

# Quality report

The main indicators of income differentiation in the Republic of Kazakhstan

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S.1 Contact details

# S.1.1 Organization

Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan)

S.1.2 Structural subdivision

Office of Labor Statistics and Living Standards

S.1.3 Name of the contact person

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#### S.2 Introduction-Relevance

The standard of living as a subject of socio-economic statistics characterizes the degree of satisfaction of various human needs for goods and services. There is no unambiguous definition of the standard of living in the economic literature, however, the standard of living can be defined as a socio-economic category that characterizes the well-being of the population, human consumption of material, cultural, social benefits and services in conjunction with the conditions that ensure the possibility of meeting real needs. The backbone of the concept of the standard of living is a variety of human needs that arise and are realized in the sphere of consumption.

- S.3 Updating metadata
- S.3.1 Latest confirmation of updated metadata
- S.3.2 Latest placement of metadata
- S.3.3 Latest metadata update
- S.4 Presentation of statistical information
- S.4.1 Data description

The survey includes households living in all types of dwellings, with the exception of those living in shared communal apartments, hostels, boarding houses for the elderly and disabled, orphanages, prisons, hotels, religious communities and other similar dwellings. Data on the size and composition of households, the distribution of household members by decile groups, the share of the population with incomes below the subsistence level and the cost of the food basket.

## S.4.2 Classification system

The nomenclature of commodity items for the Classifier of Individual Consumption by Purpose (COICOP) is posted on the website of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan www.stat.gov.kz in the "Classifiers" section.

# S.4.3 Sectoral coverage

The standard of living of the population and the distribution of income among different groups of the population.

# S.4.4 Statistical concepts and definitions

- 1) The type of observation is selective.
- 2) The circle of respondents 12,000 households are participating in the survey.
- 3) Data collection toolkit statistical forms of national statistical observation "Control card of the composition of the household", "Diary of daily expenses" and "Quarterly questionnaire on household expenditures and income". Statistical forms codes 646103007, 645103004 and 644103003 indices D 008, D 004 and D 003 annual frequency with quarterly updating.

The statistical form was revised and registered by the order of the Chairman of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan and is available on the official website of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan www.stat. gov.kz in the section "For respondents".

## S.4.5 Statistical object

The population's income used for consumption includes consumer expenditures (excluding capital investments in production activities and accumulation) and the value (in monetary terms) of self-produced products consumed in kind and transfers.

## S.4.6 General population (principle of selection of survey units)

The general population includes households living in all types of dwellings, with the exception of those living in shared communal apartments, dormitories, boarding houses for the elderly and disabled, orphanages, prisons, hotels, religious communities and other similar dwellings. The final sampling unit is defined as the household, which is also the survey unit. The sample population of households is formed by the method of two-stage probabilistic (random) sampling using the procedures of stratification and random selection at each stage of sampling. The stratification procedure is aimed at forming a representative sample of households that adequately reflects the territorial characteristics of population stratification.

# S.4.7 Territorial coverage

Republic of Kazakhstan (14 regions and cities of republican significance, the capital)

S.4.8 Time coverage

Since 2001

S.4.9 Base period

Corresponds to the corresponding period of the previous year

S.5 Unit of measurement

Human

S.6 Reporting period

quarter

S.7 Legal basis

## S.7.1 Legal framework

- 1. Law of the Republic of Kazakhstan dated March 19, 2010 No. 257-IV "On state statistics".
- 2. Rules for the provision of primary statistical data by respondents, approved by order of the Chairman of the Agency of the Republic of Kazakhstan on statistics dated July 9, 2010 No. 173.
- 3. Rules for the submission of administrative data by administrative sources on a gratuitous basis, approved by the Acting order of the Chairman of the Agency of the Republic of Kazakhstan on statistics dated July 14, 2010 No. 183.
- 4. The plan of statistical work, approved in accordance with the established legislation of the Republic of Kazakhstan by the Order of the Minister of National Economy of the Republic of Kazakhstan.

- 5. Schedule for the dissemination of official statistical information, approved by the Order of the Chairman of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan.
- 6. Rules for the provision of statistical information on a gratuitous basis that is not provided for by the schedule for the dissemination of official statistical information and developed on the basis of primary statistical data submitted by respondents in accordance with the schedule for submitting primary statistical data by respondents, approved by order of the Chairman of the Agency of the Republic of Kazakhstan on Statistics of May 20, 2010 No. 113.
- 7. Rules for the presentation and use for scientific purposes of databases in a de-identified form, approved by order of the Chairman of the Agency of the Republic of Kazakhstan on statistics dated July 2, 2010 No. 168. Registered with the Ministry of Justice of the Republic of Kazakhstan on August 13, 2010 No. 6388.
- 8. The interviewing methodology for a sample survey of households to assess the standard of living, approved by the order of the Chairman of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan dated November 17, 2015 No. 179 (registered in the Register of State Registration of Regulatory Legal Acts for No. 12412 dated December 14, 2015);
- 9. Methodology for constructing a sample of households for the survey of living standards, approved by the order of the Chairman of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan dated December 14, 2015 No. 202;
- 10. The methodology for organizing a household survey to assess the standard of living, approved by the order of the Chairman of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan dated December 15, 2015 No. 208 (registered in the Register of State Registration of Regulatory Legal Acts for No. 12871 dated January 15, 2016).

The entire methodology is posted on the website of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan www.stat.gov.kz in the section Living standards of the population. The statistical tools have been agreed with all structural divisions of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan.

## S.8 Privacy and data protection

## S.8.1 Privacy Policy

- 1. Article 8 of the Law of the Republic of Kazakhstan dated March 19, 2010 "On State Statistics", in accordance with which a guarantee of confidentiality and protection of the submitted data by respondents is ensured.
- 2. Article 28 of the Entrepreneurial Code of the Republic of Kazakhstan No. 183 dated October 29, 2015 ensures the protection of information constituting a commercial secret.

3.Information security policy (hereinafter - the Policy) approved by the Order of the Chairman of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan dated October 31, 2016 No. 252 defines the goals, objectives, guidelines and practices in the field of information security. Security Committee. The main goal of the Policy is to ensure the availability of official statistical information, confidentiality of information stored and processed on the computer equipment of the Committee under the conditions of its integrity and authenticity.

# S.8.2 Конфиденциальность-обращение с данными

Rules for the presentation and use for scientific purposes of databases in a deidentified form, approved by order of the Chairman of the Agency of the Republic of Kazakhstan on Statistics dated July 2, 2010 No. 168. Registered with the Ministry of Justice of the Republic of Kazakhstan on August 13, 2010 No. 6388.

## S.9 Publication Policy

#### S.9.1 Publication Calendar

Clause 1, Clause 2 of Article 26 of the Law of the Republic of Kazakhstan "On State Statistics" dated March 19, 2010 No. 257.

The schedule for the dissemination of official statistical information is posted on the website of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan www.stat.gov.kz in the section "Home" // "Basic documents".

# S.9.2 Access to the Graph

The schedule for the dissemination of official statistical information is posted on the website of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan www.stat.gov.kz in the section "Home" // "Basic documents".

#### S.9.3 User access

On the website of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan www.stat.gov.kz Home - Official statistics - By industry - Living standards statistics - Bulletins

# S.10 Frequency of propagation

quarter

## S.11 Dissemination format, accessibility and clarity

## S.11.1 News publications

Press release: On the differentiation of incomes of the population in the Republic of Kazakhstan (annually, April)

## S.11.2 Publications

On the website of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan www.stat.gov.kz in the section Home - Official statistics - By industry - Living standards statistics. The following publication is placed in electronic form:

1) quarterly, annual statistical bulletin "Main indicators of income differentiation of the population"; 7

- 3) 3) once a year the statistical collection "Living standards of the population in Kazakhstan";
- 4) 4) quarterly, annually operational information in the form of spreadsheets

# S.11.3 Databases in on-line mode

Information-analytical system "Taldau" in the section Living standards statistics

## S.11.3.1 AC1. Data tables-consultation

Not implemented

#### S.11.4 Microdata access

Rules for the presentation and use for scientific purposes of databases in a deidentified form, approved by order of the Chairman of the Agency of the Republic of Kazakhstan on Statistics dated July 2, 2010 No. 168. Registered with the Ministry of Justice of the Republic of Kazakhstan on August 13, 2010 No. 6388.

#### S.11.5 Other

Articles are periodically published in the quarterly scientific and information journal "Economics and Statistics".

S.11.5.1 AC2. Metadata consultation

Not implemented

S.12 Availability of Documentation

S.12.1 Methodology documentation

The rules for the provision and use of databases in a de-identified form for scientific purposes, approved by Order of the Minister of National Economy of the Republic of Kazakhstan dated December 18, 2015 No. 778.

The interviewing technique for a sample survey of households to assess the standard of living was approved by order of the Chairman of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan No. 179 dated November 17, 2015 (registered in the Register of State Registration of Regulatory Legal Acts under No. 12412 dated 12/14/2015);

The methodology for constructing a sample of households for the survey of living standards, approved by the order of the Chairman of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan dated December 14, 2015 No. 202;

The methodology for organizing a survey of households to assess the standard of living, approved by the order of the Chairman of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan dated December 15, 2015 No. 208 (registered in the Register of State Registration of Regulatory Legal Acts No. 12871 dated 01/15/2016).

# S.12.2 Quality documentation

- 1. 1. Policy in the field of quality, approved by the order of the Chairman of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan dated April 23, 2015 No. 67.
- 2. 2. Quality objectives Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan, Quality objectives of the Office of Labor Statistics and Living Standards.
- 3. 3. Documented information of the quality management system: Quality manual; Documented procedures; Instructions; Process maps.
- 4. 4. Standard methodology for describing the process of production of statistical information by state bodies, approved by the Order of the Chairman of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan dated March 30, 2015 No. 53;

# S.13 Quality management

# S.13.1 Quality assurance

- use of standard statistical classifications;
- to confirm the reliability of the primary data, it is possible to obtain additional information from the respondents;
- a comparative analysis of statistical data (in dynamics) is carried out;
- rotation of the sample;
- in order to improve the quality of data, check the correctness of filling out the statistical form and minimize the lack of answers on some questions of the statistical form, plausibility checks are defined at the level of inputting primary data in electronic format, various format and logical controls are also included in the software for processing primary statistical information.

# S.13.2 Quality control

The quality and reliability of data on living standards statistics is supported by generally accepted procedures:

- compliance with the basic principles of primary accounting;
- use of standard statistical classifications;
- to confirm the reliability of the primary data, it is possible to obtain additional information from the respondents;
- a comparative analysis of statistical data is carried out (in dynamics, with administrative data, cross-sectoral);

- rotation of the sample;
- in order to improve the quality of data, check the correctness of filling out the statistical form and minimize the lack of answers on some questions of the statistical form, plausibility checks are defined at the level of inputting primary data in electronic format, various format and logical controls are also included in the software for processing primary statistical information.

# S.14 Relevance

#### S.14.1 Needs

Information users: government agencies, Interstate Statistical Committee of the Commonwealth of Independent States, Eurasian Economic Commission, UN

#### S.14.2 User satisfaction

An annual survey of users of official statistical information is carried out according to the questionnaire Q-002 "User survey"

- S.14.3 Completeness / R1. Data completeness-share
- S.15 Accuracy and reliability (to be completed according to the type of observation)
- S.15.1 Overall accuracy
- S.15.2 Sample errors indicators / A1.
- S.15.3 Non-sampling error
- S.15.3.1 Coverage error

In the course of the survey, there are cases when it is not possible to interview households due to the fact that the dwelling has not been found, or not occupied, or the household refuses to participate in the survey. Refusal to participate is undesirable because it reduces the sample size and mainly because it is a source of potential sample bias and leads to distorted statistical results.

An effective preventative measure for overcoming data failure is to carefully document each case.

If there is a difficulty in observing the principle of "non-replacement", a list of reserve households is provided in the amount of 1/3 of the number of households in each cluster (10 households per interviewer).

In total, 40 dwellings are selected in each cluster: 30 in the nominal sample and 10 replacement dwellings.

At the same time, it should be noted that to compensate for cases of complete non-receipt of data, a simple weights adjustment scheme is used by setting large weights for all responding households in a given locality. The lack of data due to refusals to participate in the survey is about 5% per year.

S.15.3.1.1 A2.Excess coverage-share

Unacceptably

S.15.3.1.2 A3 General units-ratio

Unacceptably

S.15.3.3 No response errors

#### S.15.3.3.1 A4. Absence unit-share

Data shortfall occurs when the sample does not participate in the survey at all, or only participates in it. To compensate for cases of complete non-receipt of data

a simple weights adjustment scheme is applied by setting large weights for all responding households in a given locality. The weights of all responding households in this

settlement increase by the same coefficient.

## S.15.3.3.2 A5.No answer item - share

According to the Methodology for constructing a sample of households for the survey of living standards, approved by the order of the Chairman of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan dated December 14, 2015 No. 202, in the absence of data only on certain issues, the imputation method is applied (imputation) values. This method consists in replacing the missing data for an individual item with a value for which a forecast is made, taking into account other information available for this object or for other objects of this survey.

# S.16 Своевременность и пунктуальность

# S.16.1 Своевременность

# S.16.1.1 ТР1.Период ожидания-первые результаты

The first results for the quarter in the bulletin are published 70 days after the deadline for submitting the primary statistical information by the respondents and are final.

The release dates were approved and published in the Statistical Work Plan and the Schedule for the Dissemination of Official Statistical Information.

## S.16.1.2 TP2. Waiting Period - Latest Results

The first results are final.

S.16.2 Punctuality

# S.16.2.1 Punctuality / TP3

The data are published in accordance with the Plan of Statistical Work, approved in accordance with the procedure established by the legislation of the Republic of Kazakhstan by the Order of the Minister of National Economy of the Republic

Kazakhstan and the Schedule for the dissemination of official statistical information, approved by the Order of the Chairman of the Bureau of national statistics of the Agency for strategic planning and reforms of the

Republic of Kazakhstan

## S.17 Сопоставимость

# S.17.1 Geographic comparability

The data is comparable across regions.

S.17.1.1 Asymmetry in mirrored flow statistics-coefficient / CC1 S.17.2 Length of comparable time series / CC2

The dynamic range of household food consumption has been comparable and continuous since 2001.

# S.18 Consistency

# S.18.1 Consistency, external, cross

The methodology for constructing a sample of households for a standard of living survey was developed on the basis of the recommendations of the World Bank experts as part of the implementation of the Joint Economic Research Project for 2010 "Development of a new sample for a household survey to assess the standard of living". The specified Methodology corresponds to the methods of sampling accepted in the world practice and ensures the receipt of high-quality statistical data.

# S.18.2 Internal consistency

The interviewing technique for a sample survey of households to assess the standard of living was approved by order of the Chairman of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan No. 179 dated November 17, 2015 (registered in the Register of State Registration of Regulatory Legal Acts under No. 12412 dated 12/14/2015);

The methodology for constructing a sample of households for the survey of living standards, approved by the order of the Chairman of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan dated December 14, 2015 No. 202;

## S.19 Нагрузка

The methodology for organizing a household survey to assess the standard of living was approved by order of the Chairman of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan dated December 15, 2015 No. 208 (registered in the Register of State Registration of Regulatory Legal Acts No. 12871 dated 01/15/2016).

Statistical forms D 008 "Control card of household composition", D 003 "Diary of daily expenses" and D 004 "Quarterly questionnaire on household expenditures and incomes" reflect information on the share (number) of the population with incomes below the subsistence level (cost food basket), poverty depth coefficient, poverty severity coefficient, Gini coefficient, distribution of total income among different population groups - income concentration in certain population groups. Data collection is carried out on paper. Information processing processes are automated using local software systems, control of input and output information is provided. Duplication with other examinations is excluded. No administrative data is used.

S.20 Revision of dataS.20.2 Revision of data / A6S.21 Processing of statistical dataS.21.1 Input data

The dataset is based on records of information on accounting for daily cash expenditures on food products (consumed in the household) and their quantities (including products received free of charge from a personal subsidiary farm or as a gift), as well as the cost of fuel and lubricants. The diary is completed by a household member. For this survey, households are selected by the method of two-stage probabilistic (random) sampling, using stratification procedures and random selection at each stage of sampling. The information base for the formation of the sample population of households is the Statistical Register of Housing Stock (hereinafter - SRHF). The unit of the survey is the household. The sample size is 12 thousand households (0.3% of the general population). In order to obtain data that are generalized to the general population, statistical weighting of the survey results is performed. The implementation of this method is carried out by assigning to each surveyed household a statistical weight that characterizes the total number of households represented by the part of the sample. The weights for the indicators of the living standards of the population are calculated on a quarterly basis.

To calculate the weights, we use the data of the SRLF on the distribution of the surveyed households separately by urban and rural population in the regional context. The sum of the "base" weights provides an estimate of the number of all households in a given region and the country as a whole. Their use allows you to preserve the consistency of the sample population with the original principles of sampling. The lack of responses from the selected households is a serious flaw that distorts the survey results. In these conditions, it becomes necessary to compensate for the missing data. This procedure is designed to carry out an additional calculation of indicators, i.e. compensate for the lack of data from the sample survey. Data shortfall occurs when the sample does not participate in the survey at all, or only partially participates in it. To compensate for cases of complete non-receipt of data, a simple scheme for adjusting the weights is applied, by setting large weights for all responding households in a given locality. The weights of all responding households in a given locality are increased by the same coefficient. For example: if 90 percent of households in the primary sampling units answered all questions, the weights for all respondents are increased by a factor of 1 / 0.9 = 1.11. All non-responding households are excluded from the sample by giving each of them an actual weight of zero. The calculated personal weights are recorded as additional variables in the database for each household and are used in the formation of summary totals for the corresponding quarter at the republican and regional levels. The disseminated data on average for the year is obtained by combining quarterly data. In order to avoid the effect of household fatigue from participation in the survey, the sample of households is periodically rotated. The process of systematic rotation of the sample is not associated with the replacement of households that refused to participate in the survey. Household rotation (sample update) should be carried out annually in the amount of 1/3 of the total number of surveyed households. That is, every year 1/3 of the households are removed from the sample and replaced by others. Thus, after 3 years, a complete update of the sample will take place. At the end of the year (in December), 10 households are randomly selected in each cluster and deduced from the sample. An additional 10 of the initially selected households are randomly selected and deducted from the sample at the end of the next year, and the remaining 10 households at the end of the following year. Each time, 10 new households are randomly selected from the updated base of the SRLF to take the place of the withdrawn ones.

## S.21.2 Inspection frequency

quarter

# S.21.3 Method (method) of collecting primary statistical data

The data collection method is performed by interviewing. Data collection is carried out on paper by filling in statistical forms D 008 "Control card of household composition", D 003 "Diary of daily expenses" and D 004 "Quarterly questionnaire on household expenditures and income".

# S.21.4 Reliability of primary statistical data

Data processing procedures include editing, importing and aggregating data. At the first stage of processing, the database is edited and brought into working condition. For this, the following types of control are carried out:

1) control to identify extreme values (outlays). The area of extreme values of indicators is outside the interval, the boundaries of which are determined by the deviation from the mean

indicators by the value of the standard deviation;

- 2) the maximum and minimum values of quantitative indicators are analyzed;
- 3) assessment of the quality of the information received from the respondents. For this purpose, a logical control system is built within each section of the questionnaire, which allows eliminating both input errors and registration errors on the part of households: expenses that are atypical for households (purchase of exotic food or expensive food for feeding pets),

the living area should not be more than the total;

4) control based on the logical relationship of information obtained from different statistical forms. With the help of cross-questions, the relationship between the questionnaires is checked, the completeness of filling out forms is controlled.

# S.21.5 Imputation - share / A7

According to the Methodology for organizing a household survey for assessing living standards, approved by the order of the Chairman of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan dated December 15, 2015 No. 208, the second stage of data processing is imputation - assigning values to the missing answers ...

In the survey of households to assess the standard of living, there is a certain percentage of non-responses both on the survey forms and on their individual questions. In order to avoid errors caused by lack of answers, when processing data, it is important to compensate for the missing information.

The imputation of missing answers for various types of expenses of one of the weeks of the diary is carried out at the regional level according to the corresponding types of expenses for the completed week of the diary. In the absence of a quarterly questionnaire (if there is a diary), it is not imputed, the household is excluded from the survey and all diary entries are not processed.

The imputation of missing data for individual indicators is performed as follows:

- 1) lif the quantity is known, but the purchase price is not indicated, then the average purchase price for the region is conditionally assigned to this product;
- 2) if there is no quantity, but the purchase price is known, then the quantity is imputed, which is equal to the ratio of the indicated value to the average purchase price of the given product in the region;
- 3) if both the quantity and the purchase price are absent, but there is a name, then the average purchase quantity of this product and its cost are imputed.

# S.21.6 Adjustment

Correction of data is carried out directly in the course of statistical observation.

S.21.6.1 Seasonal adjustment

Unacceptably

S.22 Notes