing its Civil Service; developing a cost-effectiveness assessment model and creating a scheme to meet new statistics demand.

Finally, it is important to mention the following risks and areas for improvement:

### **1. Vulnerability of SNIEG statistical production to fluctuations in public spending and insufficient budget to finance some projects.**

Recent cuts in public spending may result in a decrease in resources allocated to statistical and geographical activities in some UE. For example, the co-financing received by the INEGI from other UE to carry out some statistical projects was reduced in 2017. For this reason, it is necessary to identify the budget allocation for statistical production in other UE, as required by the LSNIEG (Article 85). In this way, it would be possible to monitor the adequacy of resources for the production of IIN and other regular statistical projects in the whole SNIEG.

In addition, it is worth mentioning that recent budget allocations have been insufficient to conduct the Agricultural Census. Instead, the INEGI had to collect survey data.

## 2. Strengthening the adequacy of resources for statistical and geographical activities in other UE.

According to the LSNIEG, UE are required to prepare annual budget proposals for statistical production consistent with the SNIEG work program (Article 33, fraction III). It is necessary to enforce and take advantage of this directive to ensure that UE spending on statistical activities contributes to the adequacy of resources of the SNIEG to meet current statistics needs.

### Supporting Evidence

Document	URL/Location
Presupuesto original autorizado al INEGI por ejercicio fiscal (periodo 2013-2017) (INEGI's Approved Budget, 2013-2017)	Attached document.
Presupuesto anual 2017 autorizado para Servicios para Capacitación a Servidores Públicos (Annual Training Budget 2017)	Attached document.
Ley Federal de Presupuesto y responsabilidad Hacendaria, art. 5 y 6 (Federal Law of Budget and Fiscal Responsibility, Articles 5 and 6)	<a href="http://www.diputados.gob.mx/LeyesBiblio/pdf/LFP_RH_301215.pdf">http://www.diputados.gob.mx/LeyesBiblio/pdf/LFP_RH_301215.pdf</a>
Ley del SNIEG. Artículos 36, 58, 59 y 83 (SNIEG Law, Articles 36, 58, 59 and 83)	<a href="http://www.snieg.mx/contenidos/espanol/normatividad/marcojuridico/LSNIEG.pdf">http://www.snieg.mx/contenidos/espanol/normatividad/marcojuridico/LSNIEG.pdf</a>
Estado del Ejercicio del Presupuesto al 31 de enero de 2017 (Consolidado y por capítulo) (Budget Execution Report as of January 31st, 2017)	Attached document.
Reglas para la determinación de la IIN (Rules for the Determination of the IIN)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Reglas_Determinacion_Informacion_Interes_Nacional.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Reglas_Determinacion_Informacion_Interes_Nacional.pdf</a>
Reporte de Línea de acción 1.5.1 del PAACI 2015-16 (Implementation of a Cost Monitoring System Progress Report)	Attached document.
Informe del Programa Anual Institucional de Capacitación 2016 (Annual Training Program Report 2016)	Attached document.
Reglamento Interior del INEGI (RIINEGI) (INEGI Internal Regulations)	<a href="http://sc.inegi.org.mx/repositorioNormateca/RIINEGI_16.pdf">http://sc.inegi.org.mx/repositorioNormateca/RIINEGI_16.pdf</a>
Programa de Capacitación y Actualización dirigido a los Servidores Públicos de las Unidades del Estado 2016 (Training Program for public servants from the UE, 2016)	<a href="http://www.snieg.mx/contenidos/espanol/inegi_cord/documentacion/PCA_UE_2016.pdf">http://www.snieg.mx/contenidos/espanol/inegi_cord/documentacion/PCA_UE_2016.pdf</a>
Programa de Capacitación y Actualización dirigido a los Servidores Públicos de las Unidades del Estado 2017 (Training Program for public servants from the UE 2017)	<a href="http://www.snieg.mx/contenidos/espanol/inegi_cord/documentacion/PCA_UE_2017.pdf">http://www.snieg.mx/contenidos/espanol/inegi_cord/documentacion/PCA_UE_2017.pdf</a>
Sistema del Servicio Profesional de Carrera (INEGI Civil Service)	<a href="http://www.beta.inegi.org.mx/app/spc">http://www.beta.inegi.org.mx/app/spc</a>

**Recommendation 4. Adherents protect the privacy of data providers (including individuals, households, enterprises, administrations and all levels of government) and guarantee by law the confidentiality of the individual information provided and its use for statistical purposes.**

**Good practice 4.1 (adopted from the European Statistics Code of Practice):** Statistical confidentiality is guaranteed by law.

**Good practice 4.2:** Specific measures are in place to ensure the full protection of individual data from any potential disclosure without consent, with the aim to ensure the confidence of data providers in participating in statistical surveys: written instructions and internal guidelines are provided to statistical authority staff on the full protection of statistical confidentiality in the production and dissemination processes; appropriate penalties are prescribed for willful breach of confidentiality and for any disclosure of individual data of a private nature that could infringe upon private life. These penalties are well-known to statistical staff and new employees sign legal confidentiality commitment upon appointment.

**Good practice 4.3 (adopted from the European Statistics Code of Practice):** The confidentiality policy is made known to the public.

**Good practice 4.4 (adopted from the European Statistics Code of Practice):** Physical, technological administrative and organizational provisions are in place to protect the security and integrity of statistical databases.

**Good practice 4.5:** Provisions are in place and internal guidelines are available to allow external users access to micro-data for statistical research purposes under strict protocols and only after anonymization of the data.

**Good practice 4.6:** Privacy issues as regards the use of new data sources (e.g. social network data) are identified and procedures are implemented to guarantee statistical confidentiality.

#### **Response from adherent on Recommendation 4:**

*Please enumerate the main strengths and weaknesses identified with regard to recommendation 4. Are other good practices relevant to this recommendation implemented in your country? What kind of actions do you consider important to improve the situation as regards recommendation 4 in your country?*

#### **Main strengths and other good practices**

The SNIEG main strengths in protecting the privacy of data providers and guaranteeing data confidentiality and their exclusive use for statistical purposes are discussed in this section. First, the legal framework for data confidentiality is described, followed by a review of regulations and mechanisms implemented for guaranteeing information security. Finally, privacy considerations in microdata access are presented.<sup>12</sup>

- 1. The confidentiality of individual information is guaranteed by the LSNIEG. This law also requires informing data providers about the protection of confidentiality in the processing and dissemination of their data.**

The LSNIEG mandates that the data provided to the UE, as part of statistical and geographical activities, are strictly confidential and should be used only for statistical purposes. This mandate also includes data from administrative records. Data should be processed protecting providers privacy and confidentiality. Data should not be disseminated in nominative or individualized form and cannot be used for fiscal, judicial or administrative purposes (Articles 37 and 38).

The LSNIEG also stipulates the obligation to inform data providers about privacy and confidentiality protection in processing and disseminating their data, as well as, their right to report any violations to confidentiality and reservation principles (Articles 40, section IV and 42).

In addition, the LSNIEG establishes that INEGI will provide access to microdata of national surveys and the Census sample, protecting data providers privacy and data confidentiality (Articles 100 and 38, 46 and 47 of the Rules of Operation of the Microdata Laboratory). INEGI is not obliged to provide information that is confidential, classified, reserved or restricted for dissemination (Article 102, section I).

Finally, the LSNIEG outlines infringements to privacy and confidentiality principles (Articles 104, sections I, II and III and 105 section II), and the corresponding sanctions (Articles 107, 108 and 109).

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<sup>12</sup> Privacy protection when using alternative data sources will be discussed in the response to Recommendation 12

2. **The INEGI has a set of regulations addressing information security that combine preventive and corrective approaches. The preventive approach promotes data confidentiality, integrity and availability. The corrective approach seeks to reduce the impact of possible failures and anticipate corrective measures.**

Security applies to both statistical and geographical data, as well as administrative data, including financial, human and material resources management systems. The main guidelines for INEGI information security are listed below:

- i. Information Security Policies
- ii. Guidelines for Strengthening Information Security in Institutional Processes and Services
- iii. Institutional Protocol for Information Security Incidents
- iv. Criteria for Qualifying Information Assets
- v. General Criteria for the Protection and Safeguarding of Information based on its Contents.

In addition, the INEGI has a set of IT service regulations focused on preserving data confidentiality:

- i. Computer Security Policies
- ii. Policies for Developing Computer Systems
- iii. IT Services Administration and Use Policies
- iv. Manual for the Technological Continuity Plan
- v. Standards for Developing Computer Systems Manual
- vi. Guidelines for Strengthening Information Security in Institutional Processes and Services

IT service regulations define a number of mechanisms to ensure information confidentiality, including information encryption, security perimeter, access control by profile, use of encrypted channels for data transmission, data centers managed as restricted access zones.

3. **The INEGI also implements a set of organizational, administrative, physical and technological measures for guaranteeing information security.**

#### *Organizational and administrative measures*

- a. The Information Security System Committee develops strategies and action plans to ensure data confidentiality, integrity and availability.
- b. Special Information security training for Committee members.
- c. INEGI's personnel must commit to observe a number of measures to ensuring data confidentiality, integrity and availability by signing the "Institutional Principles of Information Security".

- d. Information security training and sensitization was provided to 16,000 civil servants in 2016.
- e. The “Information Security Day” is conducted every two years to raise awareness among all INEGI’s staff on information security issues.
- f. INEGI’s field personnel are trained on methodological, technological and regulatory issues, including directives to ensure data confidentiality, integrity and availability, as well as, resulting sanctions for failing to comply with them.
- g. Use of data access profiles based on individual hierarchical level and job duties.

#### *Physical and technological measures*

- h. A centralized backup system (computer center and alternate site) operates using a distributed data storage and on-demand growth scheme with separate access to public and internal databases. This system incorporates physical access control, monitoring and surveillance mechanisms, alerts, perimeter security and environmental controls.
- i. Databases are protected by encryption, obfuscation, classification, ACL's and Data Leak Prevention (DLP) methods. Database access has high security password control and perimeter protection mechanisms such as firewall, penetration tests, intrusion detection and prevention systems (IDS/ IPS), etc.

#### **4. The terms and conditions for microdata access provided by INEGI are based on a risk management model, considering security aspects of five elements: infrastructure, users, projects, data and results.**

INEGI provides two alternatives for accessing microdata: direct access through the INEGI website, and indirect access through the Microdata Laboratory and the processing service.<sup>13</sup> Microdata access follows a risk management model based on the security of five essential elements: users, infrastructure, projects, data and results. Users of the Microdata Laboratory must have an institutional accreditation; sign the terms and conditions agreement; and receive training before their first session.

The Microdata Laboratory is a restricted area with video surveillance, and controlled access with biometric terminals. Virtual desktops are created, in a high-security *Citrix* server, to deposit the required microdata for each registered research project. Users cannot extract anything from the virtual desktop where they process microdata. Results from data processing are reviewed to verify that they do not violate data confidentiality, only then, users may retrieve the results.

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<sup>13</sup> For more information on access to microdata, see the response to Recommendation 9.

## Other good practices

There are a series of SNIEG guidelines to foster data confidentiality, including:

- i. Code of Ethics: one of the standards of conduct listed in this document is confidentiality, defined as ensuring the privacy of data providers whose data can only be used for statistical or geographical purposes.
- ii. SNIEG Code of Practice: guarantees full access to statistical and geographical data, considering only the limits imposed by protecting data confidentiality.
- iii. Operating Rules for the IIN Repository: they regulate the integration and administration of the IIN Repository.
- iv. Rules for Defining SNIEG Law Infractions and Sanctions: they lay down the LSNIIEG infractions and corresponding sanctions, including violations of data confidentiality.

## Challenges and Improvement Actions

Data protection is a permanent task requiring constant revision of regulations and continuous strengthening of information security measures. For this reason, the 2016-2040 PESNIIEG foresees defining strategies to ensure data preservation, security and confidentiality. These strategies should address the following aspects:

1. Promoting documentation and consistent application of data anonymization and other methods to protect data confidentiality across different types of statistical projects.
2. Fully documenting UE standards and procedures to ensure the privacy of data providers.
3. Developing a data flow scheme to facilitate controls implementation and results measurement, as well as, to conduct database access audits.

## Supporting Evidence

Document	URL/Location
Ley del SNIEG, artículos 37, 38 40, 46, 100, 10, 104, 105, 107, 108, 109 (SNIEG Law, Articles: 37, 38 40, 46, 100, 10, 104, 105, 107, 108, 109)	<a href="http://www.snieg.mx/contenidos/espanol/normatividad/marcojuridico/LSNIEG.pdf">http://www.snieg.mx/contenidos/espanol/normatividad/marcojuridico/LSNIEG.pdf</a>
Código de Ética del SNIEG (SNIEG Code of Ethics)	<a href="http://www.snieg.mx/contenidos/espanol/normatividad/marcojuridico/Codigo_Etica_del_SNIEG.pdf">http://www.snieg.mx/contenidos/espanol/normatividad/marcojuridico/Codigo_Etica_del_SNIEG.pdf</a>
Políticas para la Seguridad de la Información del Instituto Nacional de Estadística y Geografía (Information Security Policies)	<a href="http://sc.inegi.org.mx/repositorioNormateca/Pol_17Dic14.pdf">http://sc.inegi.org.mx/repositorioNormateca/Pol_17Dic14.pdf</a>

Lineamientos para el fortalecimiento de la seguridad de la información en los procesos y servicios institucionales (Guidelines for Strengthening Information Security in Institutional Processes and Services)	<a href="http://sc.inegi.org.mx/repositorioNormateca/OI_10Ago15.pdf">http://sc.inegi.org.mx/repositorioNormateca/OI_10Ago15.pdf</a>
Protocolo Institucional de Respuesta a Incidentes de seguridad de la información (Institutional Protocol for Information Security Incidents)	<a href="http://sc.inegi.org.mx/repositorioNormateca/Oo_10Ago15.pdf">http://sc.inegi.org.mx/repositorioNormateca/Oo_10Ago15.pdf</a>
Criterios para la calificación de activos de información (Criteria for Qualifying Information Assets)	<a href="http://sc.inegi.org.mx/repositorioNormateca/Oda2_20Ene16.pdf">http://sc.inegi.org.mx/repositorioNormateca/Oda2_20Ene16.pdf</a>
Criterios generales para la protección y resguardo de la información con base en sus contenidos (General Criteria for the Protection and Safeguarding of Information based on its Contents)	<a href="http://sc.inegi.org.mx/repositorioNormateca/Oda6_20Ene16.pdf">http://sc.inegi.org.mx/repositorioNormateca/Oda6_20Ene16.pdf</a>
Reglas de Operación del Laboratorio de Microdatos del INEGI (Microdata Laboratory Operation Rules of)	<a href="http://sc.inegi.org.mx/repositorioNormateca/Or_03sep15.pdf">http://sc.inegi.org.mx/repositorioNormateca/Or_03sep15.pdf</a>
Políticas para la seguridad informática (Computer Security Policies)	<a href="http://sc.inegi.org.mx/repositorioNormateca/Pi2_03Jun11.pdf">http://sc.inegi.org.mx/repositorioNormateca/Pi2_03Jun11.pdf</a>
Políticas para el desarrollo de sistemas informáticos (Policies for Developing Computer Systems)	<a href="http://sc.inegi.org.mx/repositorioNormateca/Pi_14Ago15.pdf">http://sc.inegi.org.mx/repositorioNormateca/Pi_14Ago15.pdf</a>
Políticas para la administración y uso de los Servicios Tecnológicos (IT Services Administration and Use Policies)	<a href="http://sc.inegi.org.mx/repositorioNormateca/Pi_18Oct11.pdf">http://sc.inegi.org.mx/repositorioNormateca/Pi_18Oct11.pdf</a>
Manual del Plan de Continuidad Tecnológica del INEGI (Manual for the Technological Continuity Plan)	<a href="http://sc.inegi.org.mx/repositorioNormateca/Mi_07Jul16.pdf">http://sc.inegi.org.mx/repositorioNormateca/Mi_07Jul16.pdf</a>
Manual de estándares para el desarrollo de sistemas informáticos en el Instituto Nacional de Estadística y Geografía (Standards for Developing Computer Systems Manual)	<a href="http://sc.inegi.org.mx/repositorioNormateca/Mdi_26Jun13.pdf">http://sc.inegi.org.mx/repositorioNormateca/Mdi_26Jun13.pdf</a>
Lineamientos generales para la administración y uso de las Tecnologías de Información y Comunicaciones en el INEGI (IT Use and Administration Guidelines)	<a href="http://sc.inegi.org.mx/repositorioNormateca/Ld_gai01Dic14.pdf">http://sc.inegi.org.mx/repositorioNormateca/Ld_gai01Dic14.pdf</a>
Principios y Buenas Prácticas para las Actividades Estadísticas y Geográficas del SNI EG (SNI EG Code of Practice)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Principios_Buenas_Practicas_Es_Geo_SNI EG.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Principios_Buenas_Practicas_Es_Geo_SNI EG.pdf</a>
Reglas para la integración y administración del Acervo de Información de Interés Nacional (Operating Rules for the IIN Repository)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/ACUERDO_Reglas_para_el_AcervoIIN.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/ACUERDO_Reglas_para_el_AcervoIIN.pdf</a>
Medidas de conservación y resguardo de la información de Interés Nacional (Measures for IIN Conservation and Protection)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Medidas_conservacion_y_resguardo_de_laIIN.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Medidas_conservacion_y_resguardo_de_laIIN.pdf</a>
Reglas para la determinación de faltas administrativas e imposición de sanciones, por la comisión de infracciones a la Ley del Sistema Nacional de Información Estadística y Geográfica (Rules for Defining SNI EG Law Infractions and Sanctions)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Reglas_para_la_determinacion_de_infracciones.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Reglas_para_la_determinacion_de_infracciones.pdf</a>
Reglas para la Prestación del Servicio Público de Información Estadística y Geográfica (Operating Rules for the Data Access Public Service)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/ACUERDO_de_Reglas_para_la_PSI EG.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/ACUERDO_de_Reglas_para_la_PSI EG.pdf</a>

Programa de Capacitación 2015-2016 en Materia de Seguridad de la Información (Information Security Training Program 2015-2016)	Attached document.
Reporte de Firma de Principios Institucionales, operativo 2012 (Report on Staff Participation in Institutional Principles Agreement Initiative)	Attached document.
Sección de microdatos en la página del INEGI en Internet (Microdata access section on the INEGI website)	<a href="http://www.inegi.org.mx/est/contenidos/proyectos/accesomicrodatos/">http://www.inegi.org.mx/est/contenidos/proyectos/accesomicrodatos/</a>
Principios Institucionales de Seguridad de la Información (Information Security Institutional Principles)	<a href="http://intranet.sia.inegi.gob.mx/Productos/Encuestas/CartaSI/NuevoIngreso.jsp">http://intranet.sia.inegi.gob.mx/Productos/Encuestas/CartaSI/NuevoIngreso.jsp</a> <a href="http://comunidades.inegi.org.mx/ssi/Documentos%20compartidos/carta%20compromiso%20Principios%20Institucionales%20de%20Seguridad%20de%20la%20Informacion.pdf">http://comunidades.inegi.org.mx/ssi/Documentos%20compartidos/carta%20compromiso%20Principios%20Institucionales%20de%20Seguridad%20de%20la%20Informacion.pdf</a>

**Recommendation 5.** Adherents ensure the right to access administrative sources to produce official statistics. To this end, Adherents should ensure that:

i) National Statistical Authorities have the right to access administrative data for the regular production of official statistics and to use them in the interest of ensuring quality of official statistics, raising the analytical value of official statistics, reducing burden on survey respondents and reducing cost of statistical programs;

ii) National Statistical Authorities co-operate with owners of administrative records as regards their statistical quality and have authority to influence their design to ensure they are fit for statistical purposes.

**Good practice 5.1:** The Statistical Authorities are authorized by law to use administrative records for the regular production of official statistics.

**Good practice 5.2:** Administrative sources are used whenever possible and cost-effective to avoid duplicating request for information and reduce reliance on direct surveys.

**Good practice 5.3 (adopted from the European Statistics Code of Practice):** National Statistical Authorities are involved in the design of administrative data in order to make administrative data more suitable for statistical purposes.

**Good practice 5.4 (adopted from the European Statistics Code of Practice):** National Statistical Authorities co-operate with owners of administrative data in assuring data quality.

**Good practice 5.5 (adopted from the European Statistics Code of Practice):** Agreements are made with owners of administrative records which set out their shared commitment to the use of these data for statistical purposes.

**Good practice 5.6:** Recommended practices are available for the reporting and presentation of administrative data.

**Good practice 5.7:** Linking administrative data with survey data is encouraged by National Statistical Authorities with the aim of reducing the burden on respondents, reducing the costs in producing official statistics, and increasing the analytical value of official statistics.

**Response from adherent on Recommendation 5:**

*Please enumerate the main strengths and weaknesses identified with regard to recommendation 5. Are other good practices relevant to this recommendation implemented in your country? What kind of actions do you consider important to improve the situation as regards recommendation 5 in your country?*

The INEGI has established agreements and procedures with various UE to produce regular statistics from administrative records. One of the advantages offered by the statistical use of administrative records is the geographical breakdown of the data. Table 5.1 lists the statistics regularly produced by INEGI from administrative records.

**Table 5.1 Statistics Produced from Administrative Records**

<p><u>Economic statistics</u></p> <ul style="list-style-type: none"> <li>● Ground transportation accidents in urban and suburban areas, 1997-2015</li> <li>● Merchandise Trade Balance 2008-2015</li> <li>● Exports by state, 2012-2015</li> <li>● State and Municipal Public Finances, 1989-2015</li> <li>● Mining and metallurgical industry, 1980-2017</li> <li>● Manufacturing industry, maquila and export services program (IMMEX), 2007-2016</li> <li>● Cattle slaughtering in municipal slaughterhouses, 2008-2016</li> <li>● Urban passenger transport, 1986-2017</li> <li>● Registered motor vehicles in circulation, 1980-2015</li> </ul>	<p><u>Vital statistics</u></p> <ul style="list-style-type: none"> <li>● Deaths, 1990-2015</li> <li>● Fetal deaths, 1985-2015</li> <li>● Natality, 1985-2015</li> <li>● Marriages, 1993-2015</li> <li>● Divorces, 1985-2015</li> </ul>
<p><u>Public security and justice statistics</u></p> <ul style="list-style-type: none"> <li>● Statistics of human rights public organisms, 2013-2015</li> <li>● Law enforcement in criminal matters, 2014</li> </ul>	<p><u>Social statistics</u></p> <ul style="list-style-type: none"> <li>● Labor relationship of local jurisdiction, 1991-2015</li> <li>● Private health establishments, 2004-2015</li> </ul>

These statistical projects are available at <http://www.inegi.org.mx/est/contenidos/proyectos/registros/default.aspx>

**Main strengths and other good practices**

The main strengths of the SNIEG in using of administrative records to produce official statistics are presented below. First, the legal framework for accessing administrative records and the technical regulations for its exploitation is considered. Next, the activities carried out for the use and strengthening of administrative records, and their linkage with households and establishments surveys are presented.

- 1. According to the SNIEG legal framework, the INEGI may request UE administrative records to produce official statistics. It may also promote the adoption of technical methods and standards in the collection of administrative data.**

The LSNIIEG considers administrative records used in the IIN production as key data sources. In addition, it entrusts INEGI with the task of promoting the adoption of technical methods and standards for administrative data collection. For this purpose, INEGI should collaborate with the authorities responsible for administering directories of natural or legal persons, cadastral registry, real estate property, commerce registers and other administrative records to obtain statistics (Articles 22, 23, 25, 28 and 62).

The LSNIIEG also establishes that UE and other data providers are obliged to provide data for statistical purposes (Articles 33 paragraph V and 45).

- 2. The SNIEG production of official statistics from administrative records is based on a generic process.**

The "Standard Process for the Use of Administrative Records" is part of the SNIEG technical documentation. This document proposes a generic model for producing statistical data using administrative records collected by UE. This model can be used for:

- Implementing processes for the statistical use of administrative records.
- Revising processes to improve its effectiveness in producing statistical information.
- Training in selected areas or phase of the process, according to detected needs.

- 3. INEGI has collaboration agreements with other UE for exploiting and strengthening administrative records for statistical purposes.**

Some examples of collaborative projects for accessing, using and strengthening administrative records are the following:

Project Name	Objectives and scope	UE participants
Merchandise Trade Balance	As part of the regular activities of the Technical Committee on Foreign Trade Statistics, changes in the administrative records of the Customs Authority are reviewed to consider their repercussions in their statistical use.	Service of Tax Administration, Ministry of Economy and Central Bank

Project Name	Objectives and scope	UE participants
National accounts	To avoid the duplicity of data requests and reducing the reliance on surveys, mechanisms and tools were created for collecting information from administrative records, such as fiscal data from the Tax Administration Service or Central Bank databases on flows and stocks of financial transactions.	Tax Administration Service and Central Bank
Access to justice in criminal cases	Administrative records of the State Superior Courts are used to produce statistics on access to justice.	States Superior Courts
Integrated System of Statistics on Violence against Women	An information system including a set of statistics from the main data sources on the types, magnitude, forms and intensity of violence against women was developed.	National Institute for Women (INMUJERES), Ministry of Health, National Population Council, National Commission to Prevent and Eradicate Violence against Women
Statistical Record on Environmental Complaint (REDA)	Information from the Administrative Records Database on Environmental Complaints is used to produce statistics, indicators and geospatial information that describe the status and trend of the environmental situation in Mexico.	Federal Attorney for Environmental Protection (PROFEPA)
Identification of property omissions in cartography.	Technical advice was provided on the methodology for producing cartography on the cadastral data, as well as for the exchange and use of cadastral information.	Cadastral Registry of the municipality of <i>Bahía de Banderas, Nayarit</i> .
Vital statistics	Definition of procedures for collecting data from the civil registry offices responsible for recording births, marriages, divorces and deaths.	Civil Registres Office; "Agencias del Ministerio Público." <sup>14</sup> Family or Civil Courts
Museum statistics	As part of the activities of the Technical Committee on Cultural Statistics, the conceptual design, instruments and procedures for collecting, capturing and processing data on establishments and museum visitors was agreed.	Ministry of Culture

<sup>14</sup> The functions performed by agents of the *Ministerio Público* in Mexico may be considered equivalent to those carried out by the Prosecutor Offices or District Attorney

In addition, there are several activities for strengthening quality assurance of administrative records, including:

- Training in the implementation of technical standards, presentation of statistics in tables and graphs, and workshops on the standard process for the use and assessment of administrative records.
- Actions to promote the creation of statistical areas in the UE, as well as to strengthen the capacities of analysis and use of statistical information.
- Application of the Administrative Records Quality Assessment Tool (HECRA) in UE and local government agencies.
- Creation of working groups to identify administrative records with potential for statistical exploitation.

**5. The INEGI carries out activities for linking administrative records to households and establishments surveys to increase the analytical value of official statistics.**

Some examples of these are:

- Linking foreign trade data obtained from the "*pedimento aduanal*" (custom form) with data from the annual survey on manufactures has allowed the production of statistics on the characteristics of exporting and importing manufacturing businesses.
- State-level statistics on export per economic activity sub-sector was obtained from establishments data and their location.
- Survey data on victimization are linked to crimes data from the National Public Security System, as a control mechanism for unreported crimes.

### **Challenges and Improvement Actions**

Although the INEGI has the legal right to access administrative sources, and regularly produces a set of official statistics from them, it is important to broaden the use of administrative records for statistical purposes. For this reason, one of key actions in the 2016-2040 PESNIEG is to strengthen the use of administrative records in the production of official statistics. In this context, it is important to consider the following aspects:

- Consolidating the collaboration between the INEGI and the UE providers of administrative data to ensure a continuous flow of data that enables the production of timely statistics on a regular basis.
- Strategic diversification of administrative data providers
- Identifying improvement actions among UE producing administrative records at state and municipal level based on a self-assessment of their resources and capacities.

- Analyzing the feasibility of standardizing key administrative records in the states and municipalities.
- Strengthening IT infrastructure for processing of a greater volume of data.
- Analyzing the convenience revising INEGI organizational structure and the SNIEG legal framework to strengthen the use of administrative data for statistical purposes.

A proposal for a “Technical Standard for Access and Use of Administrative Records” is under revision now. This Technical Standard specifies the minimum requirements to be met by the statistical data produced through administrative records to develop a repository of administrative records. The purpose is to guarantee the integrity of the data and use it for statistics production. In addition, the proposal contemplates the requirements to meet the principle of confidentiality and ensuring the full protection of individual data.

### Supporting Evidence

Document	URL/Location
<b>Normative and methodological framework</b>	
Ley del SNIEG. Artículos: 22, 25, 28, 95 (SNIEG Law, Articles, 22, 25, 28, 95)	<a href="http://www.snieg.mx/contenidos/espanol/normatividad/marcojuridico/LSNIEG.pdf">http://www.snieg.mx/contenidos/espanol/normatividad/marcojuridico/LSNIEG.pdf</a>
Proceso estándar para el aprovechamiento de registros administrativos. (Standard process for the use of administrative records)	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825001918">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825001918</a>
Norma Técnica para la Generación de Estadística Básica. (Technical Standard for Statistical Production)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Vigente/Archivos_NV/Norma_Tecnica_para_la_Generacion_de_Estadistica_Basica.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Vigente/Archivos_NV/Norma_Tecnica_para_la_Generacion_de_Estadistica_Basica.pdf</a>
Captación en registros administrativos (Data Collection from administrative records)	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825001903">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825001903</a>
Anders y Britt Wallgreen. Estadísticas basadas en registros. Aprovechamiento estadístico de datos administrativos. (Anders and Britt Wallgreen. Statistics based on records. Statistical use of administrative data)	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825086206">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825086206</a>
Norma Técnica para la elaboración de metadatos para proyectos de generación de información estadística. (Technical Standard for metadata documentation of statistical projects.)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Vigente/Archivos_NV/ACUERDO_NT_Elaboracion_metadatos_Proyectos_Estadisticos.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Vigente/Archivos_NV/ACUERDO_NT_Elaboracion_metadatos_Proyectos_Estadisticos.pdf</a>
Lineamientos para incorporar la perspectiva de género en el Sistema Nacional de Información Estadística y Geográfica. (Guidelines to incorporate the gender perspective within the SNIEG)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Vigente/Archivos_NV/Lineamientos_perspectiva_genero.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Vigente/Archivos_NV/Lineamientos_perspectiva_genero.pdf</a>

Lineamientos para el ciclo de actualización de la información económica generada por la dirección general de estadísticas económicas del INEGI. (Guidelines for Updating Economic Statistics)	<a href="http://sc.inegi.org.mx/repositorioNormateca/Lo d_31Ago15.pdf">http://sc.inegi.org.mx/repositorioNormateca/Lo d_31Ago15.pdf</a>
<b>Quality assurance</b>	
Herramienta para la Evaluación de la Calidad de los Registros Administrativos (HECRA). (Administrative Records Quality Assessment Tool-HECRA)	The final version of the document is in the process of registration of copyright. The area that protects the document is the General Coordination of Regional Operation
<b>Sociodemographic Statistics</b>	
Estadística de defunciones fetales. Síntesis metodológica. (Fetal death statistics. Methodological synthesis)	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825070854">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825070854</a>
Síntesis metodológica de la estadística de nacimientos. (Methodological synthesis of Births statistics)	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825006614">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825006614</a>
Síntesis metodológica. Estadística de matrimonios. (Methodological synthesis of Marriage statistics)	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825001704">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825001704</a>
Síntesis metodológica. Estadística de divorcios. (Methodological synthesis of Divorce statistics)	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825001705">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825001705</a>
Derecho a la identidad. La cobertura del registro de nacimiento en México en 1999 y 2009. UNICEF-INEGI. (Right to identity. The coverage of the births registrations in Mexico in 1999 and 2009. UNICEF-INEGI).	<a href="https://www.unicef.org/mexico/spanish/mx_registrodenacimiento(3).pdf">https://www.unicef.org/mexico/spanish/mx_registrodenacimiento(3).pdf</a>
La cobertura oportuna y sub-cobertura de los nacimientos en México en Coyuntura Demográfica Núm. 10, 2016. SOMEDE. (Timely coverage and sub-coverage of births in Mexico in Demographic Conjuncture No. 10, 2016 Mexican Demography Society -SOMEDE)	<a href="http://www.somede.org/coyuntura-demografica/index.php/item/cobertura-oportuna-subcobertura-nacimientos-mexico">http://www.somede.org/coyuntura-demografica/index.php/item/cobertura-oportuna-subcobertura-nacimientos-mexico</a>
Desarrollo y actualización de los indicadores de oportunidad de registro de nacimientos para datos agrupados. Documento técnico 88. (Development and update of births registration timeliness indicators. Technical document 88.)	Attached document.
Sistema para la Evaluación de la codificación automática en la causa de defunción. Documentos Técnicos 82 y 91. (System for the assessment of automatic coding in the cause of death. Technical Documents 82 and 91.)	Attached document.
<b>Geography and environment statistics</b>	
Norma Técnica para la Generación, Captación e Integración de Datos Catastrales y Registrales con fines estadísticos y geográficos. (Technical Standard for the Production, Collection and Integration of Cadastral information for	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Norma_Tecnica_Datos_Catastrales.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Norma_Tecnica_Datos_Catastrales.pdf</a>

statistical and geographical purposes)	
Norma Técnica geográfica domicilios geográficos. (Geographical Technical Standard of geographical addresses)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Norma_Tecnica_sobre_Domicilios_Geograficos.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Norma_Tecnica_sobre_Domicilios_Geograficos.pdf</a>
Marco Geoestadístico Nacional. (National Geostatistical Framework)	<a href="http://www.inegi.org.mx/geo/contenidos/geoestadistica/default.aspx">http://www.inegi.org.mx/geo/contenidos/geoestadistica/default.aspx</a>
<b>Government, public security and justice statistics</b>	
Documento interno que establece las directrices de acompañamiento, así como las etapas por las que debe transitar el proceso de transformación de los registros administrativos. (Internal document for establishing guidelines and the stages for which the processing of administrative records must go through)	Attached document.
Recopilación de información de los Organismos Públicos de Protección y Defensa de los Derechos Humanos en México, 2016. (Compilation of information from the Public Institutions for the Protection and Defense of Human Rights in Mexico, 2016)	<a href="http://www.inegi.org.mx/est/contenidos/proyectos/registros/seg_pub/der_hum/doc/ficha_metodologica_dh_16.pdf">http://www.inegi.org.mx/est/contenidos/proyectos/registros/seg_pub/der_hum/doc/ficha_metodologica_dh_16.pdf</a>
Manual para la calificación de hechos violatorios de derechos humanos, México, Porrúa-CNDH, 2008, 449 pp. (Manual for the classification of facts violating human rights, Mexico, Porrúa-National Commission on Human Rights, 2008, 449 pp.)	Not available in electronic format. The area that keeps a copy of the document is the Division of Social Statistics and Violence Against Women
Norma Técnica para la clasificación nacional de delitos del fuero común para fines estadísticos. (Technical Standard of National Classification of Crimes for Statistical Purposes)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Norma_Tecnica_CNDFCFE.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Norma_Tecnica_CNDFCFE.pdf</a>
<b>Economic statistics</b>	
Proyectos de registros administrativos sobre Comercio Exterior. (Projects of administrative records on Foreign Trade)	Merchandise Trade Balance of Mexico <a href="http://www.beta.inegi.org.mx/proyectos/registros/economicas/comext/">http://www.beta.inegi.org.mx/proyectos/registros/economicas/comext/</a> Exports by State <a href="http://www.beta.inegi.org.mx/proyectos/registros/economicas/exporta_ef/default.html">http://www.beta.inegi.org.mx/proyectos/registros/economicas/exporta_ef/default.html</a> Profile of Export Manufacturing Enterprises <a href="http://www3.inegi.org.mx/rnm/index.php/catalog/143">http://www3.inegi.org.mx/rnm/index.php/catalog/143</a>
Norma Técnica para la incorporación y actualización de información al directorio estadístico nacional de unidades económicas. (Technical Standard for the Updating to the Business Registry)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Norma_Tecnica_sobre_Domicilios_Geograficos.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Norma_Tecnica_sobre_Domicilios_Geograficos.pdf</a>

**Recommendation 6.** Adherents ensure the impartiality, objectivity and transparency of official statistics, through the development, production and dissemination by the National Statistical Authorities of statistics respecting scientific independence put in place in an objective, professional and transparent manner in which all users are treated equitably. Equitable treatment implies in particular equal access to data by all users.

**Good practice 6.1:** Official statistics are collected, compiled and disseminated on an impartial and objective basis and determined by statistical considerations only.

**Good practice 6.2:** Equal access to official statistics for all users at the same time is guaranteed by law. If a public or private body has access to official statistics prior to their public release, this fact and subsequent arrangements are publicized and controlled. In the event that a leak occurs, pre-release arrangements are revised to as to ensure impartiality.

**Good practice 6.3 (adopted from the European Statistics Code of Practice):** Choices of data sources and statistical methods as well as decisions about the dissemination of statistics are informed by statistical considerations.

**Good practice 6.4 (adopted from the European Statistics Code of Practice):** Errors discovered in published statistics are corrected at the earliest possible date and publicized.

**Good practice 6.5 (adopted from the European Statistics Code of Practice):** Information on the methods and procedures used is publicly available.

**Good practice 6.6 (adopted from the European Statistics Code of Practice):** Statistical release and statements made in press conference are objective and non-partisan.

**Good practice 6.7:** Statistical release dates and times are announced in advance. A twelve-month-ahead advance release calendar is provided. Official statistics are released according to a standard daily time. Any divergence from the dissemination time schedule is publicized in advance, explained, and a new date is set.

**Good practice 6.8:** Any major revision or changes in methodologies are announced in advance.

**Good practice 6.9:** Internal guidelines are made available by statistical authorities to respond to erroneous interpretation and misuse of statistics. They are well-known by staff.

**Good practice 6.10:** Statistical plans and programs, methodologies, processes and procedures quality assessments are made publicly available by the statistical authorities.

**Good practice 6.11:** Guidelines exist for the presentation of data, including the treatment of time series breaks, and seasonally adjusted data, with the aim to ensure that official statistical data and metadata are presented in a way that facilitates proper interpretation and meaningful comparisons.

**Response from adherent on Recommendation 6:**

*Please enumerate the main strengths and weaknesses identified with regard to recommendation 6. Are other good practices relevant to this recommendation implemented in your country? What kind of actions do you consider important to improve the situation as regards recommendation 6 in your country?*

**Main strengths and other good practices**

The SNIEG main strengths in producing impartial, objective and transparent official statistics are discussed in this section. First, the legal framework for ensuring these principles is described. Next, regulations and mechanisms implemented for guaranteeing impartiality, objectivity, transparency and equity in data dissemination are reviewed. As a complement, Recommendation 7 analyzes practices for the selection and revision of methodologies used in the production of official statistics.

- 1. As mandated by the Mexican Constitution, the LSNIIEG incorporates explicit provisions to ensure transparency and objectivity in the production and dissemination of official statistics. Moreover, the Data Access Public Service (SPI) addresses the issue of equal access to data by all users.**

Transparency: According to the LSNIIEG, INEGI should make publicly available the following information:

- i. Statistical Programs identifying the SNIEG long-term strategic vision and the short and medium-term statistical and geographical activities (Article 9).
- ii. The SNIEG annual accountability reports sent to the Congress and the President of the Republic (Article 86).
- iii. The annual release calendar of official statistics, approved by the Governing Board (Article 87).
- iv. Methodological reports and metadata of official statistics (Articles 88, 90 and 98).

Objectivity: The LSNIIEG requires the SNIEG regulations be based on national and international standards and best practices (Article 55, section II). Moreover, the INEGI Governing Board should consider the use of sound methodologies, as part of the IIN approval process (Article 78, section IV).<sup>15</sup>

Equal access: The “Operating Rules for the Data Access Public Service” stipulates that official statistics will be released at the same time for all users (RPSPIEG, art.4 section VI).

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<sup>15</sup> For more information, see the response to Recommendation 7.

**2. At the end each year, the INEGI Governing Board approves the statistics release calendar for the following year.**

According to the LSNIEG, each December, the Governing Board should approve the statistical release dates and times for the following year (Article 77, section XI). This calendar is distributed to strategic users by email, including journalists, analysts, and decision-makers. In addition, it is published on the INEGI's website. The Board may review the calendar on a quarterly basis.

**3. The Statistics Access and Dissemination Norm defines the scope of the pre-release access to official statistics.**

According to the Statistics Access and Dissemination Norm, the President and the Heads of the Ministries of Finance, Economy, Labor, and the Central Bank have access to economic statistics, up to 12 hours in advance of the public release time (Articles 8 and 8Bis.).

**4. A public consultation of methodologies used for official statistics should take place, prior to its application (Article 88).**

New methodologies or changes in methodologies applied to IIN should follow a public consultation procedure formally established in the Guidelines for IIN Methodology Publication. Interested parties may submit their comments on the proposed methodologies through the INEGI website. A report summarizing the feedback received and the measures adopted should be sent to the Board. Original and revised methodologies are published on the INEGI website.

The participation of decision-makers and specialized users (academia) in public consultations has helped improving the projects' design; identifying or reviewing priority topics in depth, and addressing groups, sectors or domains of particular interest. For example, as a result of the consultation process for the 2014 Economic Census several environmental questions were added to the questionnaires to gather data on the establishments' water consumption and waste management.

Public consultations are also an opportunity to introduce proposed methodological adjustments to improve quality, such as changes in sample designs or data collection instruments. Finally, consultations may enhance the use of official statistics. For example, as a result of the 2020 Census consultation, energy sector officials began using census and household surveys data to analyze their policies and programs.

**5. The INEGI has guidelines and procedures for informing users about changes in published data.**

The “Guidelines for Changes in Released Data” set forth the provisions for informing users about any modification to published data (Article 4). These guidelines define five categories of published data:

- i. Preliminary data
- ii. Revised data
- iii. Final data
- iv. Adjusted data
- v. Corrected data

Data are labeled as "corrected data" when errors are discovered and corrected in published statistics. Corrected data should be published, including a footnote specifying the date and the modifications made (name of the variable or variables, columns, rows, etc.). The technical guides of the procedures for data publishing (procedures 10 and 11) specify in which step should take place the compliance verification of the regulations.

**6. The INEGI has guidelines for the presentation of data to facilitate understanding their content.<sup>16</sup>**

The document "Presentation of Statistical Data in Tables and Graphs" is a guide for elaborating tables using statistical data, and standardizing the presentation and interpretation of graphical representations of data differences between categories, geographic areas or temporary units. In addition, the "Editorial and Bibliographic Guidelines for Publications, Maps, Formats and Questionnaires" sets the criteria to standardize the edition of texts, statistical tables, graphs and images.

**7. Social communication practices at the INEGI promote objectivity, impartiality and transparency in data dissemination.**

Official statistics are disseminated through press releases and video bulletins published on YouTube. Statistical press releases always include the main indicators, and specify the methodology used in a technical annex. Economic data are seasonally adjusted, indicating the website link to the methodology used for the adjustment. For the sake of transparency, the

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<sup>16</sup> For information on the publication of metadata, see the response to Recommendation 9.

original figures are also published. For further analysis, seasonally adjusted series may be consulted and downloaded at the Economic Information Bank.

Press releases also communicate changes in methodology that may affect the consistency of historical series, or changes in classifications. These changes are notified in advance to users and are communicated through explanatory notes included in statistical products available on the INEGI website. Methodological changes are also documented as part of the metadata.

Statistical releases made in press conferences are objective and non-partisan. They present solely statistical results, according to the following practices:

- Spokespersons do not make judgments or forecasts on the results presented.
- Each press conference is recorded on video and made available to journalists and users.
- Conferences are broadcast live via Facebook Live, available to general users.
- At the end of each conference, a press release is issued.
- Press releases are sent to the media and journalists registered in the Social Communication database and published on the INEGI website.
- Data tables, microdata and any complementary information are released, at the same time as the press conference.
- Statistical results are disseminated through Twitter and Facebook. These messages include links to the INEGI website, the press release and any supporting documentation.
- Inquiries and information requests of social media users are responded and their comments monitored.

In addition, the Social Communication Directorate daily monitors electronic and printed media (radio, TV, internet, magazines and newspapers) to detect erroneous interpretations or misuse of statistics and coordinates the institutional response. Clarifications are made directly to the author (reporter, conductor or writer) of the misuse or misinterpretation.

### **Challenges and Improvement Actions**

One of the objectives of the 2016-2040 PESNIEG is consolidating a coordinated, independent, transparent and objective SNIEG. Among the actions proposed for achieving this objective is the systematic assessment of data quality. Specifically, quality indicators will be monitored through the implementation of the SNIEG Business Process Model (MPEG). This will be complemented with strategic product and processes assessments.

Another relevant action to strengthen compliance with Recommendation 6 is innovating in sources, methodologies and technologies for statistics production based on protocols that allow

the homogenous documentation and dissemination of the changes made, as well as their impact.

Finally, the following challenges are identified related to Recommendation 6:

- Strengthening UE participation in public consultations of guidelines, technical standards, and methodologies.
- Defining internal guidelines to responding to erroneous interpretation and misuse of statistics. Although this is already a regular practice, it would be important to formalize it as internal guidelines and disseminating them among the INEGI' staff.
- Reviewing the guidance for data presentation to include the treatment of time series breaks, and seasonally adjusted data.
- Implementing mechanisms to promote and verify UE compliance with regulations.
- Completing and updating the methodological documentation of all projects.
- Improving timeliness in the revision and approval of methodological or procedural changes.

### Supporting Evidence

Document	URL/Location
Ley del SNIEG Artículos: 33, fracción. VI; 87, 98, 99, 100, 101, 102, (SNIEG Law, Articles 33, section. VI; 87, 98, 99, 100, 101, 102)	<a href="http://www.snieg.mx/contenidos/espanol/normatividad/marcojuridico/LSNIEG.pdf">http://www.snieg.mx/contenidos/espanol/normatividad/marcojuridico/LSNIEG.pdf</a>
Código de Ética del SNIEG (SNIEG Code of Ethics)	<a href="http://www.snieg.mx/contenidos/espanol/normatividad/marcojuridico/Codigo Etica del SNIEG.pdf">http://www.snieg.mx/contenidos/espanol/normatividad/marcojuridico/Codigo Etica del SNIEG.pdf</a>
Principios y Buenas Prácticas para las Actividades Estadísticas y Geográficas del SNIEG (SNIEG Code of Practice)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad Vigente/Archivos NV/Principios Buenas Practicas Es Geo SNIEG.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad Vigente/Archivos NV/Principios Buenas Practicas Es Geo SNIEG.pdf</a>
Norma para la difusión y promoción del acceso conocimiento y uso de la información estadística y geográfica que genera el INEGI. Artículos 3 fracción I, 4, 8 y 8 Bis. (Statistics Access and Dissemination Norm, Articles 3, section I, 4, 8 and 8 Bis)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad Vigente/Archivos NV/ACUERDO de Reglas para la PSPIEG.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad Vigente/Archivos NV/ACUERDO de Reglas para la PSPIEG.pdf</a>
Lineamientos para el desarrollo y publicación de productos del INEGI. Artículos 89 y 90 (Guidelines for Developing and Publishing INEGI Products, Articles 89 and 90)	<a href="http://sc.inegi.org.mx/repositorioNormateca/Loda_23Sep14.pdf">http://sc.inegi.org.mx/repositorioNormateca/Loda_23Sep14.pdf</a>
Reglas para la Prestación del Servicio Público de Información Estadística y Geográfica Artículo 4 fracción VI (Operating Rules for the Data Access Public Service,	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad Vigente/Archivos NV/ACUERDO de Reglas para la PSPIEG.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad Vigente/Archivos NV/ACUERDO de Reglas para la PSPIEG.pdf</a>

Document	URL/Location
Article 4 section VI)	
Presentación de datos estadísticos en cuadros y gráficas (Presentation of Statistical Data in Tables and Graphs)	<a href="http://internet.contenidos.inegi.org.mx/contenidos/productos/prod_serv/contenidos/espanol/bvinegi/productos/metodologias/est/cuadros_graficas.pdf">http://internet.contenidos.inegi.org.mx/contenidos/productos/prod_serv/contenidos/espanol/bvinegi/productos/metodologias/est/cuadros_graficas.pdf</a> ,
Portal del SNIEG, Sección Foro (SNIEG website, Forum Section)	<a href="http://www.snieg.mx/contenidos/blog_foro_V2/privacidad.aspx">http://www.snieg.mx/contenidos/blog_foro_V2/privacidad.aspx</a>
Lineamientos generales para la publicación de Metodologías que el INEGI utiliza en la producción de Información de Interés Nacional. Lineamientos 7 y 11 (Guidelines for IIN Methodology Publication, No. 7 and 11)	<a href="http://sc.inegi.org.mx/repositorioNormateca/DA18Oct10.pdf">http://sc.inegi.org.mx/repositorioNormateca/DA18Oct10.pdf</a>
Lineamientos de Cambios a la Información Divulgada en las Publicaciones Estadísticas y Geográficas del Instituto Nacional de Estadística y Geografía (Guidelines for Changes in Released Data)	<a href="http://sc.inegi.org.mx/repositorioNormateca/OL06Jun13.pdf">http://sc.inegi.org.mx/repositorioNormateca/OL06Jun13.pdf</a>
Manual de Procedimientos de la Dirección General Adjunta de Comunicación. Procedimientos 10 y 11 (Communications Deputy General Directorate Operating Procedures Manual, Procedures 10 and 11)	<a href="http://sc.inegi.org.mx/repositorioNormateca/MP2_Ene17.pdf">http://sc.inegi.org.mx/repositorioNormateca/MP2_Ene17.pdf</a>
Manual de directrices editoriales y bibliográficas para la generación de publicaciones, mapas, formatos y cuestionarios en el Instituto Nacional de Estadística y Geografía (Editorial and Bibliographic Guidelines for Publications, Maps, Formats and Questionnaires)	<a href="http://sc.inegi.org.mx/repositorioNormateca/Mod_05May15.pdf">http://sc.inegi.org.mx/repositorioNormateca/Mod_05May15.pdf</a>
Metodología del ajuste estacional (Seasonal Adjustment Methodology)	<a href="http://internet.contenidos.inegi.org.mx/contenidos/Productos/prod_serv/contenidos/espanol/bvinegi/productos/metodologias/ajus_estacional/Methodajustestacional.pdf">http://internet.contenidos.inegi.org.mx/contenidos/Productos/prod_serv/contenidos/espanol/bvinegi/productos/metodologias/ajus_estacional/Methodajustestacional.pdf</a>

**Recommendation 7.** Adherents employ sound methodology and commit to professional standards used in the production of official statistics. To this end, Adherents should:

- i) apply appropriate statistical procedures and methods, including a stated revisions policy;
- ii) strive to adhere to international norms and standards, such as methodological manuals developed by the United Nations Statistical Commission or by the OECD, and international classifications in the statistics collected by the OECD.

**Good practice 7.1:** Official statistics are produced according to strictly professional considerations, including scientific principles and professional ethics with regard to methods and procedures used for the collection, processing, storage and dissemination of statistical data.

**Good practice 7.2 (adopted from the European Statistics Code of Practice):** Sound statistical methodology requiring adequate tools and procedures and expertise is implemented and guaranteed by the national statistics law.

**Good practice 7.3:** International statistical standards, guidelines and good practices are applied in the National Statistical System as appropriate.

**Good practice 7.4:** National statistical classifications developed by statistical authorities are consistent with international classifications. Detailed concordance exists between national classifications and the corresponding international classification.

**Good practice 7.5 (adopted from the European Statistics Code of Practice):** Procedures are in place to ensure that standard concepts, definitions and classifications are consistently applied throughout the National Statistical Authorities

**Good practice 7.6:** Subject matter advisory committees made up of external experts advise on relevant statistical matters.

**Good practice 7.7 (adopted from the European Statistics Code of Practice):** Graduates in the relevant academic disciplines are recruited.

**Good practice 7.8:** Co-operation with the scientific community, academic institutions and international organizations to improve methodology and the effectiveness of the methods implemented, and to improve methodological and technical skills of staff.

**Good practice 7.9:** Strategies for recruitment, as well as processes for technical and managerial development and training of existing staff, are established, implemented, and revised as required.

**Good practice 7.10:** In the case of statistical surveys, questionnaires and systems for production are systematically tested prior to the data collection.

**Good practice 7.11:** Parallel runs are undertaken when systems or questionnaires are redesigned in any significant way.

**Good practice 7.12 (adopted from the European Statistics Code of Practice):** Survey designs, sample selections and estimation methods are well based on regularly reviewed and revised as required.

**Good practice 7.13 (adopted from the European Statistics Code of Practice):** The business register and the frame for population surveys are regularly evaluated and adjusted if necessary in order to ensure high quality.

**Good practice 7.14 (adopted from the European Statistics Code of Practice):** Data collection, data entry, and coding are routinely monitored and revised as required.

**Good practice 7.15 (adopted from the European Statistics Code of Practice):** Appropriate editing and imputation methods are used and regularly reviewed, revised or updated as required.

**Good practice 7.16 (adopted from the European Statistics Code of Practice):** Revisions follow standard, well-established and transparent procedures.

**Good practice 7.17:** A revision schedule is published by the producers of official statistics.

**Good practice 7.18:** The design of statistical questionnaires used in survey-based data collection processes is regularly reviewed.

### Response from adherent on Recommendation 7:

*Please enumerate the main strengths and weaknesses identified with regard to recommendation 7. Are other good practices relevant to this recommendation implemented in your country? What kind of actions do you consider important to improve the situation as regards recommendation 7 in your country?*

### Main strengths and other good practices

The main strengths of the SNIEG in ensuring the use of sound methodologies and technical standards are presented below. In the first place, reference is made to the LSNIEG, which establishes the legal mandate to produce data based on sound methodologies and international standards, as well as the mechanisms to meet this objective. Then, a description of the procedures and activities to ensure its application is presented, providing some examples. Finally, the selection and training of the human resources is addressed.

#### **1. LSNIEG guarantees data production based on sound methodologies, considering national and international standards, as well as best practices.**

As mentioned in Recommendation 1, one of the legal criteria for IIN approval is the application of sound methodologies (Article 78). In addition, the LSNIEG establishes that the SNIEG regulation should consider national and international standards, as well as best practices (Article 55, section II).

In operational terms, the UE may propose to the Executive Committees (CE) technical standards and/or methodologies, following national and international standards and best practices (Article 33, fraction IV, and Article 30, fraction VI). In turn, once approved by the CE, these methodologies are proposed to the INEGI for approval and implementation.

To receive comments and observations from different stakeholders, the LSNIEG obliges INEGI to submit for public consultation, the methodologies that will be used to carry out statistical and geographical activities (see Table 7.1). Subsequently, INEGI should publish and preserve the metadata on the specifications of the methodologies used for IIN production (Article 88). Finally, the LSNIEG contemplates the participation of international organizations in the revision of the methodologies used to produce the IIN (Article 30, fracción VI and 89).

#### **Table 7.1. Examples of regulations and methodologies submitted for public consultation 2012-2016<sup>17</sup>**

<sup>17</sup> The complete list of regulations and methodologies that have been submitted for public consultation is included as part of the supporting evidence.

Regulation / methodology	Year of consultation
<b>Methodologies</b>	
Labor Productivity Index	2012
Topographic Data Reviewing Process	2017
Base Year Change to 2013 in National Economic Surveys	2017
<b>Technical Standards</b>	
Open-Data Access and Dissemination	2014
Business Registry Updating	2014
National Classification of Crimes for Statistical Purposes	2017
<b>Rules</b>	
Rules for IIN Determination	2015
<b>Guidelines</b>	
Guidelines for the Use of the Vegetation Types Classification for Statistical and Geographical Purposes	2016
<b>Classifications</b>	
Occupations Classification (SINCO)	2012
<b>Other provisions</b>	
SNIEG Code of Practice	2014

## 2. The SNIEG Code of Practice also points to the use of sound methodologies.

According to the SNIEG CoP, statistical production should consider the following practices:

- Using a methodological framework, including national and international standards, classifications and good practices.
- Methodologies are periodically assessed and revised to meet quality criteria and international standards.
- Technical staff are periodically trained so that they can apply sound methodologies.
- Academics expertise and international experience are harnessed to implement, improve, and assess methodologies.

- 3. Data production from censuses, sampling surveys and administrative records is based on the Technical Standard for Statistical Production (NTGEB). This Standard defines the procedures and activities required for the application of sound methodologies and national and international standards.**

According to the NTGEB, the SNIEG statistical projects should meet the following conditions:

- I. The methodological framework should include the SNIEG comparability requirements, international recommendations, and the use of national and international standards on concepts and classifications.
- II. Probabilistic sampling should be applied, preferably. Sampling design should ensure reliable estimates of the variables of interest. The sampling framework is complete and updated periodically. The confidence level, sampling error and expected non-response rate used to calculate sample size should be specified.
- III. Field testing should be conducted to verify data collection instruments feasibility and functionality.
- IV. Data collection should include procedures and mechanisms for quality control. Moreover, the functionality of the operational and procedures manuals should be field-tested.
- V. Data collection should be monitored to solve any contingencies that may arise; implement corrective actions; and ensure operational targets are met.
- VI. Processing and analysis design should include manual and automatized processes required for capturing, coding, consistency analysis and validation, based on previously defined criteria.

Some examples of NTGB application in statistical projects are:

#### *Pilot survey*

- In the case of the Economic Censuses, a field test is implemented 9 months before the collection phase takes place. Collection instruments and interviewing techniques are tested and adjusted, as necessary.
- For the 2015 Inter-Census Survey, four subject-specific tests and a pilot of the statistical business process were carried out.

*Data Collection Monitoring, Data Entry and Coding*

- Business surveys rely on the *Administrador Universal* System to standardize data collection and monitoring processes. This system is used to update the Business Registry, for data capturing, field validation, and progress reports generation. It also monitors data collection and generates a set of quality indicators.
- The Foreign Trade Statistics System (SICE) allows the validation, processing and exploitation of the database, which contains the data of Mexico's Merchandise Trade Balance.
- Household surveys use the *IKTAN* System to monitor data collection and data processing.
- Government censuses use the *EDCrivaX* System (Development Environment for Exhaustive Validation Criteria) to generate validated databases of each project.

**4. The INEGI uses standard concepts, classifications, and definitions to produce internationally comparable statistics, and facilitate data exchange with international organizations.**

The IIN methodological frameworks are based on recommendations issued by the international statistical community. Table 7.2 includes some examples of international standards, guidelines and good practices used in the IIN production.

**Table 7.2. Examples of international standards, guidelines or good practices used in IIN production**

Project	International standard / guidelines / good practices applied	Supporting Evidence
Economic Censuses	<ul style="list-style-type: none"> <li>● International Recommendations for Industrial Statistics. United Nations, 2008.</li> <li>● Industrial Statistics Guidelines and Methodology. United Nations, 2009.</li> <li>● Manual on Business Demography Statistics, EUROSTAT – OECD; 2007.</li> <li>● International Recommendations for Tourism Statistics.</li> </ul>	Methodology of 2014 Economic Census
Agriculture Census	<ul style="list-style-type: none"> <li>● World Programme for the Census of Agriculture 2020, FAO, 2015.</li> </ul>	Census of Agriculture, Livestock and Forestry Methodological Document
Monthly Survey on Commercial Establishments	<ul style="list-style-type: none"> <li>● International Recommendations for Distributive Trade and Services Statistics; United Nations, 2008.</li> </ul>	Monthly Survey on Commercial Establishments Methodological Document

National Accounts	<ul style="list-style-type: none"> <li>• National Accounts, United Nations, 2008</li> <li>• Quarterly National Accounts Manual: Concepts, Data Sources and Compilation. IMF.</li> <li>• European System of National Accounts; Eurostat, 2013.</li> <li>• Recommendation #15 of the G-20 Sectoral Accounts.</li> </ul>	<p>National Accounts, Sources and Methodologies.</p> <p>Methodology of the Satellite Accounts.</p>
Consumer and Producer Prices Indexes	<ul style="list-style-type: none"> <li>• Consumer Price Index. Manual of International Labour Organization.</li> <li>• Producer Price Index, Manual of International Labour Organization.</li> </ul>	<p>Methodological document of the National Consumer Price Index.</p> <p>Methodological document of the National Producer Price Index.</p>
National Survey on Construction Enterprises	<ul style="list-style-type: none"> <li>• International Recommendations for Construction Statistics, UN 2008.</li> </ul>	Methodological synthesis of the Annual Survey on Construction Enterprises
Monthly Survey on Manufactures	<ul style="list-style-type: none"> <li>• International Recommendations for industrial Statistics. United Nations, 2008.</li> <li>• International Recommendations for the Index of Industrial Production, United Nations, 2010</li> </ul>	Methodological synthesis of the Monthly Survey on Manufactures.
Merchandise Trade Balance	<ul style="list-style-type: none"> <li>• Manual on Balance of Payments and International Investment Position, Revisions 5 and 6, FMI.</li> <li>• International Merchandise Trade Statistics: Concepts and Definitions, UNSD 2010.</li> <li>• International Merchandise Trade Statistics: Compilers Manual, Revision 1.</li> </ul>	Methodological synthesis of the Mexico's Merchandise Trade Balance.
Census of Population and Housing (CPV)	<ul style="list-style-type: none"> <li>• Principles and Recommendations for the Census of Population and Housing, Revision 2, UN 2010.</li> </ul>	Methodological and conceptual synthesis of the 2010 Census of Population and Housing.
Labor Force Survey (ENOE)	<ul style="list-style-type: none"> <li>• Definitions of the 13th Conference of Labour Statisticians (ILO Standards and Guidelines on Labour Statistics.)</li> <li>• Reports of the XIII, XIV, XV and XVI International Conference of Labour Statisticians-ICLS.</li> <li>• Resolution of the Paris Group Concerning the Measurement of Working Time</li> <li>• Reports of the Delhi Group on Informal Sector Statistics.</li> <li>• Statistical Manual on the Informal Sector and Informal Employment, ILO 2013.</li> </ul>	<p>ENOE. Methods and procedures.</p> <p>ENOE. Conceptual and methodological framework</p>

Household Income and Expenditure Survey (ENIGH)	<ul style="list-style-type: none"> <li>Resolutions and reports of the International Conferences on Labor Statistics, of the International Labor Organization.</li> <li>Final Report and Recommendations of the Canberra Group on Household Income Statistics.</li> <li>Manual of Household Surveys. Department of International Economic and Social Affairs, Statistics Office of the United Nations, New York, 1987.</li> </ul>	ENIGH 2014. Topics, Categories and Variables.
Births Statistics	<ul style="list-style-type: none"> <li>Principles and Recommendations of the United Nations (UN) for a Vital Statistics System.</li> <li>International Programme for Accelerating the Improvement of Vital Statistics and Civil Registration Systems.</li> <li>Handbook on Civil Registration and Vital Statistics Systems, UN.</li> </ul>	Methodological synthesis of the Vital Statistics. Methodological framework for Vital Statistics. Methodological synthesis of births statistics.
Death statistics	<ul style="list-style-type: none"> <li>Principles and Recommendations of the United Nations (UN) for a Vital Statistics System.</li> <li>International Programme for Accelerating the Improvement of Vital Statistics and Civil Registration Systems.</li> <li>Handbook on Civil Registration and Vital Statistics Systems, UN.</li> </ul>	Methodological synthesis of the Vital Statistics.  Death statistics. Methodological framework.  Methodological Synthesis of the Death Statistics.
Violence Against Women Survey (ENDIREH)	<ul style="list-style-type: none"> <li>Guidelines for Producing Statistics on Violence against Women, UNSD 2014.</li> </ul>	Methodological synthesis of the ENDIREH 2011.
Survey on Victimization and Perception of Public Security (ENVIPE)	<ul style="list-style-type: none"> <li>Manual for victimization Surveys, United Nations 2010.</li> </ul>	ENVIPE 2016. Conceptual framework.

**5. Consistent application of standardized classifications, concepts and definitions in the SNIEG is promoted through technical standards approved by the INEGI Governing Board, and participation in inter-institutional working groups.**

The INEGI coordinates the use of common classifications across UE. For example, the use of the North American Industry Classification System (NAICS) provides a single, consistent and updated framework for the collection, analysis and presentation of regional economic statistics for the SNIEG. Moreover, this classification is consistent with the International Standard Industrial Classification (ISIC), thus allowing international comparability of the data.

In addition to the NAICS, the Governing Board approved the technical standards on concepts, definitions and classifications detailed in Table 7.3.

**Table 7.3. SNIEG Technical Standards (valid as of 2017)**

Technical standards	International Reference
<a href="#">Agreement for the use of the correlation table between the rates from the Law of General Taxes of Import and Export (TIGIE) and the North American Industry Classification System (NAICS) for the production of statistics on foreign trade of merchandise.</a>	International Standard Industrial Classification (ISIC).  Harmonized Commodity Description and Coding system -HS- issued by the World Customs Organization.
<a href="#">Agreement for the use of the Study Programs Mexican Classification</a>	Not applicable
<a href="#">Agreement for the Use of the Occupations Classification (SINCO)</a>	International Standard Classification of Occupations -ISCO.
<a href="#">Technical Standard of the National Classification of Crimes for Statistical Purposes</a>	International classification of Crime, - UNODC.
<a href="#">Agreement for the Use of the North American Industry Classification System (NAICS)</a>	International Standard Industrial Classification of all economic activities (ISIC).
<a href="#">Guidelines for the Use of the Catalog of Types of Vegetation for statistical and geographical purposes</a>	Not applicable
<a href="#">Technical Standard for the Registration of Geographical Names for Statistical and Geographical Purposes</a>	Recommendations of the United Nations Conference on the Standardization of the Geographical Names.
<a href="#">Agreement for the Use of Generic Terms of on Ocean Floor Relief</a>	Standardization of the form of the Sea relief. UNESCO-Intergovernmental Oceanographic Commission
<a href="#">Technical Standard for the Production, Collection and Integration of Cadastral Data for Statistical and Geographical Purposes</a>	Not applicable
<a href="#">Technical Standard on Geographical Addresses</a>	Not applicable

The INEGI also has a list of classifications used for statistics production, including the functional classifications used by the System of National Accounts (SCNM), such as the Classification of the Functions of Government (CFG), the Classification of Individual Consumption According to Purpose (COICOP), and the Classification of the Purposes of Non-Profit Institutions Serving Households (COPNI).

Furthermore, INEGI's personnel is permanently involved in inter-institutional working groups in charge of developing and updating standard classifications, such as the Mexican Classification on

Time Use (CMAUT); the “Mexican List of Diseases”; the Classification on Violence against Women, and the International Classification of Crimes for Statistical Purposes (ICCS).

Finally, in 2017 the North American Product Classification System (NAPCS) was presented as a reference classification that allows the comparison of products among the countries of the region.

**6. INEGI undertakes parallel data collection exercises when questionnaires are redesigned or changes in methodologies are performed.**

Below are some examples of parallel data collection runs:

- In the last quarter of 2004, the previous labor force scheme (National Employment Survey) and the new scheme of the Labor Force Survey (ENOE) were operated in parallel.
- In 2008, when the Socioeconomic Conditions Module (MCS) was incorporated into the Household Income and Expenditure Survey (ENIGH) to collect data for poverty measurement, there was a parallel operation using the previous questionnaires of the ENIGH.
- In 2011, a test was applied to measure the differences between the methodologies of the Survey on Victimization and Perception of Public Security (ENVIPE) and the Survey on Insecurity (ENSI).

**7. INEGI uses consolidated computer systems and guidelines for data editing**

- The Integrated System of Establishments Surveys (SIEUE) uses standardized criteria for data processing business surveys. These include specifications of routines for editing and imputing.
- The 2010 Census and the 2015 Inter-Census Survey have guidelines and methods for data editing and imputation. The use of these methods is monitored, assessed and documented.
- Some household surveys include instructions for data imputations as part of the validation criteria. However, there is no analysis of the impact of the imputations made.

**8. The INEGI reviews regularly census and survey questionnaires.**

Some examples of these reviews include the following:

Socio-demographic statistics

- The INEGI has been working with the ILO to incorporate the new recommendations for labor force surveys and review the ENOE questionnaires.

- The population census questionnaires are reviewed at least once every five years. These revisions consider the lessons from previous censuses; international recommendations for the census round in turn; and public consultations results.
- A major review of the ENIGH questionnaires is scheduled for 2020.

#### Economic statistics

- The Guidelines for Updating Economic Statistics define the criteria for revising the conceptual design of the establishments surveys. Hence, the Integrated System of Establishments Surveys (SIEUE) revise surveys questionnaires at least once every five years.
- The methodologies of the Housing and the Tourism Satellite Accounts are updated every five years, including revisions in concepts, classifications, international recommendations and incorporation of new data sources.

#### Government statistics

- Government Censuses questionnaires are reviewed annually, except the Census of Municipal Governments that is reviewed every two years.
- Surveys are reviewed before each round, considering the feasibility of each question. According to the periodicity of the surveys, questionnaires are reviewed annually for ENVIPE and every two years for ENVE and ENCIG.

### **9. The SNIEG data infrastructure guarantees the standardized production of statistics and it is regularly updated.**

LSNIEG establishes that the Demographic and Social Information Subsystem (SNID) and Economic Information Subsystem (SNIE) will have a data infrastructure containing at least a geostatistical framework, a Housing Inventory and a Business Registry. The data infrastructure will be updated permanently. The INEGI is responsible for its operation and regulation.

The geostatistical framework (MGN) is a system designed by INEGI to geo-reference the statistics from censuses and surveys with the corresponding geographical location. The MGN divides the national territory into areas with identifiable limits, called geostatistical areas, with three levels of breakdown: State (AGEE), Municipal (AGEM) and Basic (AGEB), these may be urban or rural.

The Housing Framework (MNV) was built using the 2000 Population Census data. Since then, it is updated permanently through field operations. The MNV identifies well-defined areas with statistical data on the population and dwellings surveyed by the INEGI.

In July 2010, INEGI created a Directory of Economic Units (DENUE) based on the 2009 Economic Census. Since then, the Directory has been updated using survey data and administrative records. DENUE has been used as a sampling framework for establishments surveys, and as an input, for the 2014 Economic Census.

In 2015, INEGI extended the scope of DENUE with the purpose of creating the Statistical Business Registry with the following characteristics: i) to be a single repository of business and establishments data; and ii) to be the basis of all INEGI economic statistics production processes.

**10. INEGI's personnel are well-qualified for the application of appropriate statistical methods and procedures.**

As mentioned in the response to Recommendation 3, the INEGI Civil Service (SPC) ensures the recruitment of graduates in academic fields relevant for statistical production and dissemination. In addition, the INEGI has established alliances with academic institutions to strengthen the technical capacities and skills of its personnel.<sup>18</sup> Since 2004, the following graduate programs have been offered, benefiting 150 staff members:

- Official Statistics
- Computer Science and Computational Technologies
- Geospatial Data Management
- Earth Sciences
- Statistical Analysis

**Challenges and Improvement Actions**

The fourth objective of the 2016-2040 PESNIEG refers to the production of accurate, reliable, consistent and comparable data. Among the key actions proposed to achieve this objective are: i) ensuring that the information infrastructure defined by the LSNIIEG is used as a common basis for the statistical production; and ii) developing methodologies for linking different statistical and geographical projects. One of the challenges that must be considered in achieving this objective is the need to strengthen UE observance of the SNIIEG technical standards.

Furthermore, parallel operations or control exercises for testing new systems or questionnaires demand additional financial and human resources. These extra funding should be considered in the implementation of the improvement protocols devised in the PESNIEG.

Finally, it is necessary to strengthen INEGI's personnel training activities. Specifically, training activities should include a better tailored supply of courses within the SPC and formalize the mechanisms for external training, either inside or outside the country.

In the short term, INEGI will set up a Methodologies Committee aimed at compiling, organizing and reviewing the methodologies and technical standards used in the SNIIEG statistical production.

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<sup>18</sup> For more information about collaboration with the international community and with academic institutions, see the response to Recommendations 11 and 12 respectively.

## Supporting Evidence

Document	URL/Location
<b>Regulatory Framework</b>	
Ley del SNIEG Artículos: 30, 33, 57 al 78, 88 y 89 (SNIEG Law, Articles, 30, 33, 57 al 78, 88 y 89)	<a href="http://www.snieg.mx/contenidos/espanol/normatividad/marcojuridico/LSNIEG.pdf">http://www.snieg.mx/contenidos/espanol/normatividad/marcojuridico/LSNIEG.pdf</a>
Lineamientos generales para la publicación de Metodologías que el INEGI utiliza en la producción de Información de Interés Nacional (Guidelines for publish Methodologies used for production of IIN)	<a href="http://sc.inegi.org.mx/repositorioNormateca/DAI_18Oct10.pdf">http://sc.inegi.org.mx/repositorioNormateca/DAI_18Oct10.pdf</a>
Proceso estándar para encuestas por muestreo (Standard process for sample surveys)	<a href="http://www.inegi.org.mx/est/contenidos/proyectos/aspectosmetodologicos/documentostecnicos/proc_est.aspx">http://www.inegi.org.mx/est/contenidos/proyectos/aspectosmetodologicos/documentostecnicos/proc_est.aspx</a>
Captación en registros administrativos (Collection in administrative records)	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825001903">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825001903</a>
<b>Sociodemographic Statistics</b>	
Documento Metodológico del Marco Nacional de Viviendas 2012 (Methodological Document of the National Housing Framework 2012)	<a href="http://www3.inegi.org.mx/rnm/index.php/catalog/12/download/1222">http://www3.inegi.org.mx/rnm/index.php/catalog/12/download/1222</a>
Síntesis metodológica del Inventario Nacional de Viviendas (Methodological synthesis of the Housing Inventory)	<a href="http://beta.inegi.org.mx/app/mapa/INV/Documentos/Sintesis%20Metodologica%20INV2016.pdf">http://beta.inegi.org.mx/app/mapa/INV/Documentos/Sintesis Metodologica INV2016.pdf</a>
Síntesis metodológica y conceptual del Censo de Población y Vivienda 2010. (Methodological and conceptual synthesis of the 2010 Census of Population and Housing.)	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825002065">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825002065</a>
ENOE. Cómo se hace la ENOE. Métodos y procedimientos (ENOE. Methods and procedures)	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825006541">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825006541</a>
La informalidad laboral. Marco conceptual y metodológico. (Labor informality. Conceptual and methodological framework)	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825060459">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825060459</a>
Encuesta Nacional de Ingresos y Gastos de los Hogares. ENIGH 2014. Temas categorías y variables (ENIGH 2014. Topics, Categories and Variables.)	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825070342">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825070342</a>
Síntesis metodológica de las estadísticas vitales. (Methodological synthesis of the Vital Statistics)	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825000251">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825000251</a>
Marco metodológico para la generación de las estadísticas vitales. Nacimientos. (Methodological framework for Vital Statistics. Births)	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825000915">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825000915</a>
Síntesis metodológica de la estadística de	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825000915">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825000915</a>

nacimientos (Methodological synthesis of births statistics)	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825006614">ha.html?upc=702825006614</a>
Estadística de defunciones generales. Marco metodológico. (Death statistics. Methodological framework.)	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825086114">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825086114</a>
Estadística de defunciones generales. Síntesis metodológica. (Methodological Synthesis of the Death Statistics)	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825070854">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825070854</a>
<b>Government, Public Security and Justice Statistics</b>	
Encuesta Nacional sobre la Dinámica de las Relaciones en los Hogares 2011 ENDIREH. Síntesis metodológica (Methodological synthesis of the ENDIREH 2011)	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825003802">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825003802</a>
Encuesta Nacional de Victimización y Percepción sobre Seguridad Pública 2016. ENVIPE. Marco conceptual (ENVIPE 2016. Conceptual framework)	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825087852">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825087852</a>
<b>Economic Statistics</b>	
Censos Económicos 2014. Metodología (Methodology of 2014 Economic Censuses)	<a href="http://www3.inegi.org.mx/sistemas/biblioteca/ficha.aspx?upc=702825075330">http://www3.inegi.org.mx/sistemas/biblioteca/ficha.aspx?upc=702825075330</a>
VIII Censo Agrícola, Ganadero y Forestal 2007. Síntesis metodológica (Methodological Synthesis of the Census of Agriculture, Livestock and Forestry)	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825050009">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825050009</a>
Encuesta Mensual sobre Empresas Comerciales. Síntesis metodológica (Methodological synthesis of the Monthly Survey on Commercial Establishments)	<a href="http://www3.inegi.org.mx/sistemas/biblioteca/ficha.aspx?upc=702825000151">http://www3.inegi.org.mx/sistemas/biblioteca/ficha.aspx?upc=702825000151</a>
Encuesta Mensual de Servicios. Síntesis metodológica (Methodological synthesis of the Monthly Survey on Services Establishments)	<a href="http://www3.inegi.org.mx/sistemas/biblioteca/ficha.aspx?upc=702825070700">http://www3.inegi.org.mx/sistemas/biblioteca/ficha.aspx?upc=702825070700</a>
Sistema de Cuentas Nacionales de México. Fuentes y Metodologías. (National Accounts. Sources and Methodologies.)	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825003419">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825003419</a> Methodologies > National Accounts <a href="http://www.inegi.org.mx/est/contenidos/proyectos/cn/">http://www.inegi.org.mx/est/contenidos/proyectos/cn/</a>
Documento metodológico del Índice Nacional de Precios al Consumidor. (Methodological document of the National Consumer Price Index).	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825003416">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825003416</a>
Índice nacional de precios productor. Documento Metodológico. (Methodological document of the National Producer Price Index.)	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825063696">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825063696</a>
Encuesta Anual de Empresas Constructoras 2013. EAEC. Síntesis metodológica. (Methodological synthesis of the Annual Survey on	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825051280">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825051280</a>

Construction Enterprises.)	
Síntesis metodológica de la Encuesta Mensual de la Industria Manufacturera. (Methodological synthesis of the Monthly Survey on Manufactures.)	<a href="http://www3.inegi.org.mx/sistemas/biblioteca/ficha.aspx?upc=702825075507">http://www3.inegi.org.mx/sistemas/biblioteca/ficha.aspx?upc=702825075507</a>
Balanza comercial de mercancías de México. Síntesis metodológica (Methodological synthesis of the Mexico's Merchandise Trade Balance)	<a href="http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825091064">http://www.beta.inegi.org.mx/app/biblioteca/ficha.html?upc=702825091064</a>
Documento metodológico del DENU (Methodological document of Business Registry)	<a href="http://internet.contenidos.inegi.org.mx/contenidos/Productos/prod_serv/contenidos/espanol/bviniegi/productos/nueva_estruc/702825093358.pdf">http://internet.contenidos.inegi.org.mx/contenidos/Productos/prod_serv/contenidos/espanol/bviniegi/productos/nueva_estruc/702825093358.pdf</a>
Lineamientos para el Ciclo de Actualización de la Información Económica Generada por el INEGI (Guidelines for Updating Economic Statistics)	<a href="http://sc.inegi.org.mx/repositorioNormateca/Lod_31Ago15.pdf">http://sc.inegi.org.mx/repositorioNormateca/Lod_31Ago15.pdf</a>
Sistema Integrado de Encuestas en Unidades Económicas. Compendio de Recomendaciones para el Diseño Conceptual (Integrated System of Establishments Surveys-SIEUE. Recommendations for the Conceptual Design)	Attached document.
Sistema Integrado de Encuestas en Unidades Económicas. Compendio de Recomendaciones para el Tratamiento y Procesamiento de la Información (Integrated System of Establishments Surveys-SIEUE. Recommendations for the Data Processing)	Attached document.
Sistema Integrado de Encuestas en Unidades Económicas. Compendio de Recomendaciones para realizar Operaciones de Campo. (Integrated System of Establishments Surveys-SIEUE. Recommendations to conduct Field Operations.)	Attached document.
Manual del Administrador Universal (Manual of the Universal Administrator System)	Attached document.
<b>Integration of Statistics</b>	
Catálogos y Notas Metodológicas para los Anuarios estadísticos y geográficos de los estados disponibles en el Sitio de colaboración e intercambio para proyectos descentralizados de integración (Catalogs and Methodological Notes for the state statistical and geographical Yearbooks)	Attached document.

**Recommendation 8.** Adherents commit to quality of statistical products and processes, in particular to key quality dimensions as defined in national and international quality assessment frameworks, for instance in the *Quality Framework and Guidelines for OECD Statistical Activities*: timeliness and punctuality (statistics are released in a timely and punctual manner); relevance (statistics meet the needs of users); accuracy (statistics accurately and reliably portray reality); credibility (confidence is placed by users in statistics products); coherence and comparability (statistics are consistent internally, over time and in space and it is possible to combine and make joint use of related data from different sources); and interpretability and accessibility (see Recommendation 9).

Quality management, monitoring, assessment plans and reports

**Good practice 8.1:** A quality policy ensures that the producers of official statistics systematically assess the quality of official statistics. Quality policy is publicly available through guidelines, frameworks, reports, etc. and staff members receive appropriate training for their application.

**Good practice 8.2:** An efficient, and possibly independent, quality management system exists. It includes an appropriate organizational structure; quality indicators and other tools and processes for the planning, implementation, and monitoring of the quality of source data; and the collection, processing, and dissemination of official statistics.

**Good practice 8.3:** The national quality management systems are based on recognized models for quality frameworks, such as the IMF Data Quality Assessment Framework (DQAF), the European Foundation for Quality Management, European Code of Practice, the European Statistical System Quality Assurance Framework, Total Quality Management and ISO EN 9001, etc.

**Good practice 8.4 (adopted from the European Statistics Code of Practice):** There are regular and thorough reviews of key statistical outputs involving external experts where appropriate (ECOP).

**Good practice 8.5:** Quality assessment and certification processes guarantee the official nature of statistics produced in various parts of the NSS.

**Good practice 8.6:** The organizational structure of the entities belonging to the NSS and governance arrangements are appropriate and regularly reviewed to assess and justify new statistical demands and related costs.

**Good practice 8.7:** Information and communication technologies are regularly monitored and assessed for use in data collection, data processing and data dissemination.

Accuracy

**Good practice 8.8 (adopted from the European Statistics Code of Practice):** Source data, intermediate results and statistical outputs are regularly assessed and validated (ECOP).

**Good practice 8.9:** National Statistical Authorities put in place processes to ensure that sampling and non-sampling errors are measured, systematically documented, and that information is made available to users.

**Good practice 8.10:** Studies and analysis of revisions are regularly conducted according to transparent procedures and the results are made available to users.

Timeliness and punctuality

**Good practice 8.11:** Timeliness meets international statistical release standards.

**Good practice 8.12 (adopted from the European Statistics Code of Practice):** The periodicity of statistics takes into account user requirements as much as possible (ECoP).

**Good practice 8.13 (adopted from the European Statistics Code of Practice):** A standard day time for the release of statistics is made public. (ECoP)

**Good practice 8.14 (adopted from the European Statistics Code of Practice):** Preliminary results of acceptable aggregate accuracy are released when considered useful. (ECoP)

Coherence and comparability

**Good practice 8.15:** Official statistics are consistent within datasets (i.e. elementary data are based on comparable concepts, definitions and classifications and can be meaningfully combined), across datasets (i.e. data are based on common concepts, units, definitions and classifications, or that any differences are explained and can be allowed for) and over time (i.e. data are based on common concepts, definitions, units, classifications, and methodology over time, or that any differences are explained and can be allowed for).

**Good practice 8.16 (adopted from the European Statistics Code of Practice):** Statistics from the different sources and of different periodicity are compared and reconciled (ECoP).

**Good practice 8.17 (adopted from the European Statistics Code of Practice):** Statistics are compiled according to common standards with respect to scope, definitions, classifications, and units in the different surveys and sources. (ECoP)

Relevance

**Good practice 8.18 (adopted from the European Statistics Code of Practice):** Processes are in place to consult users, monitor the relevance and utility of existing statistics in meeting their needs, and consider their emerging needs and priorities. (ECoP)

**Good practice 8.19:** User satisfaction surveys are undertaken on a regular basis. The results are publicly released and considered as an input for decisions about plans and priorities and they are reflected in the statistical work programs.

**Response from adherent on Recommendation 8:**

***Please enumerate the main strengths and weaknesses identified with regard to recommendation 8. Are other good practices relevant to this recommendation implemented in your country? What kind of actions do you consider important to improve the situation as regards recommendation 8 in your country?***

Quality assurance has evolved at the INEGI since its creation in the early 80s. At the end of 2014, the quality assurance framework was revised based on international best practices, including the European Statistics Code of Practice (ECoP) and the Generic Matrix of the United Nations National Quality Assurance Framework (NQAF). As part of this reform, the INEGI Governing Board approved the SNIEG Code of Practice and the INEGI Quality Assurance Norm (NAC). Both are publicly available.

**Main strengths and other good practices**

The SNIEG main strengths in assuring quality of statistical product and processes are discussed in this section. First, the quality assurance framework is described, followed by the institutional goals and targets. Next, the main activities carried out to measure and strengthen data quality are presented.

**1. The SNIEG Code of Practice outlines UE commitments to ensure the quality of official statistics.**

According to the statistical legislation, the SNIEG aims at providing quality data that are relevant, accurate, reliable and timely. As a guidance for achieving this objective, the INEGI Governing Board approved the “SNIEG Code of Practice”, including 15 principles and 63 associated good practices expected from UE.

**2. Moreover, as part of the IIN approval process, the Governing Board reviews two quality dimensions: relevance and use of sound methodologies.**

In keeping with the LSNIEG, the Rules for the Determination of the IIN consider three aspects:

- i. Relevance: This criterion examines the use of statistics for public policy design and evaluation.
- ii. Regularity and periodicity: These criteria verify that statistics are produced continually with pre-determined frequency.
- iii. Use of a sound methodology: This criterion refers to the application of methodologies considered as best practices.

IIN proposals may be submitted by the UE or representatives of the academia, or the social or private sector. These proposals are reviewed by the corresponding Technical Committee and Executive Committee. Once a proposal is approved by the Executive Committee, a technical assessment is sent to the Governing Board for final approval.

**3. The INEGI quality assurance framework includes three elements: the Quality Assurance Committee, Quality Policy and Quality Management System. .**

The Quality Assurance Committee (CAC) is integrated by the Heads of INEGI directorates general and is chaired by the President. The Committee main results are the following:

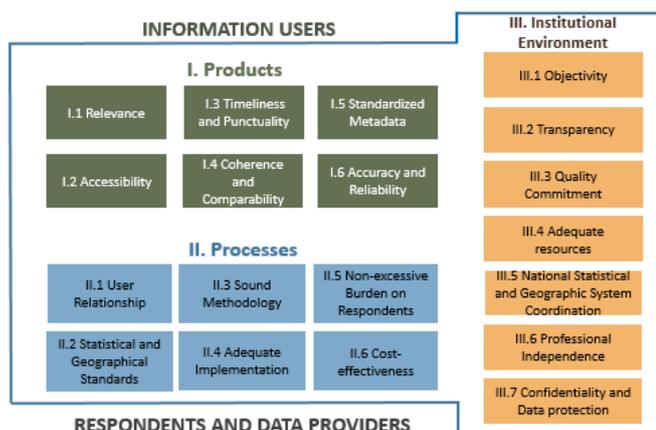
- Definition of the Quality Assurance Policy and the strategy for its internal dissemination.
- Development of the SNI EG Business Process Model, based on the Generic Statistical Business Process Model (GSBPM).
- Pilot implementation of quality assessments and identification of improvement actions.

In addition, the Committee has created working groups in charge of specific task, such as:

- Identifying accuracy and reliability indicators for different types of projects.
- Proposing a set of parameters to assess statistics timeliness based on international recommendations.
- Defining the scope of methodological changes and analyzing their impact on data comparability.
- Developing internal guidelines for identifying user needs.

The Quality Policy includes 19 principles aimed at promoting an enabling institutional environment, and strengthening statistical processes and products (see Figure 8.1).

**Figure 8.1. Quality Policy**



The Quality Management (QM) System will be developed as one of the over-arching processes of the SNIEG Business Process Model. Now, each Directorate General has its own independent quality management mechanisms with different progress levels. QM mechanisms for economic statistics and geographic information are more consolidated. Specifically, IDEF0 (Integration Definition for Function Modeling) diagrams have been developed for QM in economic statistics.

- 4. The 2017 Quality Assurance Program defined three main objectives: i) establishing quality controls in standardized and fully-documented processes; ii) assessing statistical products quality in a systematic way; and iii) developing protocols to document and measure the impact of improvement actions.**

Each year, the Committee approves a Quality Assurance Program. In 2017, three objectives were defined based on the long-term SNIEG Goals (see Figure 8.2).

**Figure 8.2. Objectives, Strategies and Targets for Quality Assurance**

<p><b>Objective 1:</b> Establishing quality controls in standardized and fully-documented processes.</p>	<p><b>Medium-term goals (2019):</b></p> <ul style="list-style-type: none"> <li>80% of IIN projects have fully-documented, standardized processes with quality controls.</li> <li>INEGI has a cost monitoring system.</li> </ul>
<p><b>Strategies:</b></p> <ol style="list-style-type: none"> <li>1.1. Processes standardization and documentation.</li> <li>1.2. Quality controls definition and cost monitoring.</li> </ol>	
<p><b>Objective 2:</b> Assessing statistical products quality in a systematic way.</p>	<p><b>Medium-term goals (2019):</b></p> <ul style="list-style-type: none"> <li>85% of IIN projects have a quality assessment tool approved by the Committee.</li> <li>85% of IIN projects report quality indicators, approved by the Committee, as part of their metadata.</li> </ul>
<p><b>Strategies:</b></p> <ol style="list-style-type: none"> <li>2.1. Elaboration of quality indicators and reports.</li> <li>2.2. Assessment tools design.</li> <li>2.2. Application of assessment tools and techniques.</li> </ol>	
<p><b>Objective 3:</b> Developing protocols to documenting and measuring the impact of improvements actions.</p>	<p><b>Medium-term goals (2019):</b></p> <ul style="list-style-type: none"> <li>80% of IIN projects follow protocols for planning, documenting, consulting and/or assessing improvement actions.</li> </ul>
<p><b>Strategies:</b></p> <ol style="list-style-type: none"> <li>3.1. Definition and application of protocols.</li> <li>3.2. Implementation of improvements.</li> <li>3.3. Quality assurance training and awareness campaign.</li> </ol>	

**5. Several internal and external assessments have been carried out. Some of them reviewed the SNIEG overall performance, while others examined specific types of projects.**

A combination of self-assessments, external reviews, certifications and audits have provided feedback on SNIEG performance and quality issues (see Table 8.1).

**Table 8.1: SNIEG Internal and External Assessments**

Year	Institution in charge of evaluation	Scope
2010	IMF	Report on the Observance of Standards and Codes - National Accounts, Public Finance.
2013	IMF	Report on the Observance of Standards and Codes - Price Indexes.
2014	ISO	Price Indexes Certification.
2015	ASF	SNIEG Performance Audit, FY 2013
2015	IMF	Report on the Observance of Standards and Codes - National Accounts.
2015	IDB	Household Surveys System Pilot Evaluation
2016	INEGI	SNIEG Strategic Program Self-Assessment
2016	INEGI	2013-2018 National Statistical and Geographical Program Self-Assessment
2017 (in process)	OECD	SNIEG Compliance Assessment of Recommendation on Good Statistical Practice
2017 (in process)	ASF	Compliance of objectives and goals of SNIEG, FY 2016
2017 (in process)	ASF	Performance Audit for Poverty Measurement Data Collection Processes, FY 2016

In addition, INEGI conducts several internal performance audits as specified in the Annual Audit Program (INEGI Internal Regulations, Article 49). In 2016, performance audits reviewed the efficiency and efficacy of selected statistical programs and projects across INEGI. The 2016 Audit Report summarizes the findings and proposed solutions.

Finally, in response to the recommendations from international conventions and the Federal Supreme Audit Office (ASF), the INEGI Audit and Risks Committee operates since 2014. This Committee is responsible for the Internal Control System and risk management analysis.

**6. Statistical production relevance is promoted through the SNIEG Committees and the User Advisory Council. Moreover, the INEGI assesses user satisfaction periodically.**

As mentioned earlier, the SNIEG Committees play an important role in addressing statistical needs of policy decision-makers. Likewise, the INEGI Governing Board and Directors General meet twice a year with representatives from civil society and business organizations to gain insights on user needs and satisfaction, through the User Advisory Council.

In addition, INEGI monitors user satisfaction regularly through several channels. For instance, INEGI monitors user satisfaction with the Economic Statistical Information Service (SIEC) on a yearly basis and conducts periodic surveys on different products and services. Monitoring reports are published at INEGI intranet.

**7. Timeliness and punctuality are guaranteed through three mechanisms: publication of statistics on the date and time previously defined in the release calendar; UE coordination; and monitoring of compliance with international statistical release standards.**

As mentioned previously, official statistics are released on the date and time defined in the calendar approved by the Governing Board. Preliminary data may be released to offer users timelier access to aggregate results.<sup>19</sup>

Decision-makers' requirements on statistics periodicity may be discussed by SNIEG Committees and addressed in the work programs, to the extent feasible. These requirements are also reflected on the product delivery dates defined in collaboration agreements. Moreover, one of the criteria reviewed as part of the IIN approval process is the regular frequency of statistics.

Finally, the Quality Assurance Committee is working on a Timeliness Benchmarking Proposal, incorporating international statistical release standards. This proposal identified national or international release standards for 67 INEGI statistical products. Preliminary findings revealed that release standards for these products are met in 65% of the cases.

**8. The accuracy and reliability of the statistical products is ensured through the application of sound methods and procedures specified in their operating manuals.**

Practices to ensure accuracy and reliability vary across different types of statistical projects. Nonetheless, periodic assessment and validation of source data, intermediate results and final products is reported by most projects.

In the case of censuses, surveys and administrative records, each unit has its own operational procedures manuals based on the "Technical Standard for Statistical Production". In addition, surveys are managed according to the "Standardized Process for Conducting Sampling Surveys" and "Sample Design in Survey Projects".

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<sup>19</sup> For more information on the release calendar and the classification of published information, see the responses to Recommendation 6.

All surveys report accuracy estimates associated with sampling errors. These estimates are included in methodological documents available on the internet. Regarding non-sampling errors, these are measured only in some surveys and the information is not available to users.

The application of the previous practices can be exemplified by the Integrated System of Establishments Surveys (SIEUE), described in Recommendation 7. Specifically, the SIEUE relies on a set of accuracy indicators that are reviewed monthly to strengthen the surveys statistical designs.

Another practice aimed at ensuring accuracy and reliability of statistical products is the seasonal adjustment of time series. Following international recommendations, INEGI applies a methodology using X12-ARIMA software, which is produced and distributed by the US Census Bureau. Seasonal adjustment is applied to the main economic indicators, including GDP, Global Indicator of Economic Activity (IGAE), industrial activity, employment, and foreign trade, among others. The seasonal adjustment methodology on the INEGI website.

**9. Coherence is guaranteed using validation criteria specified in their operating manuals. Comparability relies on the use of common concepts, definitions, classifications and catalogs over time and among different data sources.**

Statistical projects include procedures and validation criteria to monitor internal consistency. For example, the SIUE incorporates two data validation procedures: one at the establishment level, and the other one at the sectorial or regional level. Both are integrated in software applications. Moreover, each economic survey has an operational procedure manual, including data-specific validation mechanisms. In the case of household surveys, validation criteria are applied and results are checked for coherence.

Most projects ensure that data are consistent over time, space and among different sources. Specific practices to ensure comparability vary according to type of project, as exemplified below:

Economic Statistics:

- Survey designs use the same definitions and methodologies. Moreover, the use of common concepts is guaranteed by collaborating with UE and international organizations.
- According to the Guidelines for Updating Economic Statistics, “retropolation technics” may be used to preserve the original time series.

- Quarterly GDP estimates are consistent with annual estimates, since both use the same conceptual framework, the same definitions and the same classifications. Quarterly data are adjusted to the annual values, so that the sum totals with the annual value. In the case of annual products, the statistics are harmonized by industry and institutional sector.
- Survey data is compared to administrative records and divergences are explained.
- Tax records and other administrative records from *Petróleos Mexicanos* are used for analysis and validation of the statistics generated by the Monthly Survey on Commercial Establishments (EMEC).
- Metadata include information on differences or changes in statistical series, such as the use of new classifications or adjustments to statistical designs.
- Price Indexes are based on methodological documents and integration manuals that allow data analysis from different sources with different periodicity. Divergences are explained and, if possible, conciliations are made. According to the “Guidelines for Updating Economic Statistics”, base year changes are accompanied by parallel calculations and chained indexes.

#### Socio-demographic and Government Statistics:

- Common socio-demographic variables are collected in a consistent way across household surveys. They also use the same concepts, definitions, classifications and methodologies over time. Any changes to these elements are notified to users. For example, users were notified about the updating of employment and schooling classifications used in household surveys in 2012.
- The “Criteria for the Definition of Census Topics” detail the way in which the comparability of information in time and space will be preserved.
- The “Death Registry Book”, designed to complement data collected through the “Death Certificate”, use the same concepts as the certificate, and both are processed using the same scheme.
- Victimization and government surveys use definitions and nomenclatures derived from legal instruments, manuals and other statistical sources of information.

Finally, the *States Yearbooks* integrate statistical data based on a set of catalogs that allow geographical comparability; make possible calculating national totals, and producing time series. These catalogs are incorporated in the Statistical Products Integrating System (SIPrE) to guarantee their use in the compilation of the statistical yearbook.

## 10. The INEGI monitors and assesses regularly ICT use in data collection, processing and dissemination.

ICT monitoring at the INEGI provides feedback to both technological planning and the computing and communications environment operations. In addition, a review of the existing and anticipated use of technologies in statistical and geographical activities is conducted, as part of the integration of the ICT Strategic Program.

INEGI has a solid institutional capacity for software development. This capacity allows the development of computer solutions for project needs and the continuous update of computer systems. Moreover, it ensures that the IT support is the most adequate according to INEGI's technological platform.

### Other good practices

Strategic planning oriented to quality assurance: The 2016 SNIEG strategic objectives are:

1. Consolidating a **coordinated, independent, transparent and objective** SNIEG.
2. Develop capacities for the data ecosystem.
3. Ensuring the **relevance** and **timeliness** of the information.
4. Producing **accurate, reliable, consistent and comparable** information.
5. Ensuring data **accessibility**.

In this way, quality assurance will be at the center of the SNIEG in the short, medium and long-term activities.

### Challenges and Improvement Actions

The main actions proposed for strengthening the compliance with Recommendation 8 are:

- i. Implementing the SNIEG Business Process Model, based on the GSBPM developed by the UNECE, and
- ii. Concluding the definition and implementation of quality indicators.

As discussed earlier, the QMS will be developed as one of the overarching processes of the SNIEG Business Process Model. Likewise, this Model will facilitate the complete documentation and standardization of statistical sub-processes, including quality controls and indicators. Mapping quality principles with each sub-process will support the consistent application of good practices, simplifying their compliance verification.

Regarding ICT use, the following challenges are faced:

- Strengthening technology governance to take advantage of synergies and avoiding isolated jobs and re-works, without hampering the innovation capacity of the different units.
- Finalizing the review of ICT regulations and organization to formalize technological research, innovation and planning activities, as well as the governance of ICT activities and the units responsible for them.

### Supporting Evidence

Document	URL/Location
Norma para el Aseguramiento de la Calidad del INEGI (Quality Assurance Norm)	<a href="http://sc.inegi.org.mx/repositorioNormateca/NCA09Feb15.pdf">http://sc.inegi.org.mx/repositorioNormateca/NCA09Feb15.pdf</a>
Política de Calidad en el INEGI (Quality Policy)	<a href="http://sc.inegi.org.mx/repositorioNormateca/Pcal.pdf">http://sc.inegi.org.mx/repositorioNormateca/Pcal.pdf</a>
Marco conceptual para el aseguramiento de la calidad de la información estadística y geográfica del Instituto Nacional de Estadística y Geografía (Quality Assurance Framework)	<a href="http://sc.inegi.org.mx/repositorioNormateca/AxPcal.pdf">http://sc.inegi.org.mx/repositorioNormateca/AxPcal.pdf</a>
Programa Anual de Aseguramiento de la Calidad Institucional (Quality Assurance Annual Program)	<a href="http://intranet.inegi.org.mx/calidad/doc/Od_Ene17.pdf">http://intranet.inegi.org.mx/calidad/doc/Od_Ene17.pdf</a>
Manual de Integración y Funcionamiento del Comité de Aseguramiento de la Calidad del INEGI (Quality Assurance Committee Operating Manual)	<a href="http://intranet.inegi.org.mx/calidad/doc/Om_16Dic15.pdf">http://intranet.inegi.org.mx/calidad/doc/Om_16Dic15.pdf</a>
Modelo del Proceso Estadístico y Geográfico del SNIEG SNIEG Business Process Model 0	Attached document.
Principios y Buenas Prácticas del SNIEG (SNIEG Code of Practice)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Principios_Buenas_Practicas_Es_Geo_SNIEG.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Principios_Buenas_Practicas_Es_Geo_SNIEG.pdf</a>
Reglas para la determinación de la Información de Interés Nacional (Rules for the Determination of the IIN)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Reglas_Determinacion_Informacion_Interes_Nacional.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Reglas_Determinacion_Informacion_Interes_Nacional.pdf</a>
Formatos para efectuar propuestas de información estadística y geográfica de Interés Nacional. (IIN Proposals forms)	<a href="http://www.snieg.mx/contenidos/espanol/IIN/Formatos_reg/Formato_IIN_Estadistica.pdf">http://www.snieg.mx/contenidos/espanol/IIN/Formatos_reg/Formato_IIN_Estadistica.pdf</a> <a href="http://www.snieg.mx/contenidos/espanol/IIN/Formatos_reg/Formato_IIN_Geografica.pdf">http://www.snieg.mx/contenidos/espanol/IIN/Formatos_reg/Formato_IIN_Geografica.pdf</a>
Programa Estratégico del SNIEG (PESNIEG) (SNIEG Strategic Program)	<a href="http://www.snieg.mx/contenidos/espanol/programas/PESNIEG_2016-2040.pdf">http://www.snieg.mx/contenidos/espanol/programas/PESNIEG_2016-2040.pdf</a>
IMF Report on the Observance of Standards and Codes, 2015	<a href="http://www.imf.org/external/pubs/ft/scr/2015/cr15176.pdf">http://www.imf.org/external/pubs/ft/scr/2015/cr15176.pdf</a>

IMF Report on the Observance of Standards and Codes, 2013	<a href="http://www.imf.org/external/pubs/ft/scr/2013/cr13329.pdf">http://www.imf.org/external/pubs/ft/scr/2013/cr13329.pdf</a>
IMF Report on the Observance of Standards and Codes, 2010	<a href="http://www.imf.org/external/pubs/ft/scr/2010/cr10330.pdf">http://www.imf.org/external/pubs/ft/scr/2010/cr10330.pdf</a>
Manual del Sistema de Gestión de la Calidad para los índices de precios Manual of Quality Management System for price indexes	Attached document.
Auditorías Realizadas a Procesos de Generación de Información Estadística y Geográfica, 2009-2016 (Audits conducted by the Internal Audit Body, 2009-2016)	Attached document.
Informe de Auditorías 2016 (Audit Report 2016)	Attached document.
Auditorías de desempeño efectuadas por la ASF (Audits conducted by the ASF)	Attached document.
Programa Anual de Auditoría (Annual Audit Program)	Attached document.
Programa Estratégico de Tecnologías de la Información y Comunicaciones (TIC's Strategic Program )	Attached document.
Reporte sobre Parámetros de Oportunidad de la Información Estadística y Geográfica del INEGI (Report on Data Timeliness Parameters)	Attached document.
Lineamientos para el Ciclo de Actualización de la Información Económica Generada por el INEGI (Guidelines for Updating Economic Statistics)	<a href="http://sc.inegi.org.mx/repositorioNormateca/Lod31Ago15.pdf">http://sc.inegi.org.mx/repositorioNormateca/Lod31Ago15.pdf</a>
Sistema Integrado de Encuestas en Unidades Económicas. Compendio de Recomendaciones para el Diseño Estadístico (Integrated System of Establishments Surveys-SIEUE. Recommendations for the Sample Design)	Attached document.
Sistema Integrado de Encuestas en Unidades Económicas. Compendio de Recomendaciones para el Tratamiento y Procesamiento de la Información (Integrated System of Establishments Surveys-SIEUE. Recommendations for the Data Processing)	Attached document.

**Recommendation 9.** Adherents ensure user-friendly data access and dissemination, so that statistics are presented in a clear and understandable form, released in a suitable and convenient manner, including in machine-readable form ('open data'), can be found easily and are available and accessible on an impartial basis with supporting metadata and guidance. This also entails a commitment to respond to major misinterpretations of data by users.

**Good practice 9.1:** Statistical information is available through different dissemination tools, including media channels, Internet, online database and paper publications and easily downloadable in different formats.

**Good practice 9.2:** A dissemination policy ensures the free dissemination of official statistics.

**Good practice 9.3:** In order to ensure equal access to national statistics for international users, English-language statistical information (data and metadata) is available on websites of National Statistical Authorities.

**Good practice 9.4:** A corporate strategy and appropriate guidelines are in place for the preparation of statistical publications (paper and electronic).

**Good practice 9.5:** A corporate database and glossaries promote the use of standard statistical concepts and definitions.

**Good practice 9.6 (adopted from the European Statistics Code of Practice):** Users are kept informed about the methodology of statistical processes including the use of administrative data.

**Good practice 9.7 (adopted from the European Statistics Code of Practice):** Metadata are documented according to standardized metadata systems.

**Good practice 9.8:** A corporate strategy and appropriate guidelines are in place for the preparation and dissemination of metadata on concepts, scope, classifications, basis of recording, data sources, statistical techniques, differences from internationally accepted standards, annotation of good practices, geographical coverage, etc.

**Good practice 9.9:** Processes ensure that sampling and non-sampling errors are measured and systematically documented and that information is made available to users for all key statistical outputs.

**Good practice 9.10:** Internal guidelines are available in statistical agencies on responding to erroneous comments. These guidelines are well known by staff.

**Good practice 9.11 (adopted from the European Statistics Code of Practice):** Access to micro-data is allowed for research purposes and is subject to specific rules or protocols.

**Good practice 9.12:** Where a pricing policy exists for specific services or custom-designed products, conditions of sale are clearly communicated.



**Good practice 9.13:** Educational material is developed with the aim to enhance the use of official statistics and to avoid their misuse and misinterpretation.

**Good practice 9.14:** Official statistics are released in machine-readable form ('open data') that encourage reuse and analyses.

## Response from adherent on Recommendation 9:

*Please enumerate the main strengths and weaknesses identified with regard to recommendation 9. Are other good practices relevant to this recommendation implemented in your country? What kind of actions do you consider important to improve the situation as regards recommendation 9 in your country?*

### Main strengths and other good practices

The main strengths of the SNIEG concerning data dissemination and user-friendly access are presented below. In the first place, the mechanisms within the SNIEG to promote accessibility in a coordinated way are presented. Subsequently, the conditions and means for data dissemination, including access to microdata. Finally, the main activities to promote the knowledge and use of statistical and geographical information are described.<sup>20</sup>

1. **The SNIEG data accessibility is promoted by means of technical regulations, standardization and dissemination of metadata, as well as through the provision of the Data Access Public Service.**
  - a. Technical regulations: The SNIEG Glossary foments the use of harmonized concepts and common language for data dissemination. This also applies for concepts used in the normative provisions related to the SNIEG coordination. Technical and coordination regulations are disseminated through the Normative Compilation System available on the SNIEG's website.
  - b. Standardized metadata availability: The International Data Documentation Initiative (DDI) standard is used for metadata documentation. Likewise, metadata of statistical projects are available through the National Metadata Network (RNM). On the other hand, the National Statistical and Geographical Information Registries have inventories of basic metadata.
  - c. Data Access Public Service (SPI): the rules for the provision of the SPI establish free and timely access for all users to the IIN through different channels. The data dissemination channels include the INEGI's website, Information Centers, the External Consultation Network, INEGI's Call Center, communication and advertising campaigns as well as access to the Microdata Laboratory.

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<sup>20</sup> The measurement of sampling errors mentioned in the good practice 9.9 are included in the response to Recommendation 8.

- d. Open Data: the “Technical Standard for the Access and Publication of Open Data” establishes the provisions for the IIN to be made available to users in open-data format facilitating the access, use, consultation, reuse and redistribution of data for any purpose.
  - e. Dissemination of methodologies: New methodologies and changes in existing methodologies are subject to public consultation through established procedures. The final methodologies are preserved and made available on the INEGI’s website.
- 2. Data produced and integrated by INEGI is disseminated through the channels established by the corresponding provisions. Data is made available to all users on the date and time established in the annual calendar of dissemination of statistical and geographical information.**

The data produced and disseminated by INEGI is free for all users according to the Statistics Access and Dissemination Norm.<sup>21</sup>

For each user group the appropriate dissemination tools and resources are used to maximize the impact of the messages and promote the use of data. In addition, the IIN is disseminated in compliance with the open data attributes:

- I. Public
- II. Free
- III. Non-discriminatory
- IV. Open format
- V. Machine-readable
- VI. Comprehensive
- VII. Timely
- VIII. Permanent

The contents of the INEGI’s website are in the process of being translated to English. The translation includes all navigation elements, statistical and geographical content, glossaries and descriptions of products and services. .

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<sup>21</sup> For more information on practices for responding to misinterpretation or misuse of information, please refer to the response to Recommendation 6.

**3. The INEGI has an Annual Products Program and guidelines for the presentation of statistical products and services.**

The Annual Products Program (PAP) is drafted upon analyzing the users' demands for statistical and geographic information. The PAP plans and programs the design, edition, reproduction, copyright registration and distribution of institutional products (printed and digital) and is approved by a committee every year.

**4. The INEGI has two schemes to access microdata depending on the type of statistical project and user.**

Following best international practices, INEGI makes available the microdata of the national surveys and representative samples of the Censuses, preserving the statistical confidentiality principle (SNIEG Law, Article 100).

The "Rules of operation for the Microdata Laboratory" establish two modalities for accessing microdata:

1. Direct access: Previously anonymized data files from household surveys, government censuses, population census samples, and some administrative records, can be downloaded from the INEGI's website.
2. Indirect: provides access to economic censuses, surveys and administrative records of establishments and agricultural units, microdata from basic questionnaires of the population and housing censuses through remote processing and on-site processing. This service is offered to public servants, graduate students and researchers from academic or research institutions around the world and officials of international organizations.

The conditions of use, the application form, and accreditation of the applicants for this service are available on the website.<sup>22</sup>

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<sup>22</sup> For more information on measures to protect confidentiality, see the response to Recommendation.

**5. INEGI promotes the knowledge and use of statistical and geographical information through different means to cover different types of users.**

INEGI's goal is to increase the use of products and services among different sector of society. Also, INEGI looks to position itself as the main source of official statistics and geographical information. The strategy is based on meeting the demands from the public as well as to promote the use of information among students.

Some examples:

- 1) INEGI's website section: "Cuéntame de México" (Tell Me about Mexico). This section presents national and local statistical and geographical information, interactive and didactic tools, maps for coloring, and curious data. This site is visited about 6 million times every year.
- 2) Textbooks from the Ministry of Education (SEP). The Atlas of Mexico, contributes with the all maps and some statistical content produced by INEGI, is one of the main textbooks for fourth grade students, and every year about 3 million copies are distributed in public and private schools throughout the country.
- 3) By the end of 2016, INEGI had 226,000 followers on Twitter, 144,000 on Facebook, and 1400 in YouTube. .
- 4) Annual Fairs Program. In 2016, it comprised 21 participations in fairs with an attendance of 18,018 users.

On the other hand, the "*Cátedra INEGI*" (INEGI lectures given to university students) is an initiative aimed at promoting the statistical and geographical culture based on the activities of INEGI. The lectures have two objectives. First, to contribute to the training of the students enhancing their technical capabilities to identify, analyze and solve problems based on statistical data. Second, develop new communication channels to promote projects, services and products of INEGI.

**Challenges and Improvement Actions**

The continuous improvement of the SNIEG for Recommendation 9 is covered by the fifth objective of the PESNIEG related to ensuring the data accessibility. The general actions proposed for the achievement of this objective are:

- i. To provide users with simple, consistent and standardized data.
- ii. To develop tools that facilitate access and use of statistical and geographical information.
- iii. To develop products and services that facilitate the use and interpretation of the data.
- iv. To promote knowledge and appropriate use of statistical and geographical information.

Among the challenges for achieving this strategic objective are:

- To consolidate the standardization of the concepts related to the statistical and geographical activities and the implementation of mechanisms to verify the application of the technical standards for metadata documentation by the UE.
- The improvement and expansion of access to the Microdata laboratory, currently only one microdata Lab is available in Mexico City.
- The improvement of the INEGI's website to facilitate the search of the data.
- To promote knowledge and use of statistical and geographical information in states and municipalities, particularly data that allows them to strengthen the design and assessment of public policies.

### Supporting Evidence

Document	URL/Location
Norma para la difusión y promoción del acceso conocimiento y uso de la información estadística y geográfica que genera el INEGI. Artículos 4 fracción II, 8 y 18 (Statistics Access and Dissemination Norm, Articles 4, section II, 8 and 18)	<a href="http://sc.inegi.org.mx/repositorioNormateca/On_15Ene16.pdf">http://sc.inegi.org.mx/repositorioNormateca/On_15Ene16.pdf</a>
Reporte de avance en la traducción del Sitio del INEGI (versión Beta) (Report on the progress in the translation of the INEGI Website)	Attached document.
Lineamientos para el desarrollo y publicación de productos del INEGI Artículos 2, 11 y 87 (Guidelines for Developing and Publishing INEGI Products, Articles 2,11 and 87)	<a href="http://sc.inegi.org.mx/repositorioNormateca/Loda_23Sep14.pdf">http://sc.inegi.org.mx/repositorioNormateca/Loda_23Sep14.pdf</a>
Lineamientos de Cambios a la Información Divulgada en las Publicaciones Estadísticas y Geográficas del Instituto Nacional de Estadística y Geografía (Guidelines for Changes in Released Data)	<a href="http://sc.inegi.org.mx/repositorioNormateca/OL_06Jun13.pdf">http://sc.inegi.org.mx/repositorioNormateca/OL_06Jun13.pdf</a>
Manual de Procedimientos de la Dirección General Adjunta de Comunicación. Procedimientos 9, 10, 11 y 15 (Communications Deputy General Directorate Operating Procedures Manual, Procedures 9, 10, 11, and 15)	<a href="http://sc.inegi.org.mx/repositorioNormateca/MP2_Ene17.pdf">http://sc.inegi.org.mx/repositorioNormateca/MP2_Ene17.pdf</a>

Presentación de datos estadísticos en cuadros y gráficas (Presentation of Statistical Data in Tables and Graphs)	<a href="http://internet.contenidos.inegi.org.mx/contenidos/Productos/prod_serv/contenidos/espanol/bvinegi/productos/metodologias/varios/Pre_Res_Est.pdf">http://internet.contenidos.inegi.org.mx/contenidos/Productos/prod_serv/contenidos/espanol/bvinegi/productos/metodologias/varios/Pre_Res_Est.pdf</a>
Norma Técnica para la Elaboración de Metadatos para proyectos de generación de Información Estadística Básica y de los componentes estadísticos derivados de proyectos geográficos (Technical Standard for metadata documentation of statistical projects)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/ACUERDO_NT_Elaboracion_metadatos_Proyectos_Estadisticos.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/ACUERDO_NT_Elaboracion_metadatos_Proyectos_Estadisticos.pdf</a>
Red Nacional de Metadatos (National Metadata Network)	<a href="http://www3.inegi.org.mx/rnm/index.php/home">http://www3.inegi.org.mx/rnm/index.php/home</a>
Ley del SNIEG. Artículos 3, 38, 100, 101, 102, 104 fracción V y VI (SNIEG Law, Articles 3, 38, 100, 101, 102, 104, section V and VI)	<a href="http://sc.inegi.org.mx/repositorioNormateca/Lmj_SNIEG.pdf">http://sc.inegi.org.mx/repositorioNormateca/Lmj_SNIEG.pdf</a>
Sección de Acceso a Microdatos en la página del INEGI en Internet (Microdata access section on the INEGI Website)	<a href="http://www.inegi.org.mx/est/contenidos/proyectos/accesomicrodatos/">http://www.inegi.org.mx/est/contenidos/proyectos/accesomicrodatos/</a>
Reglas para la Prestación del Servicio Público de Información Estadística y Geográfica (Data Access Public Service Operating Rules)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/coordinacion/ACUERDO%20de%20Reglas%20para%20la%20PSPIEG.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/coordinacion/ACUERDO%20de%20Reglas%20para%20la%20PSPIEG.pdf</a>
Sección Cuéntame de México (Section: Tell me about Mexico)	<a href="http://www.cuentame.inegi.org.mx">www.cuentame.inegi.org.mx</a>
Infografías sobre temas específicos para publicar en redes sociales (Infographics on specific topics to post on social networks)	<a href="http://www.facebook.com/INEGIMexico">www.facebook.com/INEGIMexico</a> <a href="http://www.youtube.com/user/INEGIInforma">www.youtube.com/user/INEGIInforma</a>
Norma técnica para el acceso y publicación de datos abiertos de la IIN (Technical Standard for the Access and Publication of Open Data)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/AcuertoNT_DAdelaIEyGdeIIN.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/AcuertoNT_DAdelaIEyGdeIIN.pdf</a>

**Recommendation 10.** Adherents establish responsibilities for co-ordination of statistical activities within the National Statistical System. To this end, Adherents should ensure that:

i) the co-ordination of statistical activities among statistical producers is done through the use of standard concepts and classifications and avoids the duplication of effort;

ii) responsibilities for such co-ordination function are clearly laid out and anchored in statistical legislation.

**Good practice 10.1:** The role and responsibilities of all producers of statistics are clearly determined by law. A coordinator of the National Statistical System, such as the NSO, is also designated by law.

**Good practice 10.2:** The designated coordinator has responsibility to co-ordinate the statistical activities of official producers in the NSS and to represent the NSS as a whole. This concerns in particular the use of appropriate statistical concepts and procedures, the implementation of international standards and efforts to minimize duplications in data collection, production and dissemination of official statistics.

**Good practice 10.3:** Procedures, mechanisms, tools, guidelines, or agreements are in place to ensure effective co-ordination within the NSS. Procedures include: establishment of a national statistics plan; coordinated data dissemination, e.g. through a single data portal; assistance with implementation of international standards and classification; and common quality management processes.

**Good practice 10.4:** Exchange of statistical information between statistical agencies is actively undertaken.

**Response from adherent on Recommendation 10:**

*Please enumerate the main strengths and weaknesses identified with regard to recommendation 10. Are other good practices relevant to this recommendation implemented in your country? What kind of actions do you consider important to improve the situation as regards recommendation 10 in your country?*

The main strengths of the coordination of statistical and geographical activities within the SNIEG are presented, beginning with the legal basis for the responsibility of the INEGI. Subsequently, the SNIEG's organization and coordinating mechanisms for the planning and development of statistical and geographical activities are described.

**Main strengths and other good practices**

**1. By constitutional mandate, INEGI is an autonomous public institute responsible for the SNIEG coordination and regulation.**

The LSNIIEG establishes that INEGI is the central unit responsible of the regulation and organization for the SNIEG efficient operation.<sup>23</sup>The LSNIIEG also stipulates INEGI's authority to promote the use of standard concepts, definitions and classifications, and other elements required to ensure data comparability at the international level.

The INEGI also regulates the production, processing, conservation and dissemination of statistical and geographical information through general provisions, taking into account national and international standards, as well as best practices in this matter.

**2. The SNIEG bodies have made it possible to consolidate the bases of collaboration between INEGI and the UE.**

The Executive Committees (CE) contribute to the operation and development of the SNIEG through the inter-institutional coordination and the promotion of knowledge and use of IIN within the scope of their respective competencies.

As indicated in Table 10.1, the INEGI Governing Board has approved the establishment of 39 Technical Committees on different statistical and geographic domains. These CTE work on the integration of proposals for normative provisions, guidelines, technical standards and classifications, which must be approved by the corresponding Executive Committee (CE). On the other hand, the CTE and its working groups also carry out activities related to the identification, diagnosis, analysis and documentation of statistical and geographical information deemed necessary to meet the IIN requirements.

<sup>23</sup> For more information, see the response to Recommendation 1.

**Table 10.1 List of Technical Committees by Subsystem**

<b>Demographic and Social Information Subsystem</b>
1. Labor Statistics and Social Security
2. Social Development
3. Population and Demographic Dynamics
4. Health
5. Housing
6. Education
7. Sustainable Development Goals
8. Gender perspective for Statistical and Geographical information
9. Culture
10. Disability
11. Youth
12. Physical Culture and Sport
13. Protection of the Rights of Children and Adolescents
<b>Economic Information Subsystem</b>
14. Business Registry
15. Agriculture, Food and Fisheries
16. Tourism
17. Macroeconomic Statistics and National Accounts
18. Foreign Trade Statistics
19. Science, Technology and Innovation Statistics
20. Operation of the Transport Sector
21. Price Statistics
22. Industry
23. Infrastructure of the Transport
24. Information Society
<b>Geographic and Environmental Information Subsystem</b>
25. Geographical Information
26. Water
27. Land Use, Vegetation and Forest Resources
28. Energy
29. Pollutant Emissions, Residues and Hazardous Substances
30. Climate Change
31. Cadastral Registry
32. Regional and Urban Development
<b>Government, Public Security and Justice Information Subsystem</b>
33. Government Information
34. Access to Justice
35. Justice Procurement (Law enforcement)
36. Public Security
37. Prevention of Violence and Delinquency
38. Open Data
39. Penitentiary System

**3. According to the Law, the SNIEG has a set of mechanisms for effective coordination in the planning and development of statistical and geographical activities.**

The main coordination tools are:

a. Programming: The INEGI Governing Board approves the work programs for the planning, production and dissemination of the IIN in the short, medium and long term. This is achieved through of the “SNIEG 2016-2014 Strategic Program (PESNIEG)”, with a time horizon of 24 years; the “National Work Program of Statistics and Geography (PNEG)”, with a time horizon of 6 years; and the “Annual Work Program of Statistics and Geography (PAEG)” (Articles 9, 10, 11, 12 and 77, section I).

b. Norms and standards: INEGI is enabled to issue, through its Governing Board, a set of normative provisions that regulate, guide, supervise and systematize the production, integration and dissemination of statistical and geographical information, as well as the necessary activities for the coordination of the SNIEG members (Articles 8, 58, 62 and 77, section VIII).

c. Training: INEGI, as the SNIEG coordinator, develops a permanent and updated training program to improve the technical capabilities of public servants from the UE (Article 36).

d. Statistical and Geographic Information Registries (RNIEG): its purpose is to disseminate the basic metadata of the statistical and geographical official data and the units that produce it (Article 92).

d. Information repository: Its purpose is to integrate and preserve the IIN produced by the UE, as well as its metadata, through of an organized data inventory (Article 96).

f. Data Access Public Service (SPI): its aim is to make available to the users the IIN produced within the SNIEG, as well as to promote its knowledge and use (Article 98).

**Other good practices**

National Geo-statistical Framework (MGN): is a system designed by INEGI to correctly georeference the statistics from censuses and surveys with the corresponding geographical location (see Recommendation 7).

National Indicators Catalog (CNI): The SNIEG Law establishes that INEGI will create, in coordination with the UE, a National Indicators Catalog based on the data produced within the Information Subsystems (Article 56). The CNI is a set of key Indicators providing data for the design, monitoring and evaluation of public policies. In addition, indicators requested by international organizations can be integrated into the Catalog.

The INEGI Governing Board, based on relevance, methodological accuracy and frequency criteria, approves the key indicators. The proposals for key indicators are integrated by the UE and submitted by the corresponding Executive Committee.

### **Challenges and Improvement Actions**

One of the objectives of PESNIEG 2016-2040 is to consolidate the coordination of the SNIEG. The main challenges are described below:

#### **1. The participation of the UE is unstable.**

The frequent change of the officials appointed by the UE as representatives in the SNIEG bodies hinders the continuity of their participation. In states and municipalities, there is also a constant turnover of personnel, which makes it difficult to coordinate at the State and Municipal level.

On the other hand, it is necessary to strengthen the coordination functions of the UE, so that the different units and institutions of the government be more involved in statistical and geographical activities.

#### **2. The implementation of the regulations is still in process.**

Despite the progress in the development of normative provisions and technical standards, their dissemination and implementation is still partial. It is necessary to establish complementary actions to strengthen the compliance of these regulations.

#### **3. Strengthen the procedures and criteria for a strict proposals review of the IIN and key indicators.**

It would be advisable to strengthen the revision of IIN proposals, as well as to consider a periodic evaluation of the IIN to verify that it continues to meet the established quality criteria. Likewise, it is advisable to refine and specify the criteria for the inclusion of key indicators in the National Indicators Catalog.

## Documental support

Document	URL/Location
Consejo Consultivo Nacional (National Advisory Council)	<a href="http://www.snieg.mx/">http://www.snieg.mx/</a> > Consejo Consultivo Nacional
Comités Ejecutivos (Executive Committees)	<a href="http://www.snieg.mx/">http://www.snieg.mx/</a> > Comités Ejecutivos
Comités Técnicos Especializados (Technical Committees)	<a href="http://www.snieg.mx/">http://www.snieg.mx/</a> > Comités Técnicos Especializados
Portal del SNIEG (SNIEG's website)	<a href="http://www.snieg.mx">http://www.snieg.mx</a>
Programa Estratégico del SNIEG 2016-2040 (SNIEG 2016-2040 Strategic Program)	<a href="http://www.snieg.mx/contenidos/espanol/programas/PESNIEG_2016-2040.pdf">http://www.snieg.mx/contenidos/espanol/programas/PESNIEG_2016-2040.pdf</a>
Programa Nacional de Estadística y Geografía 2013- 2018 (National Work Program of Statistics and Geography)	<a href="http://www.snieg.mx/contenidos/espanol/programas/PNEG%202013-2018.pdf">http://www.snieg.mx/contenidos/espanol/programas/PNEG%202013-2018.pdf</a>
Programa Anual de Estadística y Geografía 2017 (Annual Work Program of Statistics and Geography)	<a href="http://www.snieg.mx/Contenidos/espanol/Programas/PAEG_2017.pdf">http://www.snieg.mx/Contenidos/espanol/Programas/PAEG_2017.pdf</a>
Ley del Sistema Nacional de Información Estadística y Geográfica. (SNIEG Law, Art. 7, 8, 17, 36, 38, 57, 58, 88, 92, 94, 95, 96, 97, 98, 99 y 10)	<a href="http://www.snieg.mx/contenidos/espanol/normatividad/marcojuridico/LSNIEG.pdf">http://www.snieg.mx/contenidos/espanol/normatividad/marcojuridico/LSNIEG.pdf</a>
Catálogo Nacional de Indicadores (National Indicators Catalog)	<a href="http://www3.inegi.org.mx/sistemas/cni/">http://www3.inegi.org.mx/sistemas/cni/</a>
Principios y Buenas Prácticas para las Actividades Estadísticas y Geográficas del SNIEG (SNIEG Code of Practice)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Principios_Buenas_Practicas_Es_Geo_SNIEG.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Principios_Buenas_Practicas_Es_Geo_SNIEG.pdf</a>
El Registro Estadístico Nacional (Statistical Information Registry)	<a href="http://www.snieg.mx/RNIEG/REN/Documentos/InstructivoRen.pdf">http://www.snieg.mx/RNIEG/REN/Documentos/InstructivoRen.pdf</a>
El Registro Nacional de Información Geográfica (Geographical Information Registry)	<a href="http://www.snieg.mx/rnieg/RNIG/Documentos/RNIG_instructivo_llenado.pdf">http://www.snieg.mx/rnieg/RNIG/Documentos/RNIG_instructivo_llenado.pdf</a>

Reglas para la integración y administración del Acervo de Información de Interés Nacional, artículo 5, 6 fracciones I, II, III (Rules for the integration and administration of the IIN Repository)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/ACUERDO_Reglas_para_el_AcervolIIN.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/ACUERDO_Reglas_para_el_AcervolIIN.pdf</a>
Informe 2016. Actividades y Resultados. INEGI. Página 20 y 36 (SNIEG Activities and Results Report 2016)	<a href="http://www.snieg.mx/contenidos/espanol/inegi_coord/Informe/Informe2016_Actividades_y_Resultados.pdf">http://www.snieg.mx/contenidos/espanol/inegi_coord/Informe/Informe2016_Actividades_y_Resultados.pdf</a>
Servicio Público de Información (Data Access Public Service)	<a href="http://www.snieg.mx/">http://www.snieg.mx/</a> > El INEGI como Unidad Central Coordinadora del SNIEG > Unidad Central Coordinadora > El servicio Público de Información
Relación de Información de Interés Nacional aprobada por la Junta de Gobierno del INEGI (List of approved IIN)	<a href="http://www.snieg.mx/">http://www.snieg.mx/</a> > La Información de Interés Nacional > Relación de Información de Interés Nacional
Reglas CCN (National Advisory Council Operating Rules)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Reglas_consejo_consultivo.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Reglas_consejo_consultivo.pdf</a>
Reglas CE (Executive Committees Operating Rules)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Reglas_comites_ejecutivos.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Reglas_comites_ejecutivos.pdf</a>
Reglas CTE (Technical Committees Operating Rules)	<a href="http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Reglas_CTE%20081216.pdf">http://www.snieg.mx/contenidos/espanol/Normatividad/Normatividad_Vigente/Archivos_NV/Reglas_CTE%20081216.pdf</a>

**Recommendation 11.** Adherents commit to international co-operation. To this end, Adherents should:

i) encourage statistical producers to achieve common goals in statistics jointly with the statistical producers in other countries and with international organizations, with a view to developing internationally comparable statistics, to designing international standards and to exchanging information on good practice;

ii) provide the necessary data for the OECD's reporting system and analytical work, in compliance with international statistical standards as recognized by the OECD and preferably using the Statistical Data and Metadata exchange method/standard in particular for domains with internationally agreed Data Structure Definitions (DSDs).

**Good practice 11.1:** National statisticians participate actively and regularly in international expert groups, conferences and workshops.

**Good practice 11.2:** National Statistical Authorities participate in joint projects with other countries to share development burden.

**Good practice 11.3:** Heads of NSOs or their staff chair international statistical bodies.

**Good practice 11.4:** National Statistical Authorities participate in the main international statistical fora to exchange on their statistical practices, to participate in research and conceptual work and to contribute actively to the definition and design of international norms and statistical standards.

**Good practice 11.5:** Access to micro-data by international organizations is explored as a means to reduce the burden of countries responding to questionnaires.

**Good practice 11.6:** National Statistical Authorities provide complete and timely answers to the questionnaires of international organizations.

**Good practice 11.7:** Producers of official statistics use modern statistical and IT tools, such as SDMX for the regular transmission of data and metadata to international organizations, notably the OECD.

**Response from adherent on Recommendation 11:**

*Please enumerate the main strengths and weaknesses identified with regard to recommendation 11. Are other good practices relevant to this recommendation implemented in your country? What kind of actions do you consider important to improve the situation as regards recommendation 11 in your country?*

The main strengths of the SNIEG regarding international cooperation are presented in this section. In the first place, the coordination mechanisms for international cooperation within the SNIEG are explained. Subsequently, the main areas of participation of INEGI in the international context are described.

**Main strengths and other good practices**

- 1. The SNIEG has mechanisms aimed at coordinating national responses to international data requirements.**

In order to coordinate the official data flows from Mexico, the law requires that any request from foreign governments and/or international organizations be informed to INEGI. For that purpose, a data exchange site has been set up to attend these requests.

- 2. INEGI has an active participation in several international activities, including chairing international bodies, collaborating in expert groups, special projects, and attending forums, workshops and conferences.**

*Chairing international bodies*

The Governing Board members and directors of INEGI have chaired or co-chaired the following international bodies in recent years:

Body/ Organization	Period	Objective
<b>Executive Committee of the Statistical Conference of the Americas of ECLAC</b>	2016-2017	Coordinate regional work to foster the development and improvement of statistics and international comparability on core issues such as SDG indicators.
<b>International Association for Official Statistics (IAOS)</b>	2015-2019	Promote the understanding and progress of official statistics and related subjects; and to encourage the development of effective and efficient official statistical services, particularly in developing countries.

Body / Organization	Period	Objective
<b>United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM)</b>	2016-2017	Follow up on the implementation and adoption of standards for the geospatial information global community and the integration of geospatial and statistical information.
<b>UN Global Geospatial Information Management for the Americas (UN GGIM Americas)</b>	2017-2021	Establish and coordinate technical policies and standards for the development of regional geospatial data infrastructure in the Americas and promote the establishment and development of such infrastructure in each of the member countries.
<b>OECD Committee on Statistics and Statistical Policy (CSSP)</b>	2014-2015	Promote policy development by Members and Partners (non-members) based on truthful evidence and evidence-based analysis, and provide civil society with reliable and comparable statistical information at the international level.
<b>GEOS Initiative for the Americas</b>	2015-2017	Coordination of the regional group of GEO around activities in specific subjects (water, agriculture, biodiversity, disaster management and urban development).
<b>Inter-agency and Expert Group on Sustainable Development Goals Indicators (IAEG-SDGs)</b>	2015-2017	Lead the work to develop the global indicator framework for follow up of the SDGs.
<b>United Nations Expert Group on the Integration of Statistical and Geospatial Information (UN-EG-ISGI)</b>	2016-2019	Create a Global Geostatistical Framework; integrate the necessary statistical and geographical information for the 2020 round of censuses; and to establish the pilot test of an interoperable global framework of geospatial and statistical information as a best practice.

### *Participation in international Expert Groups*

INEGI's staff participates in 145 Expert Groups, among them stand out:

- UNECE Task Force on Climate Change Related Statistics, whose objective is defining a set of comparable statistics and indicators, taking into account the methodology of the System of Environmental-Economic Accounting (SEEA) and SDGs.
- UNSD Interagency and Expert Group on Gender Statistics (IAEG-GS), INEGI participates in the pilot survey on violence against women, which produced the minimum set of indicators and the guidelines to produce statistics on this subject.

- OECD-UNECE-UNODC Advisory Group on Measuring Trust in Public Institutions, which analyzed, discussed and defined tools, conceptual frameworks and guidelines for the statistical measurements on trust.

### *Collaboration in special projects*

Some examples of INEGI's participation in special projects include:

- "Evidence and Data for Gender Equality (EDGE)" has been very important. Mexico was the first country that participated through a National Statistics Office in 2015 in order to test this methodological proposal through the module on measuring assets ownership and entrepreneurship, whose methodological guidelines was presented during the 48<sup>th</sup> Session of the United Nations Statistical Commission in 2017.
- Since October 2015, INEGI has been part of the Advisory Group of the Inter-American Development Bank (IDB) for the technical cooperation project "Regional Statistics Initiative on Violence against Women", due to the Institute's experience in the design and implementation of the Violence against Women Survey (ENDIREH), which is a regional parameter on the subject. This project aims to promote a standardized proposal to develop a household survey on Violence against Women.
- INEGI participates since 2016 in the LA-KLEMS Project. INEGI seeks to share its experience in the elaboration of the Indicator of Total Productivity of Factors under the KLEMS model, which in a first stage was coordinated by UN ECLAC. This is because Mexico was the first country in the Latin American region to publish official KLEMS statistics.
- The Working Group of the System of Environmental-Economic Accounting, Experimental Ecosystem Accounting (SEEA-EEA) is chaired by INEGI for the 2014-18 period. It has emerged as a leading tool in the support of policy and analysis of the environment and its relation with economic and human activities. Its particular strength is its capacity to integrate environmental information into standard measures of economic activity. Aims at reviewing the availability of data and measurement practices and develop a national plan to advance the ecosystem accounting in pilot countries in order to validate a methodology for the generation of ecosystem accounts. The fact that Mexico leads this pilot project shows the international recognition in the field of ecosystem accounting, since very few countries have the conditions to integrate both types of measurements.

### *Participation in forums, conferences and workshops*

Some of the most important international forums in which INEGI has had continuous participation are:

- The United Nations Statistical Commission, where INEGI can share its experience in the production of statistical and geographical information, as well as holding bilateral and multilateral meetings with members of the different Experts and Working Groups in which it participates.
- UNECE Conference of European Statisticians (CES). The President of INEGI is member of its Bureau for the next two years. The Conference coordinates international statistical work; develops guidelines and recommendations on statistical methodology through Task Forces; builds capacity to improve national statistics, collects and disseminates internationally comparable statistics.
- International Statistical Institute (ISI) World Statistics Congresses, where the officials of INEGI can present, discuss, promote and disseminate best practices and research related to different statistical areas and their applications with other members of the global statistics community.
- The European Conference on Quality in Official Statistics (Q2016), in which INEGI has had the opportunity to expose the measures that are implemented in Mexico in order to assure the quality of information, as well as to learn about new tools and methodologies for quality measurement and assessment.
- The United Nations Commission on Crime Prevention and Criminal Justice (CCPCJ), which acts as the main regulatory body on these issues. It is also a forum for the exchange of knowledge, experiences and statistics with a focus on the development of national and international strategies for combating crime. An important achievement has been include the issue of improving the quality and availability of statistics about drugs in the work of the Commission.

### **3. INEGI keeps a permanent data exchange with international organizations and other NSOs.**

Among the activities for exchanging data, include:

- Microdata access for specific statistical projects that are not part of the regular requirements of international organizations.

- Provide the response to questionnaires of international organizations, the most frequent being: the OECD Regional Questionnaire and Labor Force Survey Questionnaires, the United Nations Monthly Bulletin of Statistics and the Annual Vital Statistics Questionnaire of the UNSD Demographic Yearbook and the Industrial Production Index Questionnaire.
- Sending of information and documentation within the bilateral and multilateral cooperation framework.
- Use of the SDMX standard for the continuous transmission of data and metadata to international organizations, in particular to the OECD. In 2010, it was agreed with the OECD to replace data in Excel format with SDMX flows for: a) Short-term Economic Indicators; b) Merchandise Trade Statistics; c) Quarterly Gross Domestic Product at constant prices; d) Short-term Economic Statistics; and with the UN Statistics Division for the Millennium Development Goals indicators. All these flows of information are available on the INEGI website.<sup>24</sup>

### Other good practices

Give support to the Congress and the Executive branch in matters of international treaties, conventions or agreements. INEGI participates in the Working Group chaired by the Foreign Ministry of Mexico to define the limits of the extended continental platform of the Eastern Polygon of the Gulf of Mexico, within the framework of trilateral negotiation rounds with the United States and Cuba.

Technical assistance: INEGI provides technical assistance to others NSO and receives official delegations from other institutions to undertake internships at the Institute.

One of the main technical assistance activities is carried out in collaboration with the Mexican Agency of International Cooperation for Development (AMEXCID). Among the results of this cooperation is the formation of Short Term Indicators of Economic Activity (ICAE) in Haiti; funding for the participation of officials from the Mesoamerican region in statistical events and the development of spatial data infrastructure in member countries of the Association of Caribbean States.

Organization of international events: INEGI co-organizes with international organizations gatherings of great relevance to the global statistical and geographical community. In the last 3 years, 18 international events were organized, among which are the following:

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<sup>24</sup> <http://www.inegi.org.mx/inegi/contenidos/servicios/sdmx/default.aspx>

- The Expert Meeting on Statistical Data and Metadata Exchange (SDMX).- This meeting took place from 17-20 October 2016 at INEGI headquarters in the city of Aguascalientes and it was attended by 95 participants from international organizations such as the World Bank, UNSD, OECD, IMF, Eurostat, the African Development Bank and the European Central Bank, among others.
- The Annual Meeting of Specialists on the Use of Time and Unpaid Work. This event has been organized by INEGI for 14 years in collaboration with the National Institute of Women of Mexico (INMUJERES), UN Women and the United Nations Economic Commission for Latin America and the Caribbean (ECLAC). The aim of bringing together specialists from NSOs in the region, civil society organizations, academia and international organizations to share knowledge and good practices related with the improvement and harmonization of statistics in this matter.
- International Conference on Governance, Security and Justice Statistics, which has been held biennially since 2012 with the purpose of generating a space for exchange, dialogue and reflection about the development of methodologies and the improvement of statistical and geographical information to support decision making and the formulation of public policies in these matters.

It is important to mention that from 13 - 17 November 2017 INEGI will organize in its headquarters in the city of Aguascalientes the IX Meeting of the Statistical Conference of the Americas of ECLAC. This meeting will bring together representatives of the NSOs of the region to discuss about the latest advances in the generation of statistics and its relevance to achieve the progress contemplated in the 2030 Agenda for Sustainable Development.

Funding and operation of the Centers of Excellence. INEGI in coordination with the United Nations Office on Drugs and Crime (UNODC) established the Centre of Excellence in Statistical Information on Government, Crime, Victimization and Justice in 2010, in order to support the strengthening of Latin American and Caribbean countries' technical capacities to generate statistics on governance, victimization, perception on public security and justice.

One of the results of this joint work is the approval by the United Nations Statistical Commission of the International Classification of Crimes for Statistical Purposes (ICSS). This classification aims to improve the international consistency and comparability of crime statistics and analytical capacity at the national and international levels.

On the other hand, since late 2016, UN Women and INEGI have been working to establish the Global Center of Excellence in Gender Statistics (CEEG) in Mexico. The objective of the CEEG is to strengthen the generation, availability, analysis and use of internationally comparable data and statistics on key and emerging issues for the achievement of gender equity and the women's empowerment.

Strategic alliances for the strengthening of technical capacities: INEGI, together with the National Council of Science and Technology of Mexico (CONACYT), signed a Memorandum of Understanding with the International Institute for Applied Systems Analysis (IIASA). One of the benefits of collaboration with IIASA is the acquisition of knowledge to strengthen the INEGI's work in the development of the “Dynamic Demographic Model of Mexico”.

### Challenges and Improvement Actions

The opportunity areas of international cooperation include: the multiplicity of channels used by international agencies to address their requests of statistical and geographical information, which causes the loss of control over data flows, and the additional demand of work that the attention of international activities represent for the staff of INEGI.

International cooperation will be strengthened as part of objective 2 of the 2016-2040 PESNIEG, which aims to develop capacities for the data ecosystem. Specifically, one of the proposed actions is to establish strategic alliances with the international community in order to maximize the sources of knowledge, sources of information and talent development.

### Supporting Evidence

Document	URL/Location
Inventario de grupos de expertos en los que participa el personal del INEGI (Inventory of Expert Groups in which the staff of INEGI participates)	Attached document.  Intranet site. International presence <a href="http://intranet.inegi.org.mx/IdentidadInstitucional/Presencia%20internacional/SitePages/default.aspx">http://intranet.inegi.org.mx/IdentidadInstitucional/Presencia%20internacional/SitePages/default.aspx</a>
Programa Anual de Viajes al Extranjero (Annual Program of International Missions) Informe Anual de Misiones al Extranjero (Annual Report of Missions Abroad)	Intranet site. International Missions reports: <a href="http://intranet.inegi.org.mx/identidadinstitucional/Presencia%20internacional/Informes%20de%20viajes%20al%20exterior/SitePages/default.aspx">http://intranet.inegi.org.mx/identidadinstitucional/Presencia%20internacional/Informes%20de%20viajes%20al%20exterior/SitePages/default.aspx</a>
International Statistical Agencies	United Nations Global Geospatial Information Management <a href="http://ggim.un.org/UN_GGIM_Bureau.html">http://ggim.un.org/UN_GGIM_Bureau.html</a> <a href="http://ggim.un.org/Regional%20Entities.html">http://ggim.un.org/Regional%20Entities.html</a> <a href="http://ggim.un.org/UN_GGIM_wg6.html">http://ggim.un.org/UN_GGIM_wg6.html</a>  International Association for Official Statistics (IAOS) <a href="http://www.iaos-isi.org/index.php/mario-palma">http://www.iaos-isi.org/index.php/mario-palma</a>  Statistical Conference of the Americas of ECLAC <a href="http://www.cepal.org/deype/ceacepal/acercacomite.htm">http://www.cepal.org/deype/ceacepal/acercacomite.htm</a>

	<p>OECD  <a href="http://www2.oecd.org/OECDGROUPS/Bodies/ShowBodyView.aspx?BodyID=7229&amp;BodyPID=9576&amp;Lang=en&amp;Book=http://www.contraloria.gob.pa/inec/IASI/datos/organizacion/organizacion_2016.html">http://www2.oecd.org/OECDGROUPS/Bodies/ShowBodyView.aspx?BodyID=7229&amp;BodyPID=9576&amp;Lang=en&amp;Book=http://www.contraloria.gob.pa/inec/IASI/datos/organizacion/organizacion_2016.html</a></p> <p>United Nations Statistical Commission  <a href="https://unstats.un.org/unsd/statcom/">https://unstats.un.org/unsd/statcom/</a></p> <p>Interagency and Expert Group on Gender Statistics  <a href="https://unstats.un.org/unsd/gender/about.html">https://unstats.un.org/unsd/gender/about.html</a></p> <p>Inter-agency Expert Group on SDG Indicators  <a href="https://unstats.un.org/sdgs/iaeg-sdgs/">https://unstats.un.org/sdgs/iaeg-sdgs/</a></p>
Inventario de flujos de información (SDMX) (SDMX Data flows Inventory)	<a href="http://www.inegi.org.mx/inegi/contenidos/servicios/sdmx/default.aspx#/dataflows">http://www.inegi.org.mx/inegi/contenidos/servicios/sdmx/default.aspx#/dataflows</a>
Herramientas SDMX para la transmisión continua de datos y metadatos (SDMX tools for the continuous transmission of data and metadata)	<a href="http://www.inegi.org.mx/inegi/contenidos/servicios/sdmx/default.aspx#/home">http://www.inegi.org.mx/inegi/contenidos/servicios/sdmx/default.aspx#/home</a>
Memorándum de entendimiento entre el INEGI, CONACYT y IIASA (Memorandum of Understanding between INEGI, CONACYT and IIASA)	Attached document.
Modelo Demografía Dinámica de México, 2016 (Dynamic Demographic Model of Mexico, 2016)	Attached document.
IIASA. Activities with Member Countries: Mexico.	<a href="http://www.iiasa.ac.at/web/home/about/nationalmembers/countryprofiles/InfoSheet-Mexico.pdf">http://www.iiasa.ac.at/web/home/about/nationalmembers/countryprofiles/InfoSheet-Mexico.pdf</a>
Project for the strengthening of Spatial Data Infrastructures (SDI) in the Caribbean. Summary of progress	<a href="http://www.un-ggim-americas.org/index.php/component/jdownloads/finish/71-reunion-paralela-un-ggim-americas-caribe/342-project-for-the-strengthening-of-spatial-data-infrastructures-sdi-in-the-caribbean?Itemid=0">http://www.un-ggim-americas.org/index.php/component/jdownloads/finish/71-reunion-paralela-un-ggim-americas-caribe/342-project-for-the-strengthening-of-spatial-data-infrastructures-sdi-in-the-caribbean?Itemid=0</a>

**Recommendation 12.** Adherents encourage exploring innovative methods as well as new and alternative data sources as inputs for official statistics, and in particular encourage statistical agencies to actively explore possibilities to use new data sources (including large datasets owned by the private sector), or to combine existing and new data sources as input for official statistics. At the same time, these opportunities are weighted against the limits of using modern information technologies and the need to maintain the quality of official statistics.

**Good practice 12.1:** National Statistical Authorities actively encourage and undertake research on new sources and new methods for official statistics, including in the private sector and through combination of existing sources.

**Good practice 12.2:** National Statistical Authorities develop methodological work and IT structure to ensure the quality of official statistics when new and alternative data sources are used as input.

**Good practice 12.3:** An explicit policy is formulated towards the use of “Big Data”<sup>25</sup> and private data that considers legal, technical and methodological implications.

**Good practice 12.4:** Implications for statistical infrastructure, statistical methods, and analytical tools are systematically assessed.

**Good practice 12.5:** There are explicit agreements between producers of official statistics and owners of private data; and legislation which regulate access to this information and deal with privacy issues.

**Good practice 12.6:** National Statistical Authorities participate in the development of capacities to process geospatial data.

<sup>25</sup> **Big data** are data of high volume, velocity, and variety that demand cost-effective, innovative forms of processing for enhanced insight and decision making (definition based on Gartner).

**Response from adherent on Recommendation 12:**

*Please enumerate the main strengths and weaknesses identified with regard to recommendation 12. Are other good practices relevant to this recommendation implemented in your country? What kind of actions do you consider important to improve the situation as regards recommendation 12 in your country?*

**Main strengths and other good practices**

The main strengths of the SNIEG concerning Recommendation 12 are presented in this section. First, the legal framework for research activities is described. Then, the main research and innovation activities carried out by the INEGI using alternative data sources and geospatial information are also described.

- 1. According to the legal framework, the SNIEG relies on INEGI for continuous research on issues of production and analysis of data, including the application of new methodologies and the national adaptation of recommendations and standards from international organizations.**

The SNIEG law establishes that INEGI will support permanent research on issues of production and analysis of data, through the following activities (Article 36):

- i. Conducting studies related to the System;
- ii. Conducting research on new methodologies for the production and dissemination of data;
- iii. Analyzing and adapting the recommendations issued by the international organizations for the production of statistical and geographical information;
- iv. Acting as technical consultant of the government agencies, and
- v. Developing permanent studies about Legislation in statistical and geographical matters in force in each state, as well as of comparative law.

To accomplish these tasks, INEGI has a unit for the promotion and development of research projects on official statistics, with the aim at strengthening the capacities of the System (INEGI Internal Regulations, Article 32).

**2. INEGI has an Annual Research Program approved by the Governing Board. ,**

The Research Program comprises in-house projects, projects carried out by invited researchers and those carried out jointly with external specialists. The following are some of the 2017 projects related to Recommendation 12:

- **Coordination of activities for the implementation of the new international recommendations promoted by the ILO in INEGI labor force statistics:** The objective is to update the official labor force survey (ENOE) in terms of the latest international recommendations and the expert groups in which INEGI participates.
- **Use of Big Data techniques for Twitter:** The objective is to develop exploratory studies of Big Data from Twitter with the corresponding analysis techniques.
- **Income estimates adjusted by various data sources:** The objective is to improve the quality of income adjustment of the income and expenditure households' surveys to National Accounts income estimates by incorporating expenditure data, as well as other variables available from various sources, including fiscal data.
- **Estimate of healthy life expectancy by state and by gender:** The objective is to estimate the healthy life expectancy of the population by state and gender for several years.
- **Productivity and efficiency in the allocation of productive factors in Mexico based on the Economic Censuses:** The objective is to produce indicators showing distortions and potential productivity gains for most of the economic activities of manufacturing, commerce and services, reported by the 2014 Economic Censuses.

The methodology and the results of these works can be consulted in the section of experimental statistics on the INEGI's website.<sup>26</sup>

### **3. INEGI collaborates with national and international institutions and specialists for the production of statistics with a focus on Big Data.**

The existing collaborative projects for the use of Big Data are:

- a. Collaboration agreement with academic and research institutions, whose objective is to look at the mental health of adolescents analyzing Twitter posts.
- b. As a complement to the studies on Subjective Well-being, big data collected from Twitter is used to determine the mood of Twitter users in Mexico. This research is conducted by a multidisciplinary working group with experts from INEGI and experts from academic institutions.
- c. Mood analysis of Twitter users at the state level with geo-referenced tweets. The results are reported as experimental statistics in the experimental statistics section on the website and are updated daily, 24 hours a day, 7 days a week.

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<sup>26</sup> <http://www.inegi.org.mx/inegi/contenidos/investigacion/experimentales/bienestar/default.aspx>

#### **4. INEGI promotes the development of capacities for use and processing of geospatial information.**

Among the activities developed by INEGI are:

- Training to personnel of the UE for the application of technical standards on the geographical scope.
- Training in the use and management of geomatic solutions.
- Providing workshops on data mining and topographic information.
- Participating in national and international fora , events and conventions for the exchange of experiences and the acquisition of knowledge on new trends in the management of geospatial information

Likewise, data processing and analysis of remote sensing images and spatial data will be done with Big Data techniques for the production of new spatial and statistical data, particularly in the field of natural resources.

#### **5. INEGI develops tools for the consultation of geospatial information such as the Digital Map of Mexico, the Gender Atlas and the MxSIG.**

##### Mexico Digital Map

It is a Geographical Information System displaying georeferenced data. It is the main gateway for users, to explore the official geospatial information that INEGI and other public entities provide to society. It features tools for browsing, searching, and visualizing the attributes of the geospatial information. The Digital Map displays contains several projects: topography, geodesy, natural resources, the National Geo-statistical Framework, the National Road Network, the business registry, the 2014 Economic Censuses, the 2010 Population and Housing Census, among others.

Currently, the Digital Map of Mexico integrates not only data from INEGI, but also from other sources such as the National Inventory of Renewable Energies of the Ministry of Energy, and the Functional Regionalization of Mexico of the Ministry of Agrarian, Territorial and Urban Development.

##### Gender Atlas

It is a Web application that gathers relevant indicators to make visible gender gaps, in particular those derived from the geospatial location of women and men. It shows maps with indicators on demography, social themes, work, time use, entrepreneurship, poverty, decision-making and



violence against women. This project is of a progressive nature and its update will be carried out according to the availability of new data.

### MxSIG

The INEGI made available open source platform called MxSIG to enhance the use of the Digital Map of Mexico. This platform integrates free software technologies and software development for the construction of Geographical Information Systems to combine geospatial and statistical data, as well as the access to thematic maps, and geospatial analysis. MxSIG is integrated with an open source license and a suite of preexisting free software components such as geographic database managers, map servers, among others.

Projects have been developed based on the new MxSIG Free Software platform, for the integration, distribution, and dissemination of geospatial and statistical information. In this way, users have several alternatives for use and analysis of data.

### **Other good practices**

- Since 2010, the journal “Reality, Data and Space: International Journal of Statistics and Geography”, has been published every four months, as a means to share knowledge and best practices and international recommendations in statistics and geography matter by linking with academic institutions (researchers, teachers and students) with those responsible for the statistical and geographical work of INEGI.
- In 2009, INEGI and the National Science and Technology Council established the "Sectorial Fund CONACYT-INEGI". The purpose of this trust is to grant support and financing for scientific research; technological innovation and development; scientific and technological diffusion, and the development of the infrastructure required in the production, analysis, dissemination, promotion and conservation of statistical and geographical information.
- In 2010, the Academic Advisory Council (CCA) was created. It that recommends and advises INEGI on matters related to human resources training, research, and production. This Council is chaired by the President of INEGI and includes representatives from 15 universities and academic institutions, the Ministry of Foreign Affairs, as well as the Vice-Presidents and the Directors General.

### **Challenges and Improvement Actions**

The second PESNIEG objective is concerned with the development of capacities for the new data ecosystem. Two of the general actions proposed are to establish strategic alliances with the academic, private and international institutions and organizations to enhance knowledge

sources and talent, and to innovate in non-conventional analysis methods and techniques for the use of data from different sources.

The main challenges facing this objective:

- The need for specialized statisticians in data science, technological infrastructure, and the need to improve the training in Big Data analysis.
- It is important to take advantage of the synergies among the various projects of INEGI to advance more efficiently in the incorporation of innovative methods and data sources.
- The convenience of having an explicit policy for the use of Big Data and private data that considers legal, technical and methodological aspects. Likewise, the feasibility of having explicit agreements between the producers of information and the owners of databases of the private sector, as well as legislation to regulate the access to this information and the privacy aspects.
- The challenge of keeping the personnel permanently updated with respect to the latest advances in statistics and geography.

### Supporting Evidence

Document	URL/Location
Convenio de colaboración que celebran el INEGI, el INPRFM, el CENTROGEO, el INFOTEC. (Collaboration agreement to look at the mental health of adolescents through Twitter posts.)	Attached document.
Estado de ánimo de los tuiteros en los Estados Unidos Mexicanos. Documento metodológico (Mood of the Twitter users in Mexico. Methodological document)	<a href="http://internet.contenidos.inegi.org.mx/contenidos/Productos/pr od_serv/contenidos/espanol/bvinegi/productos/nueva_estruc/702825077082.pdf">http://internet.contenidos.inegi.org.mx/contenidos/Productos/pr od_serv/contenidos/espanol/bvinegi/productos/nueva_estruc/702825077082.pdf</a>
Plataforma MxSIG (MxSIG platform)	<a href="http://www.inegi.org.mx/geo/contenidos/MxSIG/default.aspx?utm_source=sitioINEGI&amp;utm_medium=BANNER&amp;utm_content=BANNER_HOME&amp;utm_campaign=MxSIG">http://www.inegi.org.mx/geo/contenidos/MxSIG/default.aspx?utm_source=sitioINEGI&amp;utm_medium=BANNER&amp;utm_content=BANNER_HOME&amp;utm_campaign=MxSIG</a>
Atlas de Género (Gender Atlas)	<a href="http://gaia.inegi.org.mx/atlas_genero/">http://gaia.inegi.org.mx/atlas_genero/</a>
Mapa Digital de México (Digital Map of Mexico)	<a href="http://gaia.inegi.org.mx/mdm6/">http://gaia.inegi.org.mx/mdm6/</a>
Estadística sobre Estado de ánimo de los tuiteros en los Estados Unidos Mexicanos. (Statistics on the Mood of the Twitter users)	<a href="http://www.inegi.org.mx/inegi/contenidos/investigacion/Experimentales/animotuitero/default.aspx">http://www.inegi.org.mx/inegi/contenidos/investigacion/Experimentales/animotuitero/default.aspx</a>

in Mexico	
Reglas para la Integración y Funcionamiento del Consejo Consultivo Académico del Instituto Nacional de Estadística y Geografía (Academic Advisory Council Operating Rules)	<a href="http://cca.inegi.org.mx/downloads/Reglas%20de%20Integracion%20y%20Funcionamiento.pdf">http://cca.inegi.org.mx/downloads/Reglas%20de%20Integracion%20y%20Funcionamiento.pdf</a>
Reglas de operación del Fondo Sectorial CONACYT-INEGI (Sectorial Fund CONACYT-INEGI Operation Rules)	<a href="http://www.inegi.org.mx/inegi/conacyt/default.aspx? file=REGLAS_DE_OPERACION_DEF.pdf">http://www.inegi.org.mx/inegi/conacyt/default.aspx? file=REGLAS_DE_OPERACION_DEF.pdf</a>

## Acronyms

AMEXCID	Agency of International Cooperation for Development
ASF	Federal Supreme Audit Office
BANXICO	Central Bank
BID	Inter-American Development Bank
CCN	National Advisory Council
CCPCJ	United Nations Commission on Crime Prevention and Criminal Justice
CCU	User Advisory Council
CE	Executive Committee
CEEG	Global Center of Excellence in Gender Statistics
CMPE	Study Programs Mexican Classification
CNI	National Indicators Catalog
CONACYT	National Council of Science and Technology of Mexico
CSSP	Committee on Statistics and Statistical Policy
CTE	Technical Committee
DDI	Data Documentation Initiative
DENUE	National Establishments Statistical Directory
ECLAC	Economic Commission for Latin America and the Caribbean
ECoP	European Statistics Code of Practice
EIC 2015	Inter-Censal Survey 2015
ENCIG	National Survey on Government Quality
ENDIREH	National Survey on the Dynamics of Household Relationships
ENIGH	National Survey of Household Income and Expenditure
ENOE	National Survey of Occupation and Employment
ENVE	National Survey of Business Victimization
ENVIPE	National Survey of Victimization and Perception of Public Security
FMI	International Monetary Fund
GDP	Gross domestic product
HECRA	Administrative Records Quality Assessment Tool
IC	Key Indicators
ICAE	Short Term Indicators of Economic Activity
IIN	Statistical and Geographical Information of National Interest. The IIN refers to statistical and geographical information assessed by INEGI Governing Board as top priority based on its relevance and other quality criteria
ILO	International Labour Organization.

INMUJERES	National Institute of Women of Mexico
INV	National Housing Inventory
ISIC	International Standard Industrial Classification
IT	Information Technologies
JG	INEGI Governing Board
LA-KLEMS	Latin America KLEMS (K-capital, L-labor, E-energy, M-materials, and S-purchased services)
LSNIEG	Law of the National System of Statistical and Geographical Information
MGN	National Geostatistical Framework
MPEG	Statistical and Geographical Business Process Model
NAC	Statistical and Geographical Information Quality Assurance Norm
NAPCS	North American Product Classification System
NSO	National Statistical Office
NSS	National Statistical System
NTGEB	Technical Standard for Statistical Production (Census, Sampling Surveys and Administrative Registers)
OACNUDH	Office of the United Nations High Commissioner for Human Rights
OCDE	Organization for Economic Co-operation and Development
PAACI	Quality Assurance Annual Program
PAEG	Annual Work Program of Statistics and Geography
PAIINEGI	INEGI Annual Research Program
PAP	INEGI Annual Products Program
PAT	INEGI Annual Work Program
PESNIEG	SNIEG Strategic Program
PNEG	National Work Program of Statistics and Geography
REN	Statistical Information Registry
RENEM	Statistical Business Register
RIFCCN	National Advisory Council Operation Rules
RNIEG	Statistical and Geographic Information National Registry
RNM	National Metadata Network
SAPFIN	Budgeting and Financial Management System
SCIAN	North American Industry Classification System (NAICS)
SCNM	System of National Accounts
SHCP	Ministry of Finance and Public Credit
SIA	Integrated Administration System
SIEUE	Integrated System of Establishments Surveys

SINCO	National System of Occupations Classification
SNI	Information Subsystem
SNIDS	Demographic and Social Information Subsystem
SNIE	Economic Information Subsystem
SNIEG	National System of Statistical and Geographical Information
SNIGMA	Geographic and the Environment Information Subsystem
SNIGSPIJ	Government, Public Security and Justice Information Subsystem
SPC	INEGI Civil Service
SPI	Statistical and Geographical Data Access Public Service
UA	Administrative Areas
UE	Administrative areas of Government Agencies other than INEGI, that carry out activities related to the production, integration, conservation and dissemination of Statistical and Geographical Information
UNSD	United Nations Statistics Division