

Quality report on the number of unemployed populations

Item No	Concept Name	Description
1	Contact	
1.1	Contact organization	State Statistical Committee of the Republic of Azerbaijan
1.2	Contact organization unit	Department of Labour Statistics
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2	Statistical presentation	
2.1	Data description	Information on the unemployed population is obtained based on sampling statistical survey of the labour force conducted according to the methodology of the International Labour Organization (ILO). Indicators on the number of unemployed population and unemployment level are regularly published and international comparisons are made.
2.2	Classification system	Classification of administrative territorial division, 2019 National classification of education Access to all classifications: https://www.stat.gov.az/menu/5/ http://www.azstat.org/tesnifat/ Classifications are available only in Azerbaijani.
2.3	Sector coverage	Covers all administrative regions of the country.
2.4	Statistical concepts and definitions	According to the methodology of the International Labour Organization, the unemployed population are persons who have no job and earnings, have been seeking work for the last 4 weeks or 1 month to engage in any kind of paid or income-generating job and are ready to start work within 2 weeks.

2.5	Statistical unit	Sampled households and their family members aged 15 and over
2.6	Statistical population	Unemployed population by country
2.7	Reference area	Covers the whole country
2.8	Time coverage	The unemployed population is calculated based on the methodology of the International Labour Organization since 1999.
2.9	Base period	Since 1999, any period can be used as reference period.
3	Statistical processing	
3.1	Source data	Primary data are formed through the survey of members of households aged 15 and over based on a quarterly survey of the labour force. The survey is conducted based on two stages. The units of the first stage are enumeration areas, and the units of the second stage are households. The first step is to determine the enumeration areas involved in the sampling. These areas are randomly selected within each region. Areas involved in the sampling are actualized every year. The volume of sampling for the survey implies 1 % of the total number of households available in the country for 1 January of each year. This volume of the sampling is proportionally divided to the urban and rural areas of the economic and administrative regions of the country and a sampling plan is compiled. Based on this plan, the number of sampling is calculated proportionally on the areas and in accordance with the established number, households are selected in each district by simple random method on the cities and villages separately. Regional list of households involved in the sampling is drawn up. The list shows code, name of the area, number of enumeration area, name, surname, address of the head of the household. Starting from the II quarter of each year, the rotation method is applied. Thus, each quarter 25% of sampling volume is replaced with new ones within the district.
3.2	Frequency of data collection	Data collection is conducted quarterly.
3.3	Data collection	Data are collected through face-to-face interviews with respondents. www.stat.gov.az/menu/4/e-reports/az/02/002_p.php Seminars are regularly held to the interviewers.
3.4	Data validation	The data collected by the local statistical bodies are checked at the micro and macro levels, i.e., according to the sampling plan, the response level of household and respondents to the survey, the appointment of households or respondents who have declined the survey, households that are not available at the address indicated in the list are clarified. At the same time, respondents who provided incomplete responses to the questions in the questionnaire are identified. The discrepancies detected by comparing the survey data of the previous period with the current statistical data are eliminated.

3.5	Data compilation	<p>If discrepancies are detected during the observation of the online database, the relevant local statistical body, including the persons conducting the survey, is informed about it and appropriate adjustments are made before the end of the reporting period.</p> <p>Editing of discrepancies detected during Data Quality Control is also carried out at the macro level, i.e., descriptive statistics of individual indicators are calculated at the level of economic regions, including districts (cities), urban and rural areas. In this case, the average quantity of important quantitative indicators, the error of the average quantity, the standard deviation, the coefficient of variation, the coefficient of stagnation, etc. mathematical-statistical characteristics are determined. Indicators with large variation are studied for editing separately. Conditional recovery (imputation) of data released during the control is carried out by appropriate methods. When adjusting and restoring gaps (missed indicators), the average quantity, close neighbor, regression model, etc. methods are used. Unresponsive households are considered in the recalculation of weights.</p>
3.6	Adjustment	Seasonal adjustments are not conducted.
4	Quality management	
4.1	Quality assurance	<p>The quality management system is implemented in the State Statistical Committee in accordance with international standard ISO 9001, in 2013 an external audit of the quality management system was conducted, and in August of the same year the State Statistical Committee first received a certificate of international compliance ISO 9001:2008 in the field of "Production and dissemination of the official statistical data". After the change in the international standard in 2015, all documents of the quality management system had been revised in accordance with the requirements of the international standard ISO 9001:2015. According to the results of the certification audit carried out on 09-10 March 2017, the administration of the State Statistical Committee and 13 local statistical bodies applying QMS, and then according to the results of the re-certification audit conducted on 02-06 March 2020, the administration of the State Statistical Committee and additional 17 local statistical bodies applying QMS were awarded international certificate of compliance ISO 9001:2015 in the field of "Production and dissemination of the official statistical data".</p> <p>http://www.stat.gov.az/menu/2/quality/az/sertifikat_2015.pdf</p> <p>Seminars on QMS are organized for employees of structural units of the administration and local statistical bodies not less than once a year. In 2010 and 2017, a Global Assessment of the National Statistical System of the Republic of Azerbaijan was carried out by the European Statistical Office (Eurostat), United Nations Economic Commission for Europe (UNECE) and the European Free Trade Association (EFTA). According to recommendations of experts, improvements are being carried out in this area. To standardize the</p>

		production of statistical products, “General Statistical Business Process model” (GSBPM) has been applied since 2012. Based on the National version of the “General Statistical Business Process model” (GSBPM), a description of statistical processes on the “application of GSBPM in statistical process of statistical survey on “Economic activity of population” was developed. https://www.stat.gov.az/menu/2/quality/az/gsbpm/labour/02_sb.pdf
4.2	Quality assessment	<p>Based on the “Audit program” approved annually, internal audits are carried out in the departments of the administration and local statistical bodies applying QMS. Audit teams are organized for conducting audits and an individual audit plan is approved for each structural unit. The audit team carries out the control according to the audit plan. Internal monitoring of quality aspects in the State Statistical Committee is carried out in a centralized manner by the competent structural unit (Quality Management and Metadata Department) and every year a document “Analysis by the top management” on the results of the conducted audits is prepared and submitted to the top management. Before every audit the audit team members (auditors) are instructed by the chief auditor and through seminars organized not less than once a year.</p> <p>Compliance of the activities of the State Statistical Committee with the requirements of the international standard “Quality management systems. Requirements” ISO 9001:2015 is considered one of the strengths. The increase of the workload due to the incomplete transition to electronic documentation and alongside this, keeping paper document circulation, the late adaptation of the staff (employees) to the new standards requirements are considered the weaknesses.</p>
5	Relevance	
5.1	User Needs	Indicators on the number of unemployed populations are the focus of attention of international organizations, governing bodies, mass media, researchers, representatives of the public.
5.2	User Satisfaction	According to the results of the "online survey on provision of users with statistical data" held on 25.11.2020, 80,8% of respondents stated that they fully believe in labour statistics, 13.1% partially, 6.1% do not believe.
5.3	Completeness	Data is completely compatible with survey methodology.
5.3.1	Data completeness - rate	100%
6	Accuracy and reliability	

6.1	Accuracy - overall	<p>Compilation of the draft sampling statistical observation includes all regions of the country (urban, rural). The selection plan is drawn up by 1% in proportion to the number of households available in the regions. Representability is provided for all regions of the country. Selection of samples is carried out via SPSS software package by simple random method with two stages. The efficiency of the project (design effect) is calculated on the sampling sign (according to the number of households in the first stage, and the size of the family in the second stage). Quantitative and qualitative indicators are estimated.</p>																																																	
6.2	Sampling error	<p>Statistical characteristic of the total population on the sampling sign (average quantity, standard deviation, dispersion, variation coefficient, standard error of the sampling average quantity, coefficient of stagnation, etc.) is calculated by the Center for Scientific Research and Statistical Innovations. Since the enumeration areas are compiled based on population census data, solidarity is provided for the number of households. For this reason, the grouping of enumeration areas is not carried out. In the second stage of sampling, the size of households is taken as the basis for sampling. Statistical characteristics are calculated according to the size of households. Since the sampling process is carried out in urban and rural areas within the district, solidarity is provided for the size of households.</p>																																																	
6.2.1	Sampling error - indicators	<p>Sampling error indicators (dispersion, standard deviation, standard deviation of the average quantity, variation coefficient, coefficient of stagnation, efficiency of project (design effect – deff), reliability interval, representability error) are calculated on the basis of collected primary data (micro). Households covered by the project but not actually responding to the survey are classified by reasons, if any, and are considered in the recalculation of weights. Households are selected with equal probability, so there is no need for a special expert assessment in the calculation of weights.</p> <p>Calculation of sampling errors of the unemployment rate</p> <table border="1" data-bbox="545 1356 1515 1755"> <thead> <tr> <th></th> <th>Average rate of unemployment</th> <th>Standard error of the average quantity</th> <th>95% probability of error</th> <th>The lower limit of the average quantity</th> <th>The upper limit of the average quantity</th> <th>Coefficient of variation, %</th> </tr> </thead> <tbody> <tr> <td>Total</td> <td>6,96</td> <td>0,14</td> <td>0,27</td> <td>6,69</td> <td>7,22</td> <td>1,95</td> </tr> <tr> <td>from</td> <td></td> <td></td> <td></td> <td>0,00</td> <td>0,00</td> <td></td> </tr> <tr> <td>man</td> <td>7,01</td> <td>0,19</td> <td>0,37</td> <td>6,64</td> <td>7,37</td> <td>2,68</td> </tr> <tr> <td>woman</td> <td>6,90</td> <td>0,20</td> <td>0,38</td> <td>6,52</td> <td>7,28</td> <td>2,84</td> </tr> <tr> <td>urban</td> <td>8,63</td> <td>0,21</td> <td>0,41</td> <td>8,22</td> <td>9,04</td> <td>2,43</td> </tr> <tr> <td>rural</td> <td>5,24</td> <td>0,17</td> <td>0,33</td> <td>4,90</td> <td>5,57</td> <td>3,23</td> </tr> </tbody> </table>		Average rate of unemployment	Standard error of the average quantity	95% probability of error	The lower limit of the average quantity	The upper limit of the average quantity	Coefficient of variation, %	Total	6,96	0,14	0,27	6,69	7,22	1,95	from				0,00	0,00		man	7,01	0,19	0,37	6,64	7,37	2,68	woman	6,90	0,20	0,38	6,52	7,28	2,84	urban	8,63	0,21	0,41	8,22	9,04	2,43	rural	5,24	0,17	0,33	4,90	5,57	3,23
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		Calculation of sampling errors of the unemployment rate by age group					
	Average rate of unemployment	Standard error of the average quantity	95% probability of error	The lower limit of the average quantity	The upper limit of the average quantity	Coefficient of variation, %	
Total	6,96	0,14	0,27	6,69	7,22	1,95	
from							
15-29	14,94	0,42	0,83	14,11	15,76	3,95	
30-44	6,17	0,23	0,46	5,71	6,62	4,95	
45-64	3,64	0,15	0,29	3,34	3,93	5,95	
65+	9,32	0,72	1,42	7,90	10,74	6,95	
6.3	Non-sampling error	Non-sampling error is carried out in accordance with the “Rules for classification and elimination of errors in the reporting data” approved by the decision of the State Statistical Committee No. 9/3 dated October 30, 2019. https://www.stat.gov.az/menu/2/quality/az/00_5.pdf					
6.3.1	Coverage error	The total household population covers all regions of the country (urban and rural) and the sampling plan drawn up based on it. In the first stage of selection of observation units, descriptive statistical indicators (average quantity, standard deviation, standard error of average quantity, etc.) are calculated according to the number of households on enumeration areas. This operation is also carried out on the sampling population. In the second stage, the size of households is used as a sampling sign and the descriptive statistical indicators on that indicator are compared with the corresponding indicators of the total population. The main goal is to ensure representability and reduce the coverage error. It should be considered that, public housing (hospitals, nursing homes, military barracks, isolators, etc.) aren't considered during the compilation of the draft sampling observation.					
6.3.1.1	Over-coverage - rate	Over coverage - 0%					
6.3.1.2	Common units - proportion	Not applied, because here there is no combination of survey data and administrative data.					
6.3.2	Measurement error	Initial data (micro) are entered online by the interviewers, and micro-editing of the data is initially carried out by local statistical agencies, and macro-editing is carried out by employees of the labour statistics department. During macro editing, statistical characteristics of key indicators at different levels (district, city, village) are calculated and studies on indicators with high coefficient of variation are conducted and edited if necessary.					
6.3.3	Nonresponse error	The collected initial data are examined and the data that do not belong to the respondent but are conditionally calculated are determined, if necessary, the ratio of the data to the total amount of					

		data is calculated. Experience shows that such cases are unlikely to happen. No error was detected regarding respondents who didn't respond.
6.3.3.1	Unit non-response - rate	The average annual rate is 3.2%.
6.3.3.2	Item non-response - rate	All items were answered by the respondents.
6.3.4	Processing error	Micro data collected online is transferred to the Access and SPSS software package format. Data processing and analysis is carried out through these software packages. During the initial processing of data, special attention is paid to the integrity, completeness, conformity, accuracy of the data, especially the logical and arithmetic verification. The compatibility of coding conducted during data processing with existing classifications is checked. The presence of gaps during the input of the initial data is determined and checked by the control figures.
6.3.4.1	Imputation - rate	Imputation is not carried out, so the level of imputation is 0.
6.3.5	Model assumption error	The adequacy and accuracy of the regression model used during recovery of the primary data is checked. Clustering is carried out when the compiled model does not meet the required conditions (criteria). In this case, the main goal is to reduce the standard error of the average quantity by creating groups of peers. At the same time, the error generated from the application of the model is reduced.
6.4	Seasonal adjustment	Seasonal adjustments are not applied.
6.5	Data revision - policy	Data specification policy is implemented based on the "Regulation on review of data on main statistical indicators" approved by order of the State Statistical Committee dated 10.05.2016, No 60/t. http://www.stat.gov.az/menu/6/information_regulations/reg_05_2016.pdf
6.6	Data revision - practice	Review is not implemented.
6.6.1	Data revision - average size	Review is not implemented since this indicator is not calculated.
7	Timeliness and punctuality	
7.1	Timeliness	Timeliness is regularly discussed with users. Timeliness of observation is agreement (compromise) between users' needs and time of possible production.
7.1.1	Time lag - first result	Primary data after the reporting period 55th day (T1=55)
7.1.2	Time lag - final result	T2=45

7.2	Punctuality	Calculation and dissemination of indicators is carried out based on "Statistical Works Program". Cases of delay from the period specified in the dissemination calendar and program were not observed.
7.2.1	Punctuality - delivery and publication	Cases of delay are equal to zero (P3=0).
8	Coherence and comparability	
8.1	Comparability - geographical	Comparability is provided for the country, as well as for urban and rural areas.
8.1.1	Asymmetry for mirror flow statistics - coefficient	Not applied.
8.2	Comparability - over time	Data on this indicator are available since 1999 and there were no intervals in time series.
8.2.1	Length of comparable time series	21 comparative reporting period (CC2=21)
8.3	Coherence - cross domain	No related statistics.
8.4	Coherence - sub annual and annual statistics	Annual results are fully coherent with annual results.
8.5	Coherence - National Accounts	Non-coherent with the national system of accounts.
8.6	Coherence - internal	Internal coherence is fully provided.
9	Accessibility and clarity	
9.1	News release	Information on this indicator is submitted to the press.
9.2	Publications	Main data on indicator is reflected in the yearbook "Labour market", "Statistical indicators of Azerbaijan", "Women and men in Azerbaijan" "Youth of Azerbaijan". http://www.stat.gov.az/menu/6/statistical_yearbooks/
9.3	Online database	Information on this indicator is available in online database. https://www.azstat.org/portal/tblInfo/TblInfoList.do
9.3.1	Data tables - consultations	57479 views (7.39 % of total views on all sections) on labour statistics were registered for 22.04.2021. http://www.stat.gov.az/link_click_counter

9.4	Microdata access	<p>Access to microdata is prohibited. Primary data could be used only according to “Rules on submission of microdata to users for research purposes” approved by the chairman of the State Statistical Committee on 13.06.2011.</p> <p>http://www.stat.gov.az/menu/6/personal_info/micro_inf.pdf</p>
9.5	Other	<p>All data are free of charge for users. Requests of users are answered in electronic and written form.</p> <p>Domestic and foreign users, including the International Labour Organization, the European Bureau of Statistics and other international organizations are regularly provided with information on the results of the survey.</p>
9.6	Documentation on methodology	<p>Methodological explanations (only in Azerbaijani) could be found at the following link:</p> <p>http://www.stat.gov.az/menu/7/other_metadata/</p>
9.7	Quality documentation	<p>Quality report –</p> <p>http://www.stat.gov.az/menu/2/quality/</p>
9.7.1	Metadata completeness - rate	100% (AC3=1)
9.7.2	Metadata - consultations	Record of the number of appeals on metadata is not implemented.
10	Cost and Burden	<p>Collecting data from respondents through online questionnaires is one of the most important steps to increase efficiency. Moreover, regular work is being done in the field of reducing the burden on respondents regularly in the official statistical reports: for example, data for indicators that can be calculated based on various indicators are not already collected. In addition, regular assessments are carried out to identify indicators that have lost their relevance and are not needed. There is “Concept on reducing the respondents’ statistical burden” approved by the Order of the State Statistical Committee of the Republic of Azerbaijan No 16 / 07s dated April 30, 2014.</p> <p>https://www.stat.gov.az/menu/2/quality/az/responders.pdf</p>
11	Confidentiality	
11.1	Confidentiality - policy	<ul style="list-style-type: none"> • “According to the “Law on Official Statistics of the Republic of Azerbaijan” (Article 15) submission of primary data is prohibited. http://www.stat.gov.az/menu/3/Legislation/law_az.pdf • Access to microdata is regulated by “Rules on submission of microdata to users for research purposes” approved by the chairman of the State Statistical Committee on 13.06.2011. http://www.stat.gov.az/menu/6/personal_info/micro_inf.pdf • There are guidelines “How to work with private data and how to protect their confidentiality?” approved by the decree of the State Statistical Committee dated 19 February 2014, No 7/02s.

		<p>http://www.stat.gov.az/menu/6/personal_info/personal_information.pdf</p> <ul style="list-style-type: none"> • Protection of primary (private) data confidentiality is reflected in the document “Policy of the State Statistical Committee of the Republic of Azerbaijan on protection of confidential statistical data” <p>http://www.stat.gov.az/menu/2/quality/az/mexfilik.pdf</p>
11.2	Confidentiality - data treatment	Official Statistics must not be disseminated to users if they contain or reveal confidential data. Aggregates shall comprise at least three units and the share of one unit in an aggregate must not exceed 85% of the total.
12	Comment	No additional comments.