Sources of primary data for official statistics. What statistics will we collect?

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Department of Statistics and Data Analysis

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Sources of primary data that form the basis of modern statistical observations:

- statistical reporting;

- surveys of respondents by interviewers;

- registration of facts without interviewing respondents;

- accounting, tax and other departmental reporting;

- state registers, registries and other administrative records;

- archival data and results of statistical observations conducted in the past;

- international and foreign national databases and statistical publications;

- big data.

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The United Nations

The General Assembly

FUNDAMENTAL PRINCIPLES OF

OFFICIAL STATISTICS

Principle 5 Sources of official statistics

Data for statistical purposes can be taken from all types of sources, whether statistical surveys or administrative files. Statistical agencies should select a source taking into account considerations of quality, efficiency, costs and the burden on respondents.

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Purpose of activity of the National Statistical System (NSS) in the field of official statistics:

meeting the needs of civil society for official statistical data on demographic, social, economic and environmental phenomena and processes.

Users need relevant information about social phenomena: timely, complete, understandable, true, consistent and highly detailed.

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Modern requirements for data collected for statistical purposes:

- assessment of events at a qualitative level;

- connecting the characteristics of the respondent's subjective perception to quantitative data events;

- inclusion of the respondent in the process of recording events and evaluating them;

- use of predictive estimates of the development of the studied events;

- expanding the practice of collecting information about an event from different points of view;

- improving the efficiency of estimates by shifting the date of registration of the event to the middle of the reporting period;

- expansion of the set of criteria for classification of events and units of statistical observation
by using multidimensional classifications and combining data from different observations;

- collection of information aimed at describing the internal structure of the observation unit and characterizing its constituent elements.

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Restrictions on the collection of statistical data:

- limited financial resources;
- unwill
- ingness of respondents (and outright refusal) to participate in statistical observations;
- provision of false and fragmented information by respondents;
- backwardness of the technological basis of the NSS computing system;
- limited size of sampled populations;
- limitations of statistical questionnaires, which do not provide detailed information;
- need to ensure confidentiality requirements;
- departmental approach to the formation of administrative statistics and ensuring access to them;
- and others.

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The *transformation of the primary statistical data collection system* involves:

- the maximum possible rejection of data collection by organizing classical statistical observations;

- use of information in statistics that is reflected in administrative records, that is, they were verified during registration;

- organization of collecting only those statistical data directly from respondents, which cannot be obtained from administrative statistics and other sources.

RESULT

The NSS is not burdensome for respondents (and for the budget):

The respondent does not spend time on participating in statistical observations, and the budget does not spend resources on collecting already existing information.

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Use of administrative statistics and other information, including Big Data and other information collected by commercial and non-commercial entities contribute to solving the following problems:

- unwillingness of respondents (and outright refusal) to participate in statistical observations;
- provision of false and fragmentary information by respondents;
- limited size of sampled populations;
- limited statistical questionnaires that do not provide detailed information.

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Limited financial resources remain a major challenge.

Transition to administrative statistics and other non-traditional primary data sources will not reduce the need for funding. The needs of the NSS will change, requiring new areas of expenditure: fewer resources to collect data from respondents, more resources to obtain administrative statistics and to use databases and other information created by for-profit and non-profit non-governmental entities.

The backwardness of the technological base of the NSS computing system will be even more acute, since large government structures that create large amounts of data (tax, customs and migration authorities, treasury, social foundations, etc.) have modern data collection, processing and storage systems. Databases are created by large commercial structures (banks, information and telecommunications, insurance and transport companies, commodity and price aggregators) operating on an advanced technological base.

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The departmental approach to the formation of administrative statistics is manifested in:

- refusal to use and/or incomplete use, when creating state information resources of national classifiers, replacing them with departmental reference books;

- closing access for NSS to departmental databases, registers and registries created in accordance with the law, including refusal for reasons of confidentiality of this data, maintaining tax secrecy, etc.;

- practice of collecting information that duplicates statistical and accounting statements, as well as information not related to implementation of control and supervisory or other functions by the agency to manage a certain field of activity.

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Breadth of the subject of the national statistical **program**
provided through:

- interaction with state authorities, those who exercise leadership in a certain field of activity, in terms of organizing the presentation of departmental statistics and information from state registers and registries to the NSS;

- expanding the scope of sample statistical surveys of the population on issues of living standards and conditions;

- use of information collected by various civil society institutions and government organizations;

- inclusion of source information in statistical estimates, generating Big Data.

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The implementation of a multidimensional approach in statistics requires the consolidation of primary data and their storage at the level of statistical observation units (individual, family, household, local unit of activity, enterprise, settlement, municipality, administrative-territorial unit).
Availability in statistical repositories of data on various properties (characteristics) of individual unit of statistical observation provides unlimited possibilities for using multidimensional approach in statistical measurements.
The availability of data on individual unit of statistical observation allows to extend the analysis on the basis of dynamic series,
building them on the same aggregates of statistical units, and provides the application of the method of assessment of changes in the behavior of groups of units at different stages of life cycle.

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Complex **multidimensional** characteristics of the observation unit (enterprise, institution, household, family), the individual attributes of which are aggregated characteristics or their combinations, have become in demand.

An example is the assessment of multidimensional poverty based on the Alkire-Foster approach, implemented by UNDP with the participation of the Oxford Poverty and Human Development Initiative (Oxford Poverty and Human Development Initiative – OPHI). The essence of the method consists in comparing several characteristics of a person with threshold values – criteria of poverty. A household's poverty status is established by integrating the characteristics of the individuals living in it, not just the household as a whole.

The multidimensional approach makes it possible to describe a single enterprise as a set of local units or institutions, that is, to profile it and expand the set of indicators of the demography of enterprises by connecting additional criteria.

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Detailing the results of statistical observations (product, industry, type, activity, social, age, etc. groups of the population, territorial section, etc.) requires solving the problem of "Small Statistical Areas". The essence of this problem is related to the limited capacity of sample-based statistical observations to provide sufficient representativeness of estimates for small parts of the surveyed population, and to maintain confidentiality of information due to the high probability of direct or indirect disclosure of the respondent. This requirement has become especially relevant in connection with the globalization of markets. But it is precisely today, in the context of digitalization and the collection of data from respondents in electronic form, that conditions have been created for the formation of official statistics with a high degree of disaggregation. Electronic collection of primary data is not related to the restriction of items in the statistical reporting form. This allows you to get information about production, stocks, and sales by a disaggregated nomenclature.

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Users have developed a steady demand for **spatial statistics** that provide statistical information describing various levels of geographical classification of economic phenomena. Differentiation of economic development of territories within countries, differences in living conditions, and the requirements of budget legislation form the demand for such data from government organizations and businesses.

Many countries solve this problem by generating statistics at the municipal level. In some countries, information is being developed on statistical territorial associations, for example, Statistical Metropolitan Areas and Statistical Micropolitan Areas in the United States, or by regions formed in accordance with Nomenclature Territorial Units for Statistical Pupuses (NUTS) in the EU. There is an experience of official statistics on cities.

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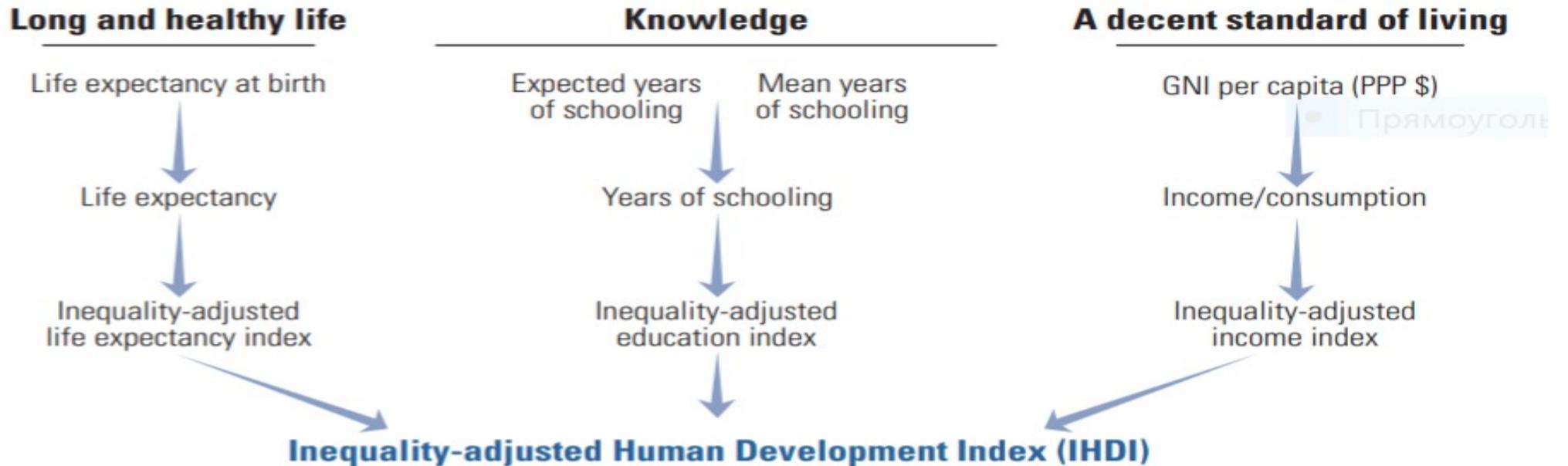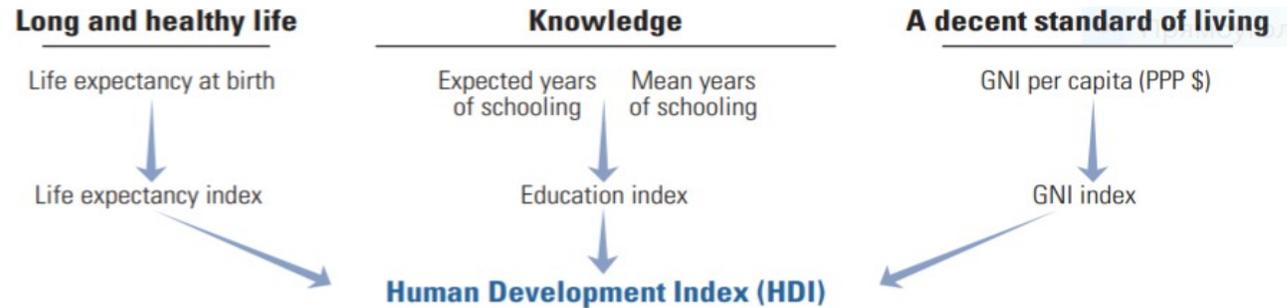Tashkent **2-4** of October, **2024**

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We are observing a trend towards active and expanding applications in the analysis of **composite indicators**. Users want to evaluate the phenomenon by one indicator. Such indicators are used to measure business activity, the competitive environment, economic development, and material and intangible well-being. All this means that statistical observations should be aimed at measuring the components of the composite index.
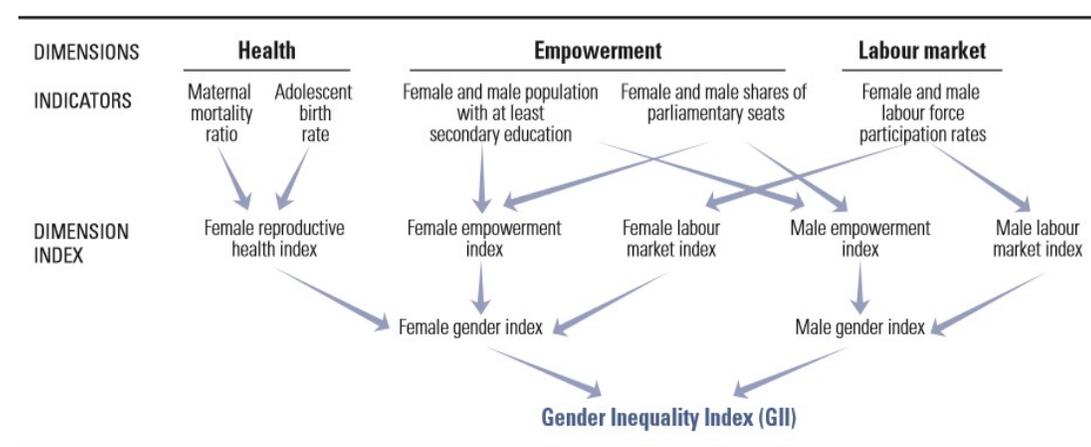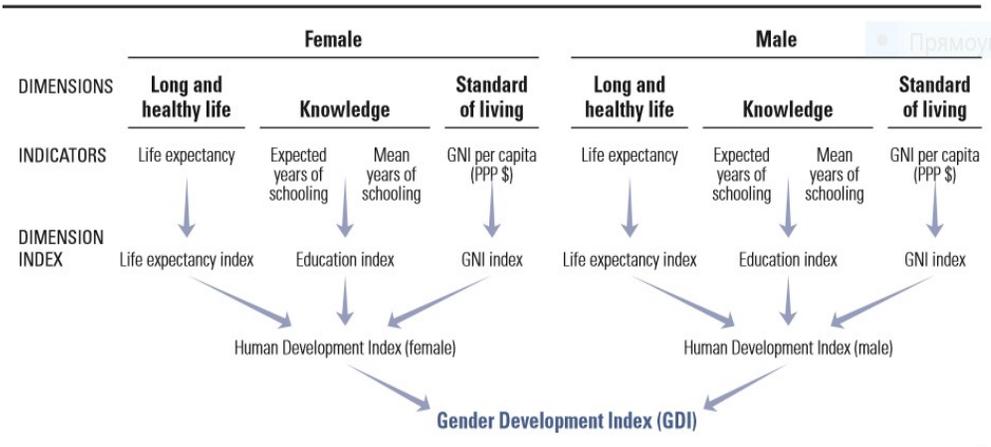
EXAMPLE. The most well-known indices characterizing the subjective well-being of people are given below:

1. Better Life Index (OECD) – Better Life Initiative, Index of Happiness, Index of Well-being

2. Legatum Prosperity Index

3. Gallup-Healthways Global Well-Being Index

4. The Quality of Life Index - (The Economist Intelligence Unit)

5. World Happiness Index.

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Transformation of indeces, included in the family of **human development** indices published by UNDP, through the inclusion of new indicators.

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The initial Index comprehensively assessed human development through a combination of indicators characterizing long life, development opportunities and financial situation. Today, gender-based inequality indicators are included in the calculation.

To measure poverty today, international organizations use multidimensional methods based on the use of several deprivations and indicators characterizing them.

The main players in this area are UNDP, the World Bank and UNICEF (in terms of child poverty). The criteria and indicators used by different international organizations to assess poverty differ. Its approach is implemented in the EU, where poverty is assessed by the indicator of the risk of poverty and social exclusion (At Risk of Poverty and Social Exclusion – AROPE).

Measurement areas included in the calculations of multidimensional poverty indicators (number of indicators)	Number of indicators			
	UNDP	The World Bank	UNICEF	EU
Health, nutrition	2		3	1
Education, studies	2	2	2	
Conditions/ quality of life	6			
Monetary measure of welfare		1		1
Availability of basic utilities		3		
Recreation, leisure, Internet			7	4
Clothes, shoes			2	2
Low level of employment				1
Lack of reliable funds to pay for goods and services that ensure an accepted standard of living				7

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Prospects for the development of the source basis of static and total observations

- gradual transition to the use in statistics of administrative records, registers, registries, tax, accounting and financial statements;

 - limitation of classical statistical observations to the collection of data that are not recorded by the authorities;

- expansion of statistical observation programs by collecting facts from respondents' words and opinions;

- use of database as a source of primary data for official statistics.

THANK YOU FOR YOUR ATTENTION!

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