

## FUNDAMENTAL PRINCIPLES OF OFFICIAL STATISTICS AND THEIR EQUIVALENTS IN THE TURKISH STATISTICAL SYSTEM

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### **Abstract**

*Statistics serve as the backbone of informed decision-making, guiding policies, and shaping the direction of societies and economies worldwide. However, the landscape in which statistics operate is continually evolving, propelled by advancements in technology, changes in societal needs, and the emergence of new data sources.*

*The whole Statistics community around the world especially the national statistical institutions (NSI), had encountered two milestones in the last quarter of this century. The first one of these milestones without a doubt is, the introduction of technology into our lives very swiftly and faster than ever before. While the NSIs and even the private sector were having making a great effort to keep up with this speed of technology institutionally, we all faced the consequences of The Covid-19 pandemic which has affected the economic life and the labour market all over the world. The gained experience during the crisis showed that legislation, coordination and communication processes of official statistics have to be further developed so that relevant statistics can be provided reliably and in a timely manner also in situations of crisis. Thereby, the focus is on using opportunities of the digitalisation to further improve and modernise our processes and products.*

*This article examines the process of modernizing legislative regulations within the Turkish Statistical System and presents the steps taken thus far in the last 20 years in line with the “fundamental principles of official statistics”.*

### **I. INTRODUCTION**

Official statistics serve as a cornerstone of modern governance, providing vital insights into the socioeconomic landscape and informing evidence-based decision-making. At the heart of this statistical endeavor lie the fundamental principles universally recognized for ensuring the integrity, reliability, and relevance of statistical data. As Türkiye navigates its path toward progress and development, its Statistical System, anchored by the Turkish Statistical Institute (TurkStat), stands committed to upholding these principles. In this article, it is delved into the fundamental principles of official statistics and their equivalents within the Turkish context, illuminating the robust framework that underpins the production and dissemination of statistical information in Türkiye. Through a comparative lens, it is examined how TurkStat aligns with international standards, ensuring that statistical data not only reflect the realities of the Turkish society but also adhere to the highest standards of professionalism, impartiality, and transparency. This exploration serves to underscore the pivotal role of official statistics in shaping policies, fostering accountability, and empowering informed decision-making processes in Türkiye's dynamic landscape.

## II. TURKISH STATISTICAL SYSTEM THROUGH FUNDAMENTAL PRINCIPLES OF OFFICIAL STATISTICS

### A. Principle 1: Relevance, Impartiality and Equal Access

TurkStat, like its counterparts in other nations, collaborates with partners and stakeholders to establish a national statistical system that fulfills the requirements of Turkish citizens. The compilation and distribution of data are regulated by the Turkish Statistical Law No. 5429, enacted on November 10, 2005.

In terms of impartiality and accessibility, TurkStat ensures broad public access to its information holdings via its website. No entity, including governmental bodies, can access data before it is publicly released. Pursuant to the implementation of the program outlined in the Turkish Statistical Law No. 5429, no external instructions can be issued to the staff of TurkStat or other implementing units regarding data sources, selection of statistical methods and procedures, format, content, and timing of dissemination, or adherence to statistical confidentiality.

- "Article 4: Principles" of Türkiye's Statistics Law outlines the standards for enhancing the quality of official statistics. It mandates that statistics generated under the Official Statistics Programme adhere to principles such as reliability, consistency, impartiality, statistical confidentiality, timeliness, and transparency.
- "Article 12: Access to statistical results" of Türkiye's Statistics Law enforces the principle of equal access to statistical releases for all users simultaneously. This principle is further emphasized in the National Data release calendar within the Statistical Programme, ensuring fair and equitable access to statistical information.
- "Article 14: Use of Individual Data" of Türkiye's Statistics Law provides access to both household and business survey micro-data, allowing for comprehensive analysis and research.
- "Article 18: Duties and authorities of the Turkish Statistical Institute" of Türkiye's Statistics Law delineates the specific responsibilities and powers of the Turkish Statistical Institute in detail, clarifying its role in the generation and dissemination of statistical data.

The Statistical Council was established to address the needs of official statistics, analyze proposals and opinions for future endeavors, and offer recommendations to relevant stakeholders. It contributes to the development and implementation of official statistics by formulating the Official Statistics Programme (OSP).

- ✓ **Regulation on Foundation of Data Quality Control Board and its Working Procedure and Principles**
- ✓ **Directive on Principles and Procedures Related to Correction of Errors of the Statistical Data and Information Published by Turkish Statistical Institute**

The National Data Release Calendar, established under the framework of the Statistics Law of Türkiye (Law #5429), has been collaboratively developed by the Turkish Statistical Institute and other relevant institutions since March 1st, 2007. This calendar is regularly updated each year to ensure the timely and efficient dissemination of official statistics by all institutions participating in the Official Statistics Programme. By announcing publication dates and times in advance, the National Data Release Calendar facilitates prompt access to official statistics for decision makers and users.

The Official Statistics Programme, mandated by the Statistics Law of Türkiye (Law #5429), is formulated for a five-year period to establish fundamental principles and standards governing the production and dissemination of official statistics. Its primary objective is to generate reliable, timely, transparent, and impartial data essential at both national and international levels. The Turkish Statistics System embarked on a programmed period with the initiation of The Official Statistics Programme 2007-2011, and the most recent programme covers the period between 2022 and 2026.

In accordance with the Public Financial Management and Control Law (Law #5018), all public administrations engage in cooperative efforts to develop strategic plans. These plans aim to define

missions and visions for the future within the context of development plans, programs, relevant legislation, and adopted basic principles. They also establish strategic goals and measurable objectives, allowing for the assessment of performance based on predetermined indicators. The entire process is subject to monitoring and evaluation.

- ✓ Databases are accessible at TurkStat web site in a flexible manner that a user can create own tables on different topics.

## **B. PRINCIPLE 2: PROFESSION STANDARDS, SCIENTIFIC PRINCIPLES AND PROFESSIONAL ETHICS**

TurkStat acknowledges that trust in the accuracy and reliability of its data is crucial for maintaining its credibility as Türkiye's national statistical institute. The institute consistently integrates quality into all its programs and outputs. The reliability of its official statistics is rooted in the application of robust scientific methodologies, which are continuously adapted to reflect evolving client needs, budget constraints, changes in the reality being measured, and the ability of respondents to provide source data.

Establishing and upholding public trust necessitates not only transparency in methodology, adherence to professional and ethical standards, and objectivity in reporting, but also ensuring that all statistical decisions are grounded in scientific principles. Key strategies employed include rigorous recruitment processes, professional development initiatives across all core professional domains, fostering a positive and dynamic work environment, implementing initiatives to encourage creativity and innovation, especially at the grassroots level, and active participation in national and international professional communities dedicated to official statistics.

TurkStat remains committed to maintaining a professional, motivated, and innovative workforce, with a strong emphasis on workforce development being a distinctive feature of the institute. Regarding data quality, the agency has established and implemented a set of governing instruments to guide the various statistical processes within the organization, ensuring the adoption of the most suitable methods and procedures. At the apex, the institute has devised a Quality Assurance Framework, furnishing analysts with a definition of data quality and standards against which it can be evaluated.

The Ethics Commission of TurkStat comprises the Head, Vice President linked to the Personnel Department, First Legal Adviser, Head of Personnel Department, Head of Strategy Development Department, and Director of the Training and Research Center.

## **C. PRINCIPLE 3: ACCOUNTABILITY AND TRANSPARENCY**

TurkStat consistently endeavors to introduce and uphold methodological enhancements across concepts, methodologies, and procedures to enhance official statistics. It bears the responsibility of informing users about the concepts and methodologies employed in gathering, processing, and analyzing its data, along with their accuracy and any other factors influencing their quality.

- ✓ **Article 4-** In order to improve the quality of official statistics, statistics produced within the scope of Official Statistics Programme shall be prepared and implemented in accordance with the principles of reliability, consistency, impartiality, statistical confidentiality, timeliness and transparency.

The fundamental principles include ensuring the accuracy of official statistics, providing data to all users simultaneously and impartially, adhering to confidentiality principles, and safeguarding the public's right to access information.

All pertinent information and methodologies utilized in producing official statistics must be disclosed to facilitate the assessment of their quality and adherence to principles. Every institution, organization, and their respective personnel involved in implementing the Program are obligated to adhere to the provisions of this law or any subsequent regulations issued based on it.

The Classification Server, accessible via the TurkStat website, is available for use and undergoes regular updates to facilitate the implementation of classifications required by public institutions, organizations, and other users. Its objectives include enabling the utilization of a single classification for each domain, ensuring alignment between national classifications and those utilized by European Union countries and international standards.

#### **D. PRINCIPLE 4: PREVENTION OF MISUSE**

Statistics can be subject to diverse interpretations and may be utilized for various purposes, including advertising and political agendas. Consequently, it is crucial for National Statistical Offices (NSOs) to uphold trust and credibility by addressing any blatant misuses or misinterpretations of public data.

TurkStat undertakes initiatives to educate users, including the media, on proper data utilization and proactively corrects misinterpretations of its statistics and provides explanatory materials in accordance with the guidelines outlined in the "Directive on Declaration and Evaluation of Complaints regarding Error, Fraud, and Corruption related to the Administrative Operations and Actions of the Turkish Statistical Institute." Moreover, TurkStat monitors media coverage of its data and issues corrections when necessary

- ✓ **"The Directive on Principles and Procedures Related to the Misuse and Misinterpretation of Official Statistics.**

#### **E. PRINCIPLE 5: SOURCES OF OFFICIAL STATISTICS**

The Statistical Law grants significant authority to TurkStat to collect data for statistical purposes through surveys of Turkish businesses and households. Participation in TurkStat's surveys is compulsory by default under the law, and refusal to participate could lead to legal penalties.

Furthermore, TurkStat is empowered to access all administrative records, including tax data, customs declarations, and vital records such as birth and death records. These records serve as crucial sources of statistical information, reducing the burden on businesses and individuals who would otherwise need to respond to surveys. Whenever feasible, TurkStat utilizes administrative data to streamline data collection processes.

- Article 3 of the Statistics Law, titled "Official Statistics Programme," establishes the framework for the production of official statistics required at both national and international levels. Censuses and surveys are conducted within the framework of this program.
- Article 9 of the law addresses access to administrative data, mandating that institutions and organizations submit or provide access to records and data files pertaining to their areas of operation to TurkStat free of charge, within specified timeframes, to be utilized for the production of official statistics.
- Implementation principles outlined in Article 5 of the law define the objectives, coverage, methods, frequency, work plan, and dissemination principles of the Official Statistics Programme. Additionally, responsible institutions and organizations are tasked with implementing and coordinating relevant statistical work as outlined in the program.
- Article 10 of the law, concerning "National Register Systems," requires institutions and organizations to establish, update, and provide access to TurkStat their national register systems related to their areas of operation in accordance with standards defined by TurkStat. Approval from TurkStat is necessary for any legislative arrangements in this domain.

#### **F. PRINCIPLE 6: CONFIDENTIALITY**

The Statistical Law of November 2005, explicitly outlines provisions regarding confidentiality principles. While the Turkish Statistical Institute (TurkStat) is granted substantial authority to collect and access information, this power is balanced by a strict guarantee of confidentiality. All TurkStat employees are

individually responsible for maintaining statistical confidentiality, and even courts cannot access individually identifiable statistical information without the informed consent of respondents. New TurkStat employees are required to take an oath of secrecy before commencing work, and all staff must sign statements confirming their adherence to confidentiality. Additionally, all staff must comply with the provisions of the Regulation on Principles and Application Procedures of Ethical Conduct for Public Officials in the performance of their duties.

According to Article 13 of the Statistical Law, confidential data can only be accessed by those assigned to the production of official statistics to the extent necessary for performing their duties properly. Measures are also outlined in the Regulation on Procedure and Principles of Data Confidentiality and Confidential Data Security in Official Statistics to safeguard confidential data. Data appearing in table format obtained by consolidating individual data is considered confidential if the number of statistical units in the relevant box is less than three, or if one or two statistical units dominate even if the total number is three or more.

Confidential data compiled, processed, and stored for official statistics production cannot be disclosed to any administrative, judicial, or military authority or individual, nor can it be used for purposes other than statistics or as evidence. Personnel responsible for compiling and processing such data must adhere to this restriction, even after leaving their positions. Institutions and organizations responsible for producing official statistics must take all necessary measures to prevent unauthorized access, use, or disclosure of confidential data.

Confidentiality ceases when a statistical unit provides written approval for the disclosure of its confidential data. If published, confidential data must be combined with other data to prevent direct or indirect identification. Furthermore, individual data may be provided with the written permission of the Presidency after obscuring any identifying information. However, those authorized to use individual data are prohibited from sharing it with third parties. Principles and procedures related to data confidentiality and security are regulated through statutes aligned with national and international standards and with input from relevant institutions and organizations

- ✓ **Regulation About Procedures and Principles of Data Privacy and Confidential Data Security of Official Statistics 20/06/2006 and numbered 26204**
- ✓ **Personal Data Protection Law, Law Number 6698, Date of Ratification 24.03.2016**

## **G. PRINCIPLE 7: LEGISLATION**

Effective legislation is essential for the efficient functioning of a national statistical system. TurkStat operates primarily under the framework provided by the Statistical Law, which delineates the agency's mandate, defines its authorities, and establishes the regulations governing its operations. The law on statistics, all relevant regulations and directives are published on the website of Turkstat.

TurkStat also bears the responsibility of informing users about data quality. This entails implementing consistent measures to identify, document, authorize, and rectify errors and unplanned revisions occurring after data release, and subsequently reporting on these actions.

## **H. PRINCIPLE 8: NATIONAL COORDINATION**

The Statistical Law grants the Turkish Statistical Institute the authority and mandates the agency to coordinate and lead the national statistical system.

- According to Article 8 of the law, statistical units are required to submit all information or data to the Presidency completely, accurately, and free of charge, adhering to the specified form, period, and standards set by the Presidency.
- Similarly, Article 9 stipulates that institutions and organizations must submit or make available to the Presidency all records, data files, maps, and remote sensing data compiled, processed,

or stored within their areas of operation, free of charge and within the specified timeframe, for use in the production of official statistics.

- Article 20 establishes the Statistics Council, which advises on the development and implementation of the Official Statistics Programme and on the production and utilization of official statistics. The Council also identifies and evaluates areas where official statistics are needed, providing opinions and suggestions for future work.

The President and Vice-Presidents of the Turkish Statistical Institute are natural members of the Council, which convenes at least once a year. The Council is composed of the following: Ministries, Council of Higher Education, Strategy and Budget Directorate, Central Bank of Türkiye Republic, Banking Regulation and Supervision Agency, Social Security Institution, President of revenue management, Personal Data Protection Authority, Union of Chambers and Commodity Exchanges of Türkiye, Union of Chambers of Independent Accountants and Certified Public Accountants of Türkiye, Tax Council, Turkish Journalists Association, and the non-governmental organisation operating in the field of statistics with the largest number of members.

The Official Statistical Programme(OSP), provides comprehensive information on definitions, methodologies, content, classifications, and publication schedules of data, along with specifying the institutions responsible for data compilation and publication. The OSP serves as the framework for producing official statistics required at both national and international levels, including conducting censuses and surveys. Official statistics are produced and released by TurkStat and other designated institutions and organizations outlined in the Programme. The roles and responsibilities for data compilation, evaluation, and dissemination are clearly outlined within the Programme. TurkStat, as the coordinating body for official statistics production and publication, is authorized to publish and disseminate data compiled by relevant institutions and organizations, which are required to timely submit compiled data to TurkStat upon request. Maintaining the confidentiality of submitted data is ensured by adhering to confidentiality principles outlined in other legislative arrangements.

The Turkish Statistical System demonstrates effective coordination through various mechanisms, including the establishment of Official Statistics Programme working groups at the expert level, in addition to the high-level Statistical Council. There are also almost 40 subject-matter working groups within the national statistical system. These working groups focus on enhancing data quality, ensuring compliance with international standards, and addressing any gaps in data transmitted to international organizations. While this coordination mechanism is governed by secondary legislation rather than the Law, it effectively facilitates collaboration among stakeholders within the National Statistical System of Türkiye.

## **I. PRINCIPLE 9: USE OF INTERNATIONAL STANDARDS**

Comparability is a vital aspect of data quality, enabling meaningful comparisons between countries. TurkStat prioritizes the application of international standards and adapts them to national contexts across various statistical domains, including national accounting, census and demographic statistics, social statistics, and environmental statistics. To advance its work, TurkStat continually updates itself at the organizational level and in statistical methodology and applications. It fosters guidance for statistical studies by sharing its knowledge and experiences with national and international institutions.

International standard classifications play a crucial role in ensuring the comparability of statistical data both nationally and internationally. Recognizing this, TurkStat emphasizes data harmonization and adheres to international standards and guidelines, as outlined in Article 12 of the Statistics Law.

TurkStat, serving as the coordinator of the statistical system, launched the Classification Server in 2007 to enhance data quality and comparability. This platform hosts translations and adaptations of international classifications, as well as national classifications and corresponding tables and

dictionaries. Collaborating with stakeholders, TurkStat develops national classifications to meet domestic requirements. Moreover, TurkStat supports other public institutions and bodies that maintain administrative records and produce statistics. It organizes informative meetings within Official Statistics Working Groups to promote the use of robust methodologies. Additionally, a strategic plan was developed to bolster the methodologies of stakeholder institutions.

#### J. PRINCIPLE 10: INTERNATIONAL COOPERATION

In line with our commitment to global collaboration, TurkStat continues to foster strong partnerships with international organizations and statistical agencies worldwide. TurkStat actively contributes to the global statistical community by sharing knowledge, expertise, and best practices, and plays an active role with other national statistical agencies and international statistical organizations. The Institute shares statistical technical expertise and best practices, especially from the beginning of 90's on.

Through partnerships with agencies like UNESCAP, UNECE, Eurostat and EFTA, TurkStat aims to produce high-quality data that aligns with international standards. By collaborating with the UN, especially on initiatives like the Sustainable Development Goals (SDGs), Türkiye seeks to address development challenges and promote inclusive growth. The cooperation provide opportunities to exchange ideas and enhance cooperation, ultimately working together towards a more sustainable and equitable future.

- ✓ **Article 51-** Within the framework of the general provisions, the Presidency may establish contacts and enter into cooperation with the similar organisations in other countries and relevant units in the international or supranational organisations to ensure the production of statistics through best possible methods, exchange of data and publications, training, joint project development and implementation.

#### III. CONCLUSION

As we navigate the complexities of the modern world, the importance of modernizing statistical legislation cannot be overstated. By updating our legal frameworks to reflect current trends, technologies, and international standards, we can ensure that our statistical systems remain robust, transparent, and responsive to evolving needs. Modernized legislation provides the necessary foundation for enhancing data quality, safeguarding privacy, and fostering greater trust in official statistics. It empowers statistical agencies to adapt to changing environments, innovate in data collection methodologies, and effectively address emerging challenges. Therefore, investing in the modernization of statistical legislation is essential for building resilient, future-ready statistical systems that can effectively support evidence-based policymaking and sustainable development.

#### IV. REFERENCE:

European Union (1985). Chapters of the acquis (Schengen Agreement).

Eurostat (2017). European Statistics Code of Practice.

United Nations (2014). Fundamental Principles of National Official Statistics

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