

## Statistical product – Business tendencies

**Statistical product-** Industrial production output and realization/ volume indices of industrial production (monthly/yearly), realization of finished product (monthly/yearly), production of industrial output, business tendency survey: mining (monthly/yearly), manufacturing (monthly/yearly), electricity, gas, steam and air conditioning supply (monthly/yearly), water supply, sewerage, waste management and remediation activities (monthly/yearly)

Processes	Sub-processes	Sub-process description
<b>1 Specify needs</b>		
	<b>1.1 Identify needs</b>	The main purpose of the collection of indicators is to provide short term and monthly information on industrial production (production output) and realization volumes. The indicators are applied in the field of industry for the purposes of strategy development, solutions of strategic tasks, analysis of business environment, revealing social development trends and other purposes.
	<b>1.2 Consult &amp; confirm needs</b>	The indicators are collected according to the Annual Statistical Program (it is available on the Armstat website at <a href="https://www.armstat.am/am/?nid=191">https://www.armstat.am/am/?nid=191</a> ), which is also elaborated on the basis of users requirements to the statistical information taking into account the limits of available resources, the capacity of statistical information providers and cost-effectiveness. The users' opinions about statistical information are studied by business discussions as well as through the "User satisfaction survey questionnaire" which is available on Armstat website (see: <a href="https://www.armstat.am/am/?nid=131">https://www.armstat.am/am/?nid=131</a> ).
	<b>1.3 Establish output objectives</b>	The provisions of RA Law on "Official Statistics" related to the statistical data confidentiality are strictly followed in the process of the collection, use, publication and storage of needed information (data) for the calculation of indicators. (see: <a href="http://www.armstat.am/file/doc/99486043.pdf">http://www.armstat.am/file/doc/99486043.pdf</a> ).

	<b>1.4 Identify concepts</b>	The inclusion of indicators is stipulated by the availability of statistical information users' requirement.
	<b>1.5 Check data availability</b>	Industrial organizations and individual entrepreneurs sector are the main sources for the calculation of the indicators. At the same time, the administrative registers are an alternative source of data collection. The RA Ministry of Energy Infrastructures and Natural Resources is an administrative register. Data collection is carried out by the statistical reporting form according to the Annual and Five-Year Statistical programs.
	<b>1.6 Prepare business case</b>	Before the adoption of the statistical reporting forms by the RA State Council on Statistics and state registration by the RA Ministry of Justice, as a legal act, the discussions on indicators included in them and the instructions for their completion are carried out with different interested institutions and users, as well as the opinion of international experts is taken into account where possible.
<b>2.Design</b>		
	<b>2.1 Design outputs</b>	The data are collected based on the Law on "Official Statistics" and "Five Year Statistical Program", as well as the Resolution No. 05-N of RA State Council on Statistics "On Approval of the Procedure for the collection of statistical data" dated 20 June 2016 and Resolution "On Approval of Annual Statistical Program", as well as Resolution N 25-N of RA State Council on Statistics on approval of statistical reporting forms 1-art (monthly, quarterly, annual) on "Report on Industrial production of organization' and the methodological instructions to fill in them.  Dissemination of information (statistical bulletins) is carried out both in paper and electronic forms.
	<b>2.2 Design variable descriptions</b>	The Revision 2 of Classification of Types of Economic Activity is used for the collection of indicators (Order of the Minister of Economy of RA N-1579 RA, OB 04.11.2013 30/(474)1, dated 10 December 2019) (NACE Rev.2) (see: <a href="https://www.armstat.am/am/?nid=370">https://www.armstat.am/am/?nid=370</a> ) is used for the

		collection of indicators.
	<b>2.3. Design collection</b>	The main form of the collection of statistical information is paper form form through the statistical reporting forms approved by the RA State Council on Statistics, according to the Annual Statistical Program. The electronic method of the collection of information is also applied. Data collection is implemented by sampling observation method.
	<b>2.4 Design frame and sample</b>	The design of the general population is implemented to provide complete information regarding the sphere. For this purpose, the receiving of information from all possible sources on industrial sphere previously known is implemented and immediately, the organizations are notified about being involved in the statistical observation field and then the relevant statistical information is collected.
	<b>2.5 Design processing and analysis</b>	After the collection of information the statistical indicators are subject to arithmetic and logical checks, and in case of necessity the appropriate adjustments are carried out also by contacting the relevant organizations that provide the information. In case of submission of not reliable, incomplete or corrupted information on indicators, in case of need the process of verification is also implemented according to the requirements of the Article 169.2 of RA Code on “Administrative Offences”, as a result the prior period data are subject to be adjusted. An assessment of the non-observed (non-calculated) field of separate individual productions (bread, cheese) (based on low productivity products) is implemented to ensure the completeness of the accounting field using the results of households and the sampling surveys.
	<b>2.6 Design production systems and workflow</b>	The preparatory work is carried out for all processes from the collection of information and until its publication, particularly, related to the appropriate notification of respondents, the training of the staff through professional courses and etc.
<b>3.Build</b>		

	<b>3.1 Build collection instrument</b>	The statistical reporting form needed for the collection of information and the instruction for filling in it are available in paper and electronic form (see link <a href="https://www.armstat.am/am/?nid=547">https://www.armstat.am/am/?nid=547</a> ).
	<b>3.2 Build or enhance process components</b>	The methodological guidelines and instructions necessary for information calculation and verification of needed information are available. Input software (Microsoft Office Access) has necessary tools for arithmetic and logical checks of input data, systems for checking the sum total, logical chains, organizations' registration, identification and tax payer's registration numbers compliance and other automated checks systems.
	<b>3.3 Build or enhance dissemination components</b>	The dissemination of information is possible in paper, as well as in electronic form of publication of information on monthly, quarterly and annual basis in accordance with the Annual Statistical Program.
	<b>3.4 Configure workflows</b>	The derivation of statistical product is carried out by the following successive stages: <ol style="list-style-type: none"> <li>1. collection of information,</li> <li>2. arithmetical and logical checks and adjustments,</li> <li>3. information input through the pre designed input software (Microsoft Office Access software),</li> <li>4. comparison of obtained summary data with the corresponding time series,</li> <li>5. dissemination of information in paper or electronic forms through the yearbooks, information reports, statistical handbooks, as well as through the official response letters upon the official requests.</li> </ol>
	<b>3.5 Test production system</b>	Due to indicators changes in the primary statistical reporting forms the input software is regularly undergoing to relevant changes. The testing of software is also carried out in case of need.
	<b>3.6 Test statistical business production</b>	In parallel with the inclusion of the indicators in the primary statistical reporting form, the field examination of the latter is implemented to reveal the opportunities of the respondents to provide with the indicators, as well as to test their understanding of it.

	<b>3.7 Finalize production system</b>	The composition of methodological clarifications on the completion of indicators available in statistical reporting form and provision to the statistical information providers (respondents) is carried out. The consents of information providers on indicators got during the workshops are summarized.
<b>4.Collection</b>		

	<b>4.1 Create frame and select sample</b>	The main information is collected from the organizations and individual entrepreneurs, thus the large and medium size organizations (more than 51 employees) by statistical purposes are wholly included in the observation that ensures high degree accuracy. The latter's present information on a monthly basis. Information from small and medium sized organizations (0-50 employees) and individual entrepreneurs are collected by sampling method on a quarterly basis. The Statistical Business Register is used to form a general population for the sampling implementation. The sampling is stratified according to the types of activities (according to the NACE2 classification grouping) and by the number of the employees.
	<b>4.2. Set up collection</b>	In order to organize the collection of statistical data, the formation of order on printing of relevant statistical reporting form and in case of need of the instruction of filling in it, their printing and distribution to the relevant organizations is implemented according to the number of organizations previously known as subject to observation. At the same time the statistical primary reporting forms and the instruction of filling in them are accessible on the Armstat official website. (see link <a href="https://www.armstat.am/am/?nid=547">https://www.armstat.am/am/?nid=547</a> ). The required network resources for the report collection in the electronic form are in place.
	<b>4.3 Run collection</b>	Statistical data collection is carried out by the Armstat territorial units, marz departments as well as relevant units of Armstat by hand, mail and electronic system means

		according to the Resolution of RA State Council on Statistics No 05-N on the “Approval of the Procedure of the collection of Statistical Data” dated 20 June 2016.
	<b>4.4 Finalize collection</b>	The collected information, after being arithmetically and logically cross checked, is input in the electronic environment. The information input is carried out automated, as well as by direct input of information in electronic environment.
<i>5.Process</i>		
	<b>5.1 Integrate data</b>	Information received by the statistical reporting forms from industrial organizations and individual entrepreneurs is unified with the information from administrative sources, providing complete information on industry.
	<b>5.2 Classify and code</b>	The coding process by the main type of activity of the organization according to the classification of economic activities (NACE Rev. 2), as well as the encoding of marz and territorial units in accordance with a predetermined order are implemented.
	<b>5.3.Review and validate</b>	The cross checking of incomplete and corrupted presented data , as well as the compiling of incorrect encoded data with requirements of pre-approved classifications is implemented. In the case of need, the validation of relevant codes on registration of organization in state register, identification is implemented using the data provided by the business register maintained by the Armstat and by the agency implementing state register of legal entities of the RA Ministry of Justice that is an administrative data source.
	<b>5.4 Edit and impute</b>	The completion of the missing data is implemented using the data on the indicator presented for the previous period in case of the lack of the alternative information on them. The completed data in case of being available for the next periods is subject to adjustment.
	<b>5.5 Derive new variables and units</b>	An assessment of the non-observed (non-calculated) field of separate individual productions (bread, cheese) (based on low

		productivity products) is implemented to ensure the completeness of the accounting field using the results of households and the sampling surveys.
	<b>5.6 Calculate weights</b>	The information on the selected organizations is weighted in the general population of all the organizations in accordance with the strata respective weights formed according to the RA regional affiliation and the classification of types of economic activities.
	<b>5.7 Calculate aggregates</b>	The summary data by separate statistical indicators are derived based on the input data through the pre-designed software.
	<b>5.8 Finalize data files</b>	Often, the calculation of primary indicators that are subject to further adjustments is done based on primary information, due to the necessity to obtain operative statistical data.
<b>6. Analysis</b>		
	<b>6.1. Prepare draft outputs</b>	<p>The creation of indicator groups, as well as time series of statistical indicators is implemented based on obtained statistical summary data. For making comparisons the indices of industrial production volume are calculated on a monthly, quarterly and annual basis, the reporting month to the previous year's month, reporting quarter to the previous year's quarter, reporting year compared to the previous year.</p> <p>The calculation of received indicators is also used to present the summary information on organizations determined by the employees' number, as well as to create the time series of indicators.</p>
	<b>6.2 Validate outputs</b>	<p>The methodological requirements to the received indicators are strictly followed during the whole process of indicators receiving according to the pre-defined classifications, methodological guidelines and the instruction on completing the statistical reporting form.</p> <p>Output data are compared with the previous month (period) indicators, as well as the relevant month (period) of the last</p>

		year. It is carried out the study of differences between the data.
	<b>6.3 Interpret and explain of outputs</b>	The logical analysis of the received summary indicators is carried out using the dynamics of relevant indicators of the previous years.
	<b>6.4 Apply disclosure control</b>	The confidentiality of statistical indicators (not containing individual (personal) data) that is subject to publication, as well as requested by the users of statistical information is strictly followed according to the Law on Official Statistics and the Resolution of the SCS No 53 " Approval of the Order on Protection of Statistical Confidentiality" dated 25 June 2001, and only summarized data are provided (see: <a href="https://www.armstat.am/file/doc/99454478.pdf">https://www.armstat.am/file/doc/99454478.pdf</a> ).
	<b>6.5 Finalize outputs</b>	-
<b>7. Dissemination</b>		
	<b>7.1 Update output system</b>	The available time series are updated every month setting the indicators on industrial production sphere and «Armstat.Bank» is also updated every year (see the link: <a href="http://armstatbank.am">http://armstatbank.am</a> ) in the industrial production sphere by Yerevan and marzes.
	<b>7.2 Produce dissemination products</b>	All the production steps are implemented for the disseminating products: preparation of explanatory text, tables, charts and other materials, editing of these products and making them compliant with publishing standards.  The information on the statistical indicators is published in Armenian, Russian, English through the yearbooks, statistical handbooks and monthly informational reports.
	<b>7.3 Manage release of dissemination products</b>	The dissemination of statistical information is carried out according to the schedule envisaged by the Five-Year and Annual Statistical Programs. In case of the changes and adjustments made in the indicators provided by the providers of statistical information the indicators already published by the Armstat are also being changed and adjusted correspondingly.
	<b>7.4 Promote</b>	Submission of dissemination products. Use of tools to



	<b>dissemination products</b>	manage communication with users. Use of website, Facebook, etc.
	<b>7.5 Manage user support</b>	In case of the official request of the users of statistical information related to the information not being published, the calculation of additional indicators is carried out at possible extend and submitted to them following the principle of confidentiality of statistical information.
<i>8.Evaluation</i>		
	<b>8.1 Gather evaluation input</b>	The collection of data from the same source and/ or from the administrative register on relevant organizations is carried out for the purpose of comparison.
	<b>8.2 Conduct evaluation</b>	The comparisons of data on the same organizations received by the same source included in the different reporting forms are implemented from the point of view of the quality management of statistical indicators. The relevant information provided by administrative registers, such as the body of state registration of legal entities of the RA Ministry of Justice and/or the Ministry of Finance serves as informational basis for the evaluation of information quality. Incorporation of information in the evaluation report, including quality issues and recommendations for further improvements
	<b>8.3 Agree an action plan</b>	In the case of detection of discrepancies between the information received from different sources on the same indicator being compared, the revealing of the possible reasons is carried out, and the corresponding final adjustments are implemented based on it.