

Statistics product– Labour Cost (Structure of Earnings (Annual), Labour Cost (Annual), Hours Worked (Monthly), Nominal Salary (Monthly /Yearly)

Processes	Sub-processes	Sub-process description
<i>Specify need</i>		
	1.1. Identify need	<p>The main purpose of the collection of indicators is to provide users with monthly or quarterly or annual basis information on the size of remuneration, working hours, vacancies (demanding workers), labour cost and earnings structure. Indicators are applied to develop labor market and social-economic nature strategy and to solve the strategic tasks, to analyse the business environment, to reveal social development trends and other purposes.</p>
	1.2 Consult and confirm needs	<p>The indicators are collected according to the Annual Statistical Program which is also developed on the study of the requirements of statistical information users taking into account the limits of available resources, the burden on statistical information providers and cost-effectiveness.</p> <p>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: https://www.armstat.am/am/?nid=131).</p>
	1.3 Establish output objectives	<p>In the process of the collection, use, publication and storage of information (data) the provisions of RA Law on "Official Statistics" related to the statistical data confidentiality are strictly followed.</p>
	1.4 Identify needs	<p>The groups of indicators are formed based on the requirements of users.</p> <p>In order to ensure an international comparability of indicators, the suggested definitions and provisions of the Statistical Office of the European Union and the International Labor Organization are served as a basis taking into account the peculiarities of their applications in Armenia.</p>
	1.5 Check data availability	<p>The main sources for data collection are legal entities, government and local self-government bodies, individual</p>

		<p>entrepreneurs who have at least one employee.</p> <p>Data collection is carried out by the statistical reporting form, as well as by sample observation/ survey questionnaires according to the Annual and Five-Year Statistical Programs. The State Employment Agency of the Ministry of Labor and Social Affairs is another administrative statistical source on vacancies that collects the relevant information on a monthly basis from the cooperating employers by reporting forms.</p>
	1.6 Prepare business case	<p>The data are collected by the statistical reporting forms (reporting forms).</p> <p>Before the approval of the statistical report form by the RA State Council on Statistics and its state registration by the RA Ministry of Justice, as a legal act, the discussions with different institutions, research organizations, and users are carried out. If it necessary, the indicators can be revised, taking into account the methodology proposed by the International Labor Organization (ILO) (definitions, classifications, concepts), as well as legislative changes and peculiarities, expert recommendations.</p>
	2.1 Design outputs	<p>The statistical product is produced by the collection of relevant data.</p> <p>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 09-N "On Approval of Annual Statistical Program" as well as the the Resolution 09-N of RA State Council on Statistics dated 19 October 2018 on approval of Statistical Reporting Form (annual) on the "Number of employees, hours worked and expenses of employer" and the instruction of filling them in and Resolution of RA State Council on Statistics N 05-N on approval of "Vacancies, number of Employees and job flow in Trade Organizations" survey questionnaire</p>

		and instruction of filling it in. Since January 2018 the Statistical Committee of the Republic of Armenia has been introduced the new administrative source for the average wage calculation, which is based on the database of individual records on income tax and social security tax (database) authorized by the State Revenue Committee of the Republic of Armenia (SRC RA). The legal basis of changes is the Decree 1582-N of the Government of the Republic of Armenia dated 30.11.2017 " On Making Amendments and Changes to the Decree of the Government of the Republic of Armenia No. 1676 dated 20 December 2012".
	2.2 Design variable description	Statistical product is formed on the basis of relevant indicators, and indicators are based on the corresponding variables. The composition and content of the variables are determined by the purpose and nature of the indicator. The 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: https://www.armstat.am/am/?nid=370) is used for the collection of indicators.
	2.3 Design data collection	The main form of statistical information collection is electronic. The paper-based information collection method is also applied through the statistical reporting form approved by the State Council on Statistics of the Republic of Armenia in accordance with the annual statistical program. Statistical observations include large, medium, small and micro organizations for statistical purposes of public and private sectors.
	2.4 Design frame and sample	The design of the general population is implemented to provide complete data regarding the sphere. The organizations, regardless of the type of activity (processing industry, education, culture, etc.), economic sector (state, non-state) and organization's size (large, medium, small, micro) are the main sources. After receiving the information on the activity of the new organization, the

		organization is immediately notified of being involved in the observation field to provide relevant statistical information, if the organization meets the prescribed criteria for regular reporting (monthly, annual) Number and economy sector).
	2.5 Design processing and analysis	After the collection of data the statistical indicators are subject to multiple checks, which start from the regional statistical unit and ends at the Armstat headquarters. Additionally, data processing software performs logical and arithmetic testing of the submitted information. In case of necessity the appropriate adjustments are carried out also by contacting the relevant organizations that provide the data, as a result of which appropriate adjustments are made. In case of submission of not reliable, incomplete or corrupted data on indicators, 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.
	2.6 Design production systems and workflow	The preparatory work is carried out for all processes from the collection of information and until its publication started from the design of reporting form or sampling survey’s questionnaire and their filling instructions (a set of required variables, a combination of information, a combination of information providers (sampling design), periodicity of data collection, etc.) and before informing the providers of information (responders), the training of employees is implemented.
Build		
	3.1 Build collection instrument	The description of building a collection tool is described in the 1.6 Prepare Business Case. The statistical reporting form for data collection, survey questionnaire and the instructions for filling in it are available both in paper and electronic form (see link https://www.armstat.am/am/?nid=547).
	3.2 Build or enhance process components	The guidelines and instructions necessary for information verification 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 codes and tax compliance and other self-checks systems.
	3.3 Build or enhance dissemination components	The dissemination of information is available in paper, as well as in electronic form of publication of information on a monthly, quarterly and annual basis in accordance with the Annual Statistical Program.
	3.4 Configure workflows	<p>The derivation of statistical product is carried out by the following successive stages:</p> <ol style="list-style-type: none"> 1. Formation of bulletins of statistical units providing regular information, in case of sample surveys, formation of sample population, 2. Collection of information, 3. Regulation of information flows, classification, 4. Arithmetical and logical checks, adjustment, 5. Exploitation of information processing program, input of preliminary verified data in the database, automatic verification of input information (statistical units, completeness of collected variables, arithmetic and logical verification of variables), 6. In case of sample survey, extrapolation of data to the general population; 7. Data check and analysis, coherence with methodology, classification, change of indicator structure, interrelation, interdependence of summary information different characteristics (economy sphere, economy sector, month etc.), comparison of indicators in time-series (previous months, past years etc.) with similar indicators received from the other sources, 8. Database archiving, 9. Convert the output data to the information (indicator) to be published, according to the developed algorithm, 10. Standardization of indicators (tabulation, charts, diagrams),

		11. Dissemination of information in paper, electronic form in yearbooks, informational reports, statistical thematic and other manuals, as well as by official inquiries.
	3.5 Test production system	In case of the introduction of data input software or change of conditions in the current software the testing is implemented. The change in the conditions in the current software is mainly conditioned by the change of indicator (s) and / or methodology in the reporting form.
	3.6 Test statistical business process	Before making changes to the reporting form and to survey questionnaire/ inclusion of variables/ indicator/, the following are carried out : 1. Professional discussions inside and outside the organization, 2. Field testing of the latter with the different respondent providing reliable and scrupulous information (size of organization, sphere, sector of the economy, etc.), to get information on the ability of the respondent to provide an indicator, as well as to test their perception. .
	3.7 Finalize production system	Summarizing the results of the business process test results, the methodological clarifications on filling out the statistical reporting form or survey questionnaire are developed or reviewed and are provided to the statistical information providers (respondents) by the established procedure.
<i>Collection</i>		
	4.1 Create frame and select sample	Basic information is collected from legal entities and government and local bodies organizations. Large and medium size organizations, government and state organizations are observed on monthly basis and entirely that ensures the high level of indicators representativeness. In order to ensure the integrity of data the small and micro – size organizations are involved in observation on annual basis and by sample method taking into account the reduction of the burden of respondents and ensuring cost-effectiveness and targeted results. The sampling population is formed on the basis of the business register and the volume is decided based on the resources, making 30-35%.

		<p>General population is stratified by the marzes, types of activities and the groups formed by number of employees, deviding in the stratas by applying the Neyman's formula.</p> <p>In general, the general population is consisted of 15 000 organizations and 10000 of them are small and micro–size organizations.</p>
	4.2 Set up collection	<p>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.</p> <p>At the same time the statistical reporting form and the instruction of filling it in are accessible on the Armstat official website. The required network resources for the report collection in the electronic form are in place.</p> <p>Responsible staff of structural and territorial units has relevant knowledge and skills to organize statistical information collection process.</p>
	4.3 Run collection	<p>Statistical data collection is carried out by the Armstat territorial units, regional agencies, as well as by the relevant unit of Armstat, by hand, mail and electronic - system means according to the Resolution of RA State Council on Statistic No 05-N on the “Approval of the Procedure of the collection of Statistical Data” dated 20 June 2016.</p>
	4.4 Finalize collection	<p>The collected data, after being arithmetically and logically checked, is input in the electronic environment. Automatedl and electronic methods are used to input data.</p>
5.Process		
	5.1 Integrate data	<p>The data, received from the legal entities, state and community authorities by the statistical reporting forms are unified in the survey questionnaire by summarizing full information on statistical product.</p>
	5.2 Classify and code	<p>The type of organization is coded based on the the Classification of Economic Activities (NACE, rev 2), and marz and territorial units are coded ing in accordance with</p>

		Classification of Division of administrative-territorial units.
	5.3 Review and validate	The cross checking of the presented incomplete and incorrect data is implemented, the matching of incorrect encoded information to the requirements of the classifications applied is also implemented. In some cases the primary data are revised based on adjustments provided by the organizations: In case of need the validation of relevant codes on registration in the tax bodies, identification, registration of organizations in state register is implemented using the data provided by the business register maintained by the Armstat and the information by the state register agency of legal entities of RA (Ministry of Justice of RA) that is used as an administrative data source. (see: 3.4 Configure workflows):
	5.4 Edit and impute	The completion of the missing data in reports is carried out: 1) In case of monthly data, the previous period data are repeated. 2) In case of annual data, the data are calculated based on the data for the previous 12 months. Description of data editing and additional calculation is provided in the Special Data Dissemination Standard and relevant Quality Declarations. In the case of non-presenting of statistical data collected by the sample survey, the missing information is replenished if the data has not been submitted due to the closing or dissolution of the organization. In the case of non-recognition of the organization, the data are restored by the average values of the relevant data of the companies operating in the given layer and, in case of refusal of the organization by the average values of the relevant data of organizations operating in that layer.
	5.5 Derive new variables and units	Based on the peculiarity of the indicator, the collection and summarizing of monthly salary data requires a continuous periodicity. As a result, the final adjusted monthly index is published two months later (for example, the January adjusted index is published in March). Taking into account

		<p>the operational requirement of the indicator, before the summarizing the indicator based on the report, a statistical assessment of wage is carried out using the coefficients calculated based on the analysis of the time series for the last three or four years.</p>
	5.6 Calculate weights	<p>The need to use weights rises in the phase of the extrapolation of the data of sample survey of private sector's small and micro size (see 4.1). In order to design a sample, the general population is stratified according to the RA marz affiliation, the types of economic activity and the size (large, medium, small, and micro) after the random stratified sampling is implemented. For selected stratas, depending on the sample size, weights are calculated that allow to extrapolate the sample data to the general population and to ensure the complete, representative data.</p>
	5.7 Calculate aggregates	<p>The primary input information is summarized according to the individual statistical classifications (data grouped by the marz affiliation, the economic sphere, the sector) and the characteristics (for example: sex, salary) based on the requirements of information users and the internal use needs.</p> <p>After the dissemination of statistical data collected by the sample survey, a sample error is calculated which reflects the confidence interval of the index with the "+/-" .</p>
	5.8 Finalize data files	<p>After completing the above described stages of data processing, a common micro-database is formed. A software that develop algorithms that are used to derive the output indicators, whose group is formed on the needs of the organization and on requirements of statistical information users.</p> <p>Among the statistical products presented in this model, there are indicators that are mostly final at the first publication and there are indicators that, before the final adjustment, go through several revisions. For example, the annual salary indicator is final at the fourth stage of review. The previous three publications are qualified as operative and differ from the preliminary and final, with a degree of</p>

		<p>enrollment and / or accuracy.</p> <p>In case of change of the published indicator, the adjustment is accompanied by explanatory notes.</p>
Analysis		
	6.1 Prepare draft outputs	Based on the summary information it is carried out the groupings of statistical indicators, indices, as well as time series. Indicators are calculated both at RA level and grouped according to economic activities types (NACE (Chapter 2)) 19 sections, separate sectors of the economy and sectors, marzes, regions, village / town breaks, gender distribution, etc.
	6.2 Validate outputs	The methodological requirements to the received indicators are strictly followed during the whole process of receiving according to the pre-defined classifications, methodological guidelines and the instruction on completing statistical reporting and summary reporting form. (see 3.4 Configure workflows 5 th and 7 th paragraphs as well as 5.4 Edit and impute).
	6.3 Interpret and explain outputs	The logical analysis of the received summary indicators is carried out taking into account the the impact of the different phenomena taking place in the economy.
	6.4 Apply disclosure control	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: https://www.armstat.am/file/doc/99454478.pdf).
	6.5 Finalize outputs	The information that is subject to the dissemination is standardized turning into table, chart, diagram, accompanied by a description of the methodology, explanations and by links to other sources, simple statistical analyzes, which are intended to facilitate the understanding, the correct interpretation and use of the indicator.
7. Dissemination		

	7.1 Update output system	All the data subject to the publication are available with time series at «ArmstatBank.am» (http://armstatbank.am), «Statistical indicators», which are regularly updated.
	7.2 Produce dissemination products	<p>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.</p> <p>The information on the statistical indicators is published in Armenian, Russian, English through the yearbooks, statistical handbooks and monthly informational reports.</p> <ul style="list-style-type: none"> • Information on main macroeconomic indicators characterizing the socio-economic situation of the Republic of Armenia (monthly) • “Social-Economic situation of the Republic of Armenia” (monthly) (Armenian and Russian). • “Food security and Poverty” statistical bulletin (quarterly) • Statistical Yearbook of Armenia http://www.armstat.am/am/?nid=45 • RA marzes and Yerevan city by figures http://www.armstat.am/am/?nid=82&id=1607 • Armenia in figures (annual) • The Labor Market in RA”(annual) • “Women and men in RA” statistical handbook (annual)
	7.3 Manage release of dissemination products	<p>The dissemination of statistical data is carried out according to the schedule and statistical indicators release calendar envisaged by the Five-Year and Annual Statistical Programs. http://armstat.am/file/calendar/Kalendar-am.pdf#page=93:</p> <p>In case of revealing errors for various reasons in the published data, statistical data may be temporarily removed from the website and reentered after the adjustment.</p>
	7.4 Promote dissemination products	Various information presented on the Armstat official website (indicators, metadata, notifications, news about the

		sphere, micro-data, etc.) is not only a statistical tool, but also dissemination tool of information on the Armstat activity, which promotes the effectiveness of the sector's activities.
	7.5 Manage user support	<p>In the case of an official request of users of statistical information related to unpublished indicator, calculation of additional indicators is carried out to the extent possible and presented to them in accordance with the principle of statistical data confidentiality.</p> <p>Based on the analysis of the most frequently requested (non-published) information by users, the range of calculated and / or published indicators is revised.</p>
<i>Evaluation</i>		
	8.1 Gather evaluation input	In view of the improvement of salary statistical business process it was set up as a priority to move from the traditional form of the collection of information to more advance one and to use the administrative statistical tools.
	8.2 Conduct evaluation	In order to solve above mentioned problem, with the contribution of the international experts process has been started.
	8.3 Agree an action plan	In order to apply the administrative statistical tools for salary statistics it is foreseen to organize workshops, discussions with the experts of administrative bodies to clarify its expediency, process-related issues, and the possibilities for solving them.