

Ministry of Education and Science of Ukraine
Poltava National Technical Yuri Kondratyuk University

Ivanytska Svitlana
Galayda Tetyana

**«*LABOR ECONOMICS
AND SOCIAL-LABOR RELATIONSHIPS*»**

EDUCATIONAL GUIDANCE

**FOR STUDENTS OF ALL ECONOMIC SPECIALTIES ALL MODES OF
STUDY
IN TWO PARTS**

PART 2



Poltava 2017

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Reviewer: Romanova T., PhD, associate professor of Enterprise Economics
and Personnel Management Department
PoltNTU

Strilets V., PhD, Head of foreign philology and translation,
associate professor PoltNTU

Responsible for editing – V. Chevganova, Head of Enterprise Economics and
Personnel Management Department, PhD, professor

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Planning, organization and labor rating; labor efficiency and
productivity; policy incomes and wages; financial reporting and audit in the
range of employment and social-labor regulations international experience
fundamentals are described in the second part.

Educational guidance is for students of economic specialties, also for post
graduates, researchers, teachers and professionals who are involved in labor
economics and social-labor relationships.

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CONTENTS

Introduction.....	4
Part II. Productive labor economic mechanism	5
Topic 11. Personnel management enterprise fundamentals....	5
Topic 12. Labor Organization and standardization	14
Topic 13. Labor efficiency and productivity	31
Topic 14. Income policy and wage.....	41
Topic 15. Analysis, reporting and audit in labor sphere.....	52
References	57

INTRODUCTION

The transition to a market-oriented social economy requires the labor economic substance rethinking. The role of labor economics and industrial relations in the field of economics is the study of patterns and ways to best use, reproduction and enrichment of the main productive forces of society-man (human resources), the organization and promotion of effective employment of people to maximize their needs, life standard level and quality improvement.

Knowledge of labor economics and social labor relations helps to define, calculate, analyze performance and reserves increased productivity and efficiency of work, sources of the wage bill and its effective use in enterprises, current trends in employment potential problems of productive employment and the labor market; investigate the mechanism of the system of industrial relations and the impact of globalization and integration processes on the economy of the country.

The course "Labor Economics and Labor Relations", is studied by students of all economic specialties at universities, which indicates the importance and significance of this discipline.

The purpose of the textbook «Labor Economics and Social Labor Relationships» is to promote the students' scientific outlook and deep knowledge of labor economics and labor relations, acquiring skills to perform a particular economic activity.

This part of the guidance contains important topics «Economic mechanism of productive labor» The guidance sets out the theoretical fundamentals and practical methods of industrial relations at the enterprise level. Special attention is paid to elucidate the mechanism for increased productivity and work efficiency; mastery of the methods of work time expenditures, regulation of labor; wage and salary regulation; fundamentals of HR management company; problems of the modern labor market monitoring; integration problems of labor relations into Ukrainian labor relations system which is recognized by the International Labor Organization.

The guidance is oriented for full-time and part-time students and distance learning mode of study at universities.

The course «Labor Economics and Social-Labor Relationships» has relations with such disciplines: «Business Economics», «Organization and planning of production activity», «Labor Safety», «Management of labor potential», «Labor market», «Sociology», «Social Economics», «Economics», «Management», «Analysis of labor indicators», «Human Resources», «Statistics», «Labor Law», «Labor Safety Fundamentals».

PART II

PRODUCTIVE LABOR ECONOMIC MECHANISM

Topic 11. Personnel management enterprise fundamentals

11.1. Personnel: structure, types of numbers. Labor Movement.

11.2. Planning, development and evaluation of personnel as components of personnel policy

11.3. Functions and methods of personnel management in the enterprise.

11.1. Personnel: structure, types of numbers. Movement of labor

Personnel are a set of permanent employees who have received the necessary training and provide economic activities.

Staff hired workers, is person who entered into an employment agreement (contract) with an employer. The composition of the staff are also owners or co-owners of the company, if they are involved in its activities with its own labor and receive appropriate payment along with part of their income.

Staff is the subject of management, productive force, the main component of every production process.

Personnel on the principle of participation in production activities are divided into two categories:

- 1) industrial personnel, engaged in manufacturing and its maintenance;
- 2) non-technical staff, who is on the balance sheet (workers Housing, children, medical care facilities and others.).

The structure of industrial personnel are workers, technical employees, specialists (experts) and leaders.

Workers belonging to persons directly involved the creation of wealth, repair of property, movement of goods, transport of passengers, provision of material services and others. They are divided into basic, support and service.

The main workers include those who are employed directly in manufacturing production (machine operators, operators of automated production lines and so on.) auxiliary - those that cater to production processes performed by the main workers (installers, repairmen, janitors and others).

Until managers are managers and their departments and their deputies.

By specialists (experts) are workers employed engineering, economic, accounting, legal and other functions.

The technical officials include employees who provide training and documentation, accounting and control, business services and outsourcing (agents, cashiers, supervisors, clerks, accountants, draftsmen and others).

Depending on the nature of work personnel divided by professions, specialties and skill levels, demographic composition and level of education.

Occupation - this type of activity, for which the necessary range of theoretical knowledge and practical skills and appropriate qualification training.

Specialty - a complex man acquired knowledge and practical skills that enables it to engage in certain occupations within the profession (tool-maker, fitter-assembler).

Qualification - is the extent and level of the worker, professional knowledge, skills and experience. It characterizes the complexity of a particular type of work that he performed.

Warehouse workers by category creates a frame structure.

The structure of the personnel is a corresponding proportion of workers in the total number of staff. The structure of the staff study and analyze the enterprise as a whole and for its individual units.

The number of personnel is constantly changing due to the fact that the company has over a period of hiring and firing workers. Therefore distinguish the practice of accounting and analysis personnel, payroll, recruiting staff and the average composition.

To account are all employees of the company, accepted a permanent, seasonal and temporary work for a period of one day or more from the date of enrollment to work.

Recruiting composition shows how many people from those who are on the list appeared to work. Actual number of employees is a number of staff that not only come, but actually started to work.

Average number of employees is the average number for the period, which is determined by counting the number of employees scheduling for each calendar day of the reporting month and dividing this sum by the number of calendar days in the reporting month.

Characteristics of personnel are its dynamic (movement). Movement of personnel is as follows.

Ratios (indicators) motion rate:

- Total turnover ratio - the ratio of the total number of accepted and retired for a certain period to the average number of employees.

- Turnover ratio of the reception - is the number received in a given period to the average number of employees.

- Turnover ratio of assets - the ratio of departures to the average number of employees.

- Turnover ratio - the ratio of the number of laid-off workers subjective reasons (on their own, initiated by the administration in connection with the expiration of the contract) to the average number of employees.

- Permanence factor (sustainability) rate - the ratio of employees available in your part of the whole calendar year to the average number of employees year.

- Ratio stability of personnel (staff) - the ratio of the number of employees that have developed in your part of the company within three (some sources five) years or more to the average of workers.

Movement of personnel (staff) in the company is divided into external and internal (intra firm). External movement implies acceptance and dismissal of employees. Internal movement is characterized by movement of workers within the enterprise (organization). Most important is the type of movement associated with work - labor mobility.

Labor Mobility - a process largely voluntary movements of workers between jobs and related employment forms. It aims to ensure consistency between the personal and material factors of production. Labor mobility includes, firstly, the movement of workers regarding employment and, second, changing employment potential (professional qualification characteristics) of the employee in the course of employment.

11.2. Planning, development and evaluation of personnel as components of personnel policy

Personnel policy is a set of rules and standards, goals and ideas that define the direction and content of work with the staff. A personnel policy being implemented goals and objectives of personnel management, so it is considered the core personnel management system. Personnel policy formed the leadership of the organization implemented service personnel in the performance of its employees of their functions.

There are several types of personnel policy:

- Passive personnel policy. Management has a program of action concerning personnel and reduced personnel work to eliminate negative consequences. For a typical lack of forecast staffing needs, job evaluation tools and personnel, diagnostic personnel situation more.

- Reactive personnel policy. The company's management monitors the state of negative symptoms in HR, the causes and the situation of crisis, conflict, lack of skilled labor, lack of motivation to work. Human life developed but not integrated forecasting program of staff development.

- Preventive personnel policy. Management has reasonable forecasts for the personnel situation. However, the organization has no means to influence it. The programs are the development of short and medium-term forecasts staffing requirements formulated tasks of staff. The main problem - the development of targeted recruitment programs.

- Active personnel policy - a rational personnel policy.

Traditionally, the practice also distinguishes the following types of personnel policy:

- Open personnel policy characterized by the fact that the organization is transparent for potential employees at any level, the organization

is ready to hire any professional qualifications without taking into account relevant experience in other organizations.

- Closed personnel policy characterized by the fact that the organization is focused on the inclusion of new staff only from lower levels, and the replacement is only from the staff of the organization. This personnel policy is typical for companies focused on the creation of a corporate atmosphere, forming much of the spirit of belonging.

The main contents of personnel policy is the following:

- providing high-quality workforce, including planning, selection and recruitment, release (retirement, dismissal), turnover analysis, etc.;
- development of employees, career guidance and retraining, an appraisal and assessment skills, organization promotion;
- Improvement the organization and promotion work, ensuring the safety, benefit. HR Departments are actively involved in negotiations with trade unions in the collective bargaining in the analysis of complaints, claims, regulate labor discipline.

The main goal of personnel policy - is the timely provision of optimal balance of recruitment process, saving personnel and its development according to the needs of the organization, the requirements of current legislation and the labor market.

Personnel policies should be flexible. The base system is its regulation of labor relations.

Functions personnel policy:

- recruitment;
- training (training);
- assessment of staff, nomination, promotion;
- motivation, control of discipline;
- control over the implementation of hygiene and safety and storage of material goods;
- ensure communications between management and representatives of labor collectives;
- implementation of social functions (assistance, food).

Planning staff includes assessment of existing enterprise resources; identify possible needs in the workforce; Labor market research and development personnel recruitment program to meet the needs of the enterprise.

Planning staff as one of the important functions of HR, is the quantity, quality, time and space determining staffing requirements necessary to achieve organizational goals.

The purpose of workforce planning is to determine its qualitative and quantitative composition that provides enterprise development, its economic growth in the short, medium and long term.

Planning staff may be made in the following areas:

- structurally defined planning, is planning, based on a division of labor according to the manufacturing process;
- individual planning - career planning staff, planning staff update;
- collective planning - planning staff collective or individual groups.

Types of planning:

- apply short period of less than one year;
- medium involves development plan for the period of one to five years;
- a long-term development plans for more than five years.

Stages of planning staff could look like this:

- assessment of available reserves, their number and structure;
- evaluation of future needs; tracking changes in the structure of the professional qualification of personnel, identifying manpower requirements stating the quantity and quality indicators;
- development program for future needs.

Accounting staff is a system of surveillance methods of quantitative measurement and registration status and use of all categories of workers. Usually determine the need for personnel in preparation and development of a business plan.

Personnel planning must solve the problem of professional and career development of employees, to create conditions for career growth.

Use staff is a set of measures aimed at ensuring conditions for the effective implementation of creative, physical and employment potential employees. It must meet the objectives of the organization to protect the interests of workers and to enforce the labor laws in the process.

Basic principles of rational use of personnel providing security:

- rational employment of workers;
- stability and uniform loading of employees during the working period (day, week, month, year);
- compliance with employment potential employee, his psycho-physiological data requirements and manufacturing jobs through the transition from one job to another;
- maximum possibility of the workplace various operations, providing alternating loads on different body parts and organs of the human senses.

An important area of work with the staff in the organization while attracting labor is labor management adaptation.

- Adapting this specialty mastering and adapting employees to certain social standards organizations, the establishment of cooperative relations officer and all the staff who contribute to the effective labor, material living and spiritual needs of both sides.

Adaptation can be:

- primary, is adaptation of young specialists who have professional experience;

- secondary, is adapting employees who have professional experience, but the change of object or professional role.

In modern conditions of great importance competitiveness ability of personnel is the ability of each employee and all together quickly and efficiently take and implement various innovations.

Staff development is an important factor in the success of the company.

- Staff development is a system of measures aimed at training and career growth of employees.

Staff development are closely interrelated and interdependent concepts such as education, vocational education, training and re-training, training, vocational qualification advancement (labor career).

- Education is the process and the result of systematic assimilation of individual theoretical knowledge and practical skills that it needs for professional education, training for work, integration into society.

Vocational training is focused on the formation of workers of theoretical knowledge and practical skills using special methods and forms required staff now or in the future. The organization provides professional training initial training of workers, retraining or training workers and specialists with higher education.

Initial training of workers – obtaining a vocational education persons who previously had no working profession or specialty, providing the appropriate level of professional qualifications required for productive employment in the organization.

Retraining staff – a vocational or higher education aimed at mastering another profession (specialty) workers or specialists with higher education who has already won initial training in vocational or higher education.

- Staff training is vocational or higher education workers or specialists with higher education, which makes it possible to expand and deepen previously acquired staff knowledge and practical skills at the requirements of modern manufacturing or service sectors.

Professional qualification of personnel – promotion is the process of movement of workers, specialists with higher education between professional organizations, qualification groups and staff officers because of his mastery of new knowledge, skills and practical experience.

Career - a successful promotion in public, proprietary and other activities. The concept of career has many interpretations. Common reflect the idea of progress moving forward in one direction once selected the work, such as obtaining more power, higher status and power. In other words, career - a collection of all the positions that fit into one life.

There are two types of careers: professional and internal compliance.

In career employee in the course of their professional activity goes through various stages of development: education, work, and professional growth, consistent development of their professional skills, dismissal and retirement.

All these stages worker is not necessarily in the same organization.

Career change cover-house employee development stages within a single organization. Career intra implemented in three main areas:

- vertical, i.e. the movement to a higher level in the hierarchy;
- horizontal, i.e. transfer of an employee from one job to another (or to another functional area of activity, performance or change roles on stage, which has no hard formal consolidation in the organizational structure or complexity of tasks at the same stage of compulsory financial reward;
- centrifugal movement inside the cone - unofficial movement (unlike previous), which is won credibility and respect among colleagues.

The Contractor shall comply with the requirements relating to his official duties, content and nature of work and the requirements caused by the effective organization of production, using the most efficient working methods, technical means and so on.

Business personnel evaluation is a purposeful process of establishing compliance with the qualitative characteristics of staff (skills, motivation and properties) requirements of the office or workplace.

Evaluation of staff - a procedure through which reveal the extent to qualities of the employee, his people's behavior work, the performance of certain requirements; it is also planned, formalized description of work and efficiency of the staff.

Since assessment personnel are closely related concepts such production practices: motivation, system of wages and bonuses, career planning, training, personnel management.

Evaluation can be conducted:

- candidates for acceptance of their work;
- compliance with the requirements of workers workplace office;
- labor efficiency in order to establish the level of payment and forms of incentives;
- staff for Personnel Reserve, career planning, vocational qualification promotion;
- professional knowledge and skills of employees to organize internal compliance training;
- professional and leadership skills when recruiting for senior positions;
- qualifications of employees in the event of the need to change the type activity, profession due to health reasons reorientation release of the company and staff.

There are three basic traditional methods of evaluation staff:

- assessment for qualifications based quality options that most meet the individual being evaluated;
- evaluation of the results, in particular the degree of fulfillment of set objectives based on their significance;
- System test methods for evaluation.

Evaluation merit feasible mainly in the form of certification. Organizational draw up its holding company in the appropriate order. This certification providing official status, the results are used for making organizational decisions regarding a particular employee.

Certification - a set of actions that include verification of theoretical, technical and practical knowledge and professional skills for a particular control method, it is also the result of the evaluation documented worker. Certification should be carried planning (recommended once every 3 to 5 years). It covers the following stages:

- Preparatory;
- same certification;
- use the results of certification.

Attestation committee on the basis of these materials and reports on employee provides a summary of ratings

- responsible position, which holds;
- responsible position, which holds for improving conditions of work and the recommendations of the Certification Commission for re-certification a year;
- does not correspond to the position you hold.

The most difficult is the evaluation of the employee in employment. Its distinctive feature is that it is necessary to examine the personal qualities and, on this basis, to assess its potential as a potential employee, to evaluate expectations from him to get a return. Evaluation qualifications of employees at the reception of his work is complicated also reduces to explore its potential. In selecting staff often have to deal with assessment of personal qualities of the person for compliance office.

The choice of approach to the personnel depends primarily on the purpose of evaluation.

11.3. Functions and methods of personnel management in the enterprise

Human Resources - a collection of mechanisms, principles, forms and methods of influence on the formation, development and use of personnel of the organization, implemented as a series of interrelated areas and activities.

The main goal of personnel management:

- The formation of highly qualified, responsible personnel for assignments with modern economic thinking and the development of a sense of professional pride;

- Ensuring social efficiency team. HR as a complete system performs the following functions:

- Organizational - planning needs and sources of recruitment of staff;
- Social and economic - of the complex conditions and factors aimed at consolidation and efficient use of personnel;
- Reproductive - providing staff development.

Personnel Management System is aimed at solving the following tasks:

- active and fully meet the needs of organizations in labor resources necessary specialization and appropriate skill levels;
- forming and maintaining complex organizational, economic and socio-psychological conditions that facilitate the effective exercise of workers most of their functions;
- ensure the necessary relationship between staff management and other management areas of a company.

Human Resources provide certain functions, such as:

- setting goals and main areas of staff management;
- improving the system of personnel management in the organization;
- identify measures, forms and methods of implementation of goals;
- organization of implementation of the decisions concerning management;
- coordination and monitoring of the goals.

HR Methods:

- is economic - forecasting and planning personnel work, the balance of payments, labor, jobs and resources, definition of basic and additional staffing requirements and sources of provision etc.;
- organization and the manager (administrative) – are different ways of influencing employees based on the use of established institutional relations, legal regulations and standards;
- social and psychological - is the specific techniques and methods of influence on the formation and development of the labor collective and individual employees. Social methods are increasingly influencing all collective psychological – issues to individual employees.

Test Questions

1. What is the personnel?
2. Describe the main categories of personnel.
3. How is the recruiting and registration number of employees?
4. Expand the essence of planning staff.

5. What is the staff development?
6. What is the evaluation of staff?
7. Expand the HR function.
8. What are the main methods of personnel management.

Topic 12. Labor organization and standardization

- 12.1. Concept, content and objectives of labor management.
- 12.2. Division of labor and cooperation.
- 12.3. Job site organization.
- 12.4. Labor process and its rationalization.
- 12.5. Working conditions and factors of their formation. Occupational health and safety precautions. Labor discipline.
- 12.6. The essence and importance of work standardizing.
- 12.7. Objects of work standardizing. Work and rest schedule. Classification of working time. Work time expenditures.
- 12.8. The system of labor standards and core working hours. Methods of workflow standardization.

12.1. Concept, content and objectives of labor management

With the formation of socially oriented market economy the prestige and quality of skilled labor increases, and labor activity of workers is increasing, too.. Rational organization of labor is to ensure it, as its main function should be the best combination of employees and production facilities in the workflow to ensure maximum efficiency of job sites and production structures functioning.

At all levels of production, economic and socio-psychological objectives of improving labor management can be identified in the market economy.

Economic objectives include achieving maximum savings of live (direct) and materialized labor, increasing productivity, reducing costs in the process of producing goods and providing the appropriate quality of services.

Socio-psychological objectives stipulate formation of the labor conditions that would ensure a high earning capacity level of those employed in the production, such as: optimization of physical and psychological load on a worker, creation of favorable work conditions, full pay, improving the quality of work and labor discipline.

Work management is a way of combining direct producers with means of production in order to create favorable conditions for obtaining high- final social and economic results.

Work management at the company includes the following components:

- cooperation and division of labor;
- organization and service of job sites;

- standardizing of work;
- organization of recruitment and its development (retraining, refreshment training, career planning);
- improvement of work and rest schedules for the shift, week, month;
- organization of payment and incentives for work;
- workflow improvement, techniques and methods of work based on the progressive experience synthesis;
- creation of safe and favorable conditions of work, which stipulates minimizing harm caused by the production process, heavy physical and psychological stress, formation of health and safety system.

At various enterprises labor is organized in various forms. The main factors causing this diversity include:

- scientific and technical progress, systematic improvement of equipment and technology;
- production management system;
- psycho- and physiological factors and environmental protection features;
- factors related to the nature of the tasks to be solved at different levels of the production management system.

Work management has a variable content. As part of the production management, work management includes measures aimed at efficient use of labor forces.

12.2. Labor division and cooperation

Social division of labor is a differentiation of social functions performed by certain groups of people in society as a whole, and consequent formation of various spheres in the society (industry, agriculture, science, art, army, etc.), which, in their turn, are divided into smaller branches and sub-branches.

Technical division of labor is – a differentiation of working activity types between the departments and employees of an enterprise, division of workflow at an enterprise into a number of partial functions and operations, it is specialization of employees in the process of economic activity.

There are the following main types of labor division within a company:

- functional - division of labor between the different categories of employees depending on the nature of their functions and their participation in the production process.
- technological - division of labor by technological operations and processes, by phases, types of work activities, by products and details. Varieties of this form of labor division are: objective, detailed and operational division;
- professional - division of labor between groups of employees on the basis of technological homogeneity of the work performed by them.
- qualifying - division of labor between groups of workers depending on the complexity of their work.

Division of labor as the simultaneous coexistence of different types of work activities plays an important role in the development of production and labor. It is a prerequisite of production management and labor efficiency improvement.

Specialization of production processes contributes to the improvement of employees' working skills.

Division of labor is inseparably connected with its cooperation, which means achieving rational proportions of different labor expenses types and provides establishment of rational social and labor relations between the parties of the labor process, coordination of the people's interests and the production purposes.

Co-operation in the enterprise carried out in various forms, such as the individual carrying out the work at individual workplaces, the work of multiple or combined work functions and specialties, in a collective work.

Labor division and cooperation is always correlated, as it is impossible to ensure the continuity of the production process as a whole without coordinated work of people engaged in different production teams at an enterprise.

Therefore, specific forms of work cooperation exist: technological, objective, organizational cooperation of work.

12.3. Job sites organization

An important element of work management at the company is organizing job sites to create at each of them necessary conditions for high-efficiency and high-quality work with the lowest possible physical effort and with minimal nervous tension of a worker.

Job site is the primary unit of production, the area of working activity of one or more (if it is a collective job site) executives, defined on the basis of labor and other operating standards and equipped with the necessary tools for working activity. The job site as a place of employment determines working conditions (normal, hard, unhealthy), schedules of work and rest, nature of work (diverse, monotonous, etc.).

Depending on the production specificity, jobs sites can be classified according to various criteria:

- by occupations (job site of a design engineer);
- by the number of executors (individual or collective);
- by the degree of specialization (specialized or universal);
- by the level of mechanization (jobs sites for handicraft, mechanized, automated, hardware);
- by the number of equipment serviced (single-unit, multi-unit);
- by specific working conditions (stationary and mobile, underground and high-altitude, job sites with hazardous or dangerous working conditions, etc.).

Job site's organization is system of measures, subordinated to the production purposes, to equip job sites with means and objects of labor, for planning job sites, placing them in a certain order, their servicing, certification and rationalization. The specific content of these measures depends on the nature and specialization of a job site, its type and value in the production process.

Job site's equipment consists of a set of labor means, needed for specific work functions. It includes: major technological and auxiliary equipment; organizational equipment (office equipment, communications and alarm means, office furniture, tare, etc.); technologic auxiliaries (working and measuring tools, spare parts, etc.); work papers; communication means for supplying a job site with energy, information, materials and raw materials.

Complex equipment of a job site is a prerequisite for efficient workflow management. However, another important condition is rational spatial location of the equipment means in the job site so as to provide ease of their maintenance, free access to the mechanisms, savings manipulations and movements of the worker, a comfortable operation posture, a good field of the working area's view, labor safety, production area saving, easy interconnection between the neighboring job sites, subordinates and supervisors.

Providing these conditions is achieved during the job site's planning – the best spatial distribution of the material elements of production that are the job site's and the worker's equipment.

The level of work management in a particular job site depends on the quality of its maintenance. Maintenance of a job site provides its timely supplying with all the necessary things, including engineering servicing (setup, adjustment, repair); regular supply with the needed energy, information and consumables; quality control of the equipment, transportation and commercial services (tidying up the room, cleaning equipment, etc.).

Job sites maintenance is carried out according to the following functions: preparatory, informational, production, instrumental, adjustment, and power, control and so on.

For a comprehensive assessment of the job sites' quality, search for reserves and their actuation, raising efficiency of labor, the mechanism of job sites certification and rationalization is used. In the cause of certification, comprehensive assessment of the technical and organizational job sites' status, working conditions and job safety is performed, the possibility of capital return growth, the use of the employees' qualifying potential is considered. Certification permits to detect deviations from regulatory requirements or from the specific requirements of the production process or an executive and allows improving the job site's organization. As a result of each job site's certification, one of the following decisions is taken: to continue operation without modifications; to load additionally; to rationalize; to eliminate.

Rationalization is the activation of reserves to improve organization of the job sites identified during the assessment. The main purpose of certification and rationalization of job sites, as well as all organizational activities, should be improving the work efficiency and compliance to the requirements of labor protection and safety.

12.4. Labor process and its rationalization

Live labor is a prerequisite for any material or spiritual production. The labor process is a technically and financially conditioned, organized process of applying human mental and physical effort to obtain useful results, the process of converting the existing resources into the desired (socially useful) values and benefits, implemented and managed by man.

Labor processes (workflow) are distinguished by the following features: - by the nature of the object and the product of labor,

- by the functions of employees
- by the labor mechanization level
- by the extent of severity and hazard of labor conditions etc.

By the nature of the object and product of labor, the labor processes are differentiated as material-energetic and informational. Material-energetic processes are typical of manual workers, as the object of product of labor for them are material things (raw stock, materials, spare parts, machinery, etc.) or energy. For nonmanual workers (professionals, managers, technical executors) informational workflow is typical, where the main object and product of labor is information.

By their functions labor processes are classified according to the functional division of labor between different categories of employees depending on the nature of their functions and their participation in the production process:

a) labor processes of workers, technical executors, professionals, managers;

b) core labor processes (where basic products are directly produced) and secondary ones (which create the conditions necessary for the efficient implementation of the core ones).

By the level of labor mechanization, labor processes are divided into manual, machine-manual, machine and automated ones.

Structurally, any workflow consists of technological operations.

Technological operation is part of the workflow, performed by one or a group of employees at the single job site and at the same object. Operation is the basic unit of labor division at an enterprise and is characterized by immutability of a the job site, object of work and the executors. Changing even one of these symptoms indicates completion of one operation and the start or shutdown of another one. Structure of the operation, performed for the purposes of analysis

and for labor standardizing, commonly comprises working techniques, actions and manipulations.

Working manipulation is a single movement of human organs while performing a working action (e.g. "to take a tool", "to press a button", etc.).

Working action is a logically complete set of working manipulations, performed without interruption by one or more human working organs with the labor objects and means unchanged (e.g. the action "to turn off the personal computer" is performed by human hands and eyes with one computer by means of several working manipulations of pressing the button).

Working technique is a certain set of actions and manipulations of a worker with unchanged objects and means of labor, successively performed one by one and having a specific purpose.

Method of work is the way of performing the working process, a certain sequence and a set of working techniques and operations.

Techniques and methods of work should be considered rational if their application gives efficient results of the work (its high performance), while ensuring high product quality, compliance with the rules on using the equipment, norms of materials and energy consumption, intensity of the performers' labor.

Labor process rationalization stipulates successive implementation of the following stages: identifying, studying, analysis, generalization, designing and mastering rational techniques and working methods.

Rationalization of techniques and methods of work do not only concern manual or machine-manual labor processes. Mental labor (administrative, scientific, research, creative) has its own techniques and methods, too.

12.5. Working conditions and factors of their formation. Occupational health and safety precautions. Labor discipline

Working conditions are a combination of environmental factors influencing human health and labor performance in the workflow. Working conditions at each job site are influenced by the following factor groups: industrial, sanitary-safety, engineering-psychological, aesthetic and social factors.

Production factors are preconditioned by the features of engineering and technology, by the level of labor mechanization and automation, by the equipment quality of job sites, by work and rest schedules. Physical effort and nervous tension, operating posture of an employee, the pace and monotony of work depend on them.

Sanitary and hygienic factors are: temperature, humidity, air pollution, noise, vibration, luminance intensity in the job site.

Safety factors are providing protection of workers from injury, electric shock, chemical and radioactive contamination.

Engineering and psychological factors contribute to the comfort of the job site, perfection of the equipment's design, command units and operation control over the technologic process, ease of machines and mechanisms maintenance.

Aesthetic factors determine the production environment beauty, and pleasance of forms, colors and sounds in the job site, soothing design of recreation areas, etc..

Social factors are determined by relationships within the personnel, management style, mission and goals of the company and by the level of their identification with the interests of the employee. Under the influence of these factors the moral and psychological climate in the team is formed.

According to the recommendations of the International Labor Organization, ten key groups of production environment factors are isolated, affecting the employees' performance and causing their fatigue:

- physical effort (weight movement or lifting, efforts of pressing the object of work, etc.). There are four levels of physical efforts: small, medium, heavy and very heavy;

- nervous tension (calculation complexity, high responsibility, intellectual loading, specific requirements to the quality or accuracy, danger to life and health, etc.). There are three levels of nervous tension: small, medium, high;

- pace of work (number of operation movements per a unit of time). There are three levels: mild, medium, high;

- working position (of the human body as to the means of production). There are four kinds of working position: limited, uncomfortable, uncomfortably, limited and very uncomfortable;

- monotony of work (multiple monotonous repetition of short-term operations, actions cycles). There are three levels: small, medium, high;

- temperature, humidity, thermal radiation in the working area. There are five stages of these factors' impact: negligible, increased (reduced), medium, high, very high;

- air pollution (impurities in 1 m³ or 1 liter of air and their hazard to the human health). There are five levels of air pollution: small, medium, increased, strong, very strong;

- industrial noise (noise frequency in hertz, noise power in decibels). There are moderate, increased and loud noise;

- vibration, rotation, pushes in the job site. There are three levels of these factors' values: increased, strong, very strong;

- illumination of the work area (in lux). There are two levels of this factor's values: insufficient and poor or dazzling.

The working conditions studies in the particular enterprise are performed in order, first, to identify trends and ways of their improvement and, secondly, to compensate employees for the harmful effects of working conditions on their health in the monetary or another form (higher wages, benefits in the pension system, special diet, reduced working hours, etc.).

The main objective of the study is the search for opportunities of creating proper conditions in the job sites for work the following fields:

- engineering (development of new machinery ensuring health protection and minimizing labor efforts);
- technologic (implementing new technological modes permitting to withdraw people from the direct working areas);
- organizing, psycho- physiological and social trends mean improving the working environment, raising interest in the work and its results;
- aesthetic (change of colors, sounds, light, shapes used in the production and implementation of artistic elements in them to produce a positive effect on the employee's general state at work and to improve the efficiency of labor).

Occupational safety is a system of legal, social, economic, organizational, engineering, sanitary-hygienic, medical and preventive measures and means aimed at protecting life, health and working ability of the employee in the process of work. Occupational safety at an enterprise is implementation of engineering (fencing dangerous production places, implementation of safety engineering, technological changes to eliminate dangerous to life and health operations), sanitary-hygienic (efficient luminance, creating a favorable microclimate in industrial premises, etc.), educational and information measures which ensure proper working conditions and labor safety.

Labor discipline is intrinsically necessary form of communication between employees participating in the common labor process. Its main requirement lies in the fact, that people involved in common or interconnected working processes, should follow a certain clearly-defined order of labor behavior.

In the strict sense, labor discipline is treated primarily as a compliance with the inner schedule's rules of the company. The exact implementation of all technology requirements for each production process means technological discipline. Timely and accurate implementation of production tasks, performance of job duties, proper maintenance of equipment, compliance with labor health protection and occupational safety is the content of the production discipline. Broadly speaking, labor discipline combines the above requirements and stipulates faithful implementation by all the employees of their job duties.

12.6. The essence and importance of work standardization. Objects of work standardization

Standardization (norming) of work is the foundation of its organization at the company. In the general definition, work standardization (norming) is an activity of management, aimed at establishing the best ratio between the costs and the results of work and between the number of workers in different groups and the number of the equipment units.

The content of work standardization (norming) at the company includes: production process analysis; its division into parts; selection of the best technology and work organizing variant; design of equipment operation modes, techniques and methods of work, job sites servicing systems, work and rest schedules; core working hours calculation in accordance with the features of technological and labor processes; their implementation and further adjustments due to changes in organizational and engineering conditions of employment.

Scientific substantiation of norms requires consideration of engineering and technological production capabilities, features of the work objects used, application of advanced forms, techniques and methods of work, physiologically justified intensity and proper conditions of work. Core working hours (worktime standards) is an integral part of remuneration structure at the company, it is an active means of ensuring the best balance between the amount of labor and the amount of its payment.

Any significant changes in technology and work and production organization must be accompanied by a change in the worktime standards. At work standardizing, one should take into account the interdependence of costs for different types of resources.

A variety of human work activity types causes a variety of work standardization objects.

The universal measure of work and the most widely-used object of its standardization is working time. It is regulated at different levels and by different kinds of standards. At the state-legal level, work time is standardized on the one hand, to provide a certain amount of work necessary to society for its normal life, and on the other hand to realize human rights for health protection, recreation and all-round personal development (which stipulates availability of spare time). At the microeconomic level, standardization of work takes the form of establishing standard time norms for implementation of specific manufacturing operations.

A form of worktime rationing is establishing the required number of personnel. In this case, as working time is also normalized, but not only for a single worker, but for a quantitatively defined group of employees.

The second group of work standardization objects includes workload establishing, service areas, as well as the norms of physical and nervous energy inputs. When rationing the amount of work, it is established in the form of a normalized task, usually in physical data, for a shift, for a month, an academic year and so on.

In industry, the common object of work standardization is a service area. It is determined by the number of production facilities, which efficient operation can be provided by a single worker or a team.

The input of employees' physical and nervous energy is the least explored among all the other objects of standardization. It can be characterized by the pace of work, by the level of the employees' engagement during the working

hours, fatigue indicators, etc. Among the existing standard materials to characterize these indicators, the most suitable are standards of labor hardness (which refers to the cumulative impact of all labor process factors on the human health).

The components of labor hardness is the work intensity, state of the working environment and others. The labor hardness standards are regulating the permissible load on the worker's organism and are used to justify the time standards for rest, to set compensation for the adverse working conditions, etc.

12.7. Work and rest schedules. Classification of worktime expenditures

Efficient use of time at the company starts with the establishment of the most appropriate regimes of work and rest, which is an important task of improving work organization. There are shift, daily, weekly and monthly regimes (schedules).

They are formed with a count of human workability, which varies throughout the day, which is taken into account primarily at the shift and daily schedules.

The shift work and rest schedule determines the duration of shifts, the time of their beginning and the end, duration, time of work breaks start and end.

The daily schedule of work and rest includes a number of shifts (cycles) per day.

The weekly regime of work and rest provides various work schedules, the number of days off per week, work on weekends or holidays, order of shift rotation.

The monthly regime of work and rest determines the number of workdays and days-off in the month, the number of employees getting leaves, duration of basic and additional leaves.

General requirements for working regimes are:

- compliance with the statutory general working time duration;
- ensuring the even alternation of working hours and breaks between the shifts, which is achieved by means of the shifts turnover cycle calculation: it is the period when all employees work out all their shifts envisaged by the schedule;

- ensuring full utilization of equipment and working time to improve labor productivity;

- limiting the number of shift rotation schedules at the company, because it complicates the management process.

To identify the reserves of rational working time fund consumption by the employees, classification of working time expenditures types is performed in the following fields:

- worktime and breaks at work;

- normalized and irregular working hours.

1. Working hours and breaks at work.

1.1. Working hours is the total duration of the shift time during which the employees perform their labor functions.

1.1.1. Time of the preparatory and final work taken to prepare for performing the assignment, and actions connected with its completion (getting the task, briefing, delivery of final products, etc.).

1.1.2. Operational time spent on the immediate performance of the working task is divided into:

- basic time: the time of the direct conversion of the work object;

- auxiliary time: the time spent to control equipment, data measurement, transitions, etc.

1.1.3. The time of job sites servicing:

- organizational service time spent on the job site's maintenance connected with the shift assignment performance;

- maintenance time spent on the job site's servicing connected with the performance of a particular job.

1.2. The break time is a total duration of the shift time when the employee does not perform labor functions for different reasons.

1.2.1. The regulated breaks time is previously provided and intrinsically required:

- breaks caused by peculiarities of engineering, technology and organization of production;

- breaks caused by labor legislation;

- time for rest and personal needs.

1.2.2. Time of unregulated breaks due to unforeseen, unwanted interruptions:

- breaks caused by shortcomings in technology and organization of production, such as supply problems, equipment malfunction;

- breaks due to the labor discipline violations (lateness, absenteeism);

- leaves on the administration's permission.

2. Standardized and irregular working hours.

2.1. Standardized working time includes all time expenditures that are intrinsically required to perform a particular task, and therefore are subject to standardizing.

2.1.1. Productive work time.

2.1.2. Regulated breaks time.

2.2. Irregular working hours are not intrinsically required, and therefore are not included into the Standards and include:

2.2.1. Unproductive work time.

2.2.2. Unregulated breaks time.

To register the results of the working time expenditures study, the appropriate documentation and processing information methods are used; if

necessary, photographic recording of the working day activities is made and stopwatch study observations are performed.

For the working day duration recording the indicators of its actual and normal duration are used. The actual working day duration is characterized by the time spent by a single employee working during a day (shift), including overtime hours and excluding idle hours. It is calculated by dividing the man-hours worked for a certain time period by the man-days worked.

Normal working day's duration is determined by the number of working hours set by law for a particular group of workers.

The labor utilization rate of working time is calculated by dividing the actual working day's duration by the normal one. The closer it is to 1, the higher the level of organization and discipline of work is at the plant.

Determining the actual time-expenditures on performing the operation elements is necessary for the standards of time developing, for analyzing the quality of rates and normative standards.

The most common methods for workflow research are: photographic recording of the working time, stopwatch study, photographic stopwatch study recording. The actual time expenditures are measured with a stop-watches, watches, registering chronometers.

Photographic recording of working hours is the process of studying and measuring each and every expenditures of working time during a working shift or its part. Depending on the object of observation the following types of photographic recording are distinguished:

- photographic recording of employees' time using (individual, group, brigade, selfie time recording sheet). While taking individual photos, the observer determines time used by a single employee during a work shift or some other period. Selfie time recording sheet is provided by the employee himself, who records the value of the working time losses and their causes.
- photography of operation time and breaks in the work of equipment;
- photography of the production process.

The purposes of photographic recording of the working time expenditures are:

- researching content, sequence and duration of all available working time expenditures;
- drafting the actual balance of working time and detecting its losses, unreasonable expenditures and their causes;
- determining the degree of employees' and equipment's workload;
- obtaining measurements for standardizing preparatory and final operations, time for job sites maintenance, leisure and personal needs;
- detection of advanced techniques and methods of work for their more thorough study and implementation.

The results of working hours photographic records constitute the working time balance (actual and reasonable), comparing their data helps identify

working time reserves and calculate possible labor productivity increase through better use of time.

In order to implement the detected reserves, organizational and engineering measures are developed to improve the use of working time and its economic-efficiency.

Photographic recording of the equipment using time is observation of its operation and breaks in it in order to obtain data to justify the servicing time expenditures (by a single worker or by a group of workers).

Photographic recording of the production process is a simultaneous study of the working time expenditures by the performers, time of using equipment and modes of its operation. Observations can be performed by two observers: one is watching workers, and another - equipment.

Stopwatch study is used to determine the duration of the production operation's elements that are repeated in cycles (normally, the main and the auxiliary time is studied).

At photographic recording and stopwatch study, the working time expenditures studies comprise the following main stages:

- preparation for observation;
- observation performance;
- data processing;
- analysis of results and preparation of proposals for improving the organization of work.

At the stopwatch study observations, the time-card is made to record operation elements, duration of the elements performance, number of observations, etc.

Multiple measurements are conducted for each element to determine its duration, and these measurements form series of stopwatch study chains. Measurements in each stopwatch study chain, usually have some fluctuations. Significant deviations in measurements indicate the presence of random measurements which should be excluded from the calculations. To assess the admissibility of the stopwatch study chain's fluctuations, the stability factor is determined as the ratio of the maximum to the minimum measurement in this particular stopwatch study chain. The actual value of the stability factor is compared with the normative one. The chain is considered stable, if the actual value is less than or equal to the normative one.

There are three ways of performing a stopwatch study: the continuous (current time-based), selective and cycle methods. The continuous method means that all the elements of a certain operation are studied according to their performance sequence. The selection stopwatch study method is used to study separate elements of the operation irrespective of their performance sequence. The cycle method is applied to study the operation elements with small duration (3-5 sec.).

Photometric stopwatch study is carried out in the cases where monitoring the composition and structure of the production process must be supplemented with high-precision duration measurements of some most important labor operations and workers' manipulations. Therefore, photometric stopwatch study is a combined method of observation that combines photograph taking and stopwatch study.

Depending on the way of observations treatment and processing there are two methods of working time photography: direct measurements method and the method of moment observations.

The direct measurements method is a direct registration of time expenditures duration according to the elements of the operation observed. Using the method of moment observations the state job sites is recorded. The structure of time expenditures is set depending on the number of moments when the appropriate states were observed.

12.8. The system of labor ratios and standards. Methods of work processes standardizing

A huge variety of work processes and conditions of their implementation requires more or less equal intensity of work at different in content and in complexity jobs. It is only possible if the labor standards are determined within a single regulatory framework, which consists of the universal standard materials developed by research institutions to be applied at various enterprises in developing labor effort standards for particular operations.

Standard Materials are the set of reference information necessary to determine the standards of labor effort for particular operation process by means of analytical and calculation method.

By the purpose and sphere of application, there are general, industry and local standards; by the degree of consolidation there are □ differentiated and consolidated standards.

To understand the contents of regulatory materials their type classification is the most significant:

1) Equipment modes standards are regulated quantitative specifications of the production equipment's operation modes to ensure its most appropriate application.

2) Time standards are scientifically based indicators of time expenditures on separate elements of the labor process. It is the most common form of standards, since working time is a universal measure of labor and the most widely-used object of its regulation.

3) Maintenance standards □are regulated values that characterize the ratio of personnel performing functions of certain objects maintenance, and the number of these objects.

4) Personnel number standards are regulated values that determine the number of employees of a particular job qualification necessary for quality performance of a unit or a certain amount of work.

5) Subordination standards are regulated values that determine the ratio between the number of managers and subordinate workers.

Most frequently they are used to determine the number of low-level managers (foremen, masters, senior masters and others).

If the work is performed at the company according to a typical technology, that has been worked in the sustainable organizational and engineering conditions at a number of enterprises performing the same types of operations, standard specifications are developed for these operations. They act as a reference standard for companies mastering this technology.

Particular labor standards for a certain work process are directly determined at the company on the basis of one or more labor standards.

The ratio is a function that establishes the correspondence between numerous norms and factors influencing them. Norma is a particular value of this function at fixed values of the factors.

Labor standards and also classified according to the following features:

- by the purpose standards are distinguished as norms of time, output, service, personnel number, subordination, the of the employees number ratio, standardized assignments;

- by the spreading area inter-sectoral, sectoral, regional and local standards are distinguished;

- by their acting period standards are single, temporary, seasonal, longstanding;

- by the level of detail there are detailed (micro-elementary, elementary and operational) and consolidated (comprehensive, typical, uniform) standards;

by the justification method standards fall under scientifically based (analytical) and empirically-statistic.

Time standard is the amount of work intrinsically required for a particular job performance (labor operations) in certain organizational and engineering conditions. There are standards of the preparatory-final time, job sites service time, operative, artificial, artificial calculation time, time for rest and personal needs, time for a set of products.

Output standard is the amount of products in physical indicators, which is to be produced within a unit of time in particular organizational and engineering conditions.

Service standard is the number of production facilities (vehicles, machinery, job sites, industrial area, etc.) that must be properly served by a single employee or a team per a unit of time.

Service time standard is the time set for a single particular facility servicing. The inverse relationship exists between the service standards and service time standard.

Personnel number standard is a number of employees of a certain professional qualification structure, designed for particular organizational and engineering conditions and required for proper performance of a unit or a certain amount of work for a certain period of time.

Subordination standard is designed for particular organizational and engineering conditions and sets values that determine the optimal number of employees directly subordinate to one manager.

Standardized assignments are designed for the particular conditions range and amount of work that must be performed by an employee (team) over a working period (shift, month, year). Unlike the output standards, standardized assignments can be set not only in physical indications, but just as well in working hours.

In the work standardizing practice experientially statistic and analytical methods are applied.

Experientially statistic methods stipulate setting standards in general for the whole scope of the work without analyzing the operations' elements and designing a rational organization of labor. The experiential method stipulates standards determining on the basis of personal experience of a norm setter, and the statistic method lies in setting standards on the basis of statistical data on the actual time spent on the performance of similar work in the past. Experientially statistic methods cannot be considered scientific ones, because standards are developed without the necessary analysis of actual working conditions.

Analytical methods are used for the scientific substantiation of labor standards by analyzing a particular work process. For this purpose, the operation being standardized is divided into the component elements; then the engineering, organizational, economic and other factors affecting the duration of each element are determined; further a rational structure of operation and the sequence of its elements is designed, taking into account the best combination of factors affecting their durability. Then time spent on each element is calculated, and their total, which determines the time standard for the whole operation, is calculated.

Simultaneously, organizational and engineering activities must be developed to ensure the implementation of the designed labor process and the established standard.

According to the method of obtaining the initial data, analytic methods are divided into analytically-computational and analytically-research ones. If the time spent on each element of the operation and on the operation as a whole is determined on the basis of standard materials (scientifically based intersectoral, sectoral or local standards), this method is called analytically-calculation. If the time spent on each element of the operation and the operation as a whole is set on the basis of direct measurements of these time expenditures in the studied job sites through photographic recording of the working time or by means of the

stopwatch study, this method is called analytically-research. Frequently there occur cases of simultaneous application of the both kinds of the analytic method.

In practice, analytically-calculation method is the most common one, because its application is less time consuming, permits the standard calculation before the labor process starts and helps develop the equally-stressed standards.

Thus, technically substantiated standards' feature is application of calculation methods permitting the extensive use of science and technology achievements, the best workers' experience in the improvement of labor and production.

Micro-elementary method of work standardizing used for norming of manual and certain machine and manual processes. By means of this method, the simplest elements, called micro-elements, that make up the complicated and varied by nature labor operations are isolated and studied. These micro-elements determine time expenditure standards, depending on the most important factors affecting their structure.

Achievement of the equally-stressed standards is an important and complicated problem. For its solution it is necessary to provide high quality and uniformity of standard materials, methods and techniques of work standardizing; sufficient qualification of engineers and work standardization experts; material and moral interests of workers in high quality labor standards.

In the market conditions, scientifically justified work standardization is one of the most efficient means to ensure the competitiveness of the company, as it helps reduce labor expenditures, savings on labor payment, and consequently, it reduces production costs and helps increase the economic efficiency.

Test Questions

1. Which elements does the work content consist of?
2. Describe the different types of labor division.
3. What is cooperation of work? What way is it related to the labor division?
4. What activities does the organization of job sites provide?
5. Name the main factors of the working environment, determining working conditions and affecting human workability.
6. What are the main objectives of labor protection?
7. Describe the socio-economic importance of labor discipline.
8. Explain the meaning and major objectives of work standardization.
9. Name and describe the objects of work standardization.
10. Disclose the structure of working time expenditures.
11. What methods of the working time study are used in the work standardization practice?

12. What are the standards? What kinds of standards for work regulation do you know?

13. What way are labor standards classified? Name their main types.

14. Describe the methods of workflow standardization.

Topic 13. Labor efficiency and productivity

13.1. The concept of labor efficiency, social and economic importance of its improvement.

13.2. Productivity and profitability of labor as the main indicators of its efficiency.

13.3. Indicators and methods of labor productivity measuring.

13.4. Factors and reserves of labor productivity increase.

13.5. Program of production performance management at the enterprise.

13.1. The concept of labor efficiency, social and economic significance of its increase

Labor efficiency is its efficiency. It reflects the ratio of the produced material and / or non-material benefits and the amount of labor effort spent on them. The growth of labor efficiency means increasing the amount of the benefits produced without increasing labor expenditures. Broadly defined, the growth of labor efficiency means continuous improvement of people's economic activities, permanent search for opportunities to work better, producing more goods of better quality at the same or even lower labor expenditures (costs).

Increase of work efficiency enhances real product and income, and therefore it is a very important indicator of economic growth. Since the increase of the social product per capita means higher consumption, and hence living standards, the economic growth based on increased productivity is one of the main goals of countries with social orientation of the economy. The results and costs ratio of human activity, generally called efficiency, is a major problem of the economic theory and economic practice.

Costs are determined by the value (cost) of the used economic resources. Economic resources can be divided into three groups:

- labor (human capital);
- natural resources components (land and raw materials).

Results are characterized by volume and value of the manufactured and sold products, the added value size, income and indicators of competitiveness, quality of life, environment and many other factors. The economic results are often expressed in the amounts of manufactured products or in the obtained profit values. If the in the efficiency calculation results are characterized by the amount of production (services), we have figures that are called productivity,

and if the results are characterized by size of income, such figures are called profitability (return).

The concept of efficiency does not only concern economic, but just as well social processes. Improving the economic efficiency is only reasonable if it leads to the improved and social results. The manufactured products and the obtained profits are not important in themselves, but only as a means of raising living standards.

General indicator of labor force using efficiency is labor productivity, which, like all the performance indicators, describes the results and costs ratio, in this case, the results of labor.

13.2. Labor profitability and return as the basic indicators of its efficiency

Labor productivity is an indicator of its efficiency, performance, characterized by the ratio of the amount of products, works and services on the one hand, and the amount of labor, spent on the production of this volume, on the other hand. Depending on the direct or inverse ratio of these values, we have two indicators of productivity, output and labor input.

Growth in labor productivity does not only determine the gross domestic product's dynamics, but it is also consistent with the principles of minimizing manufacturing costs per an obtained effect unit, and thus serves as the main criterion of the management performance at all levels.

At the microeconomic level labor productivity is one of the defining criteria and tools to reduce production costs and, on that basis, providing the efficient functioning of the company, its competitiveness in the national and foreign markets. Increase in labor productivity has to compensate higher wages of employees, thus harmonizing the interests of the social partnership parties. In this connection, productivity must be taken into account as an important element in the system of labor input indications assessment in the outcomes at all organizational levels of the company. The labor productivity dynamics reflects the success of the company in enhancing the human factor, in work incentives and staff development, modernization of the production process, increasing consumer quality of products, etc.

The level of the company's labor productivity is influenced by the level of extensive labor use, labor intensity, and engineering and technological production conditions.

Level of extensive employment demonstrates the level of its productive use and its duration within the working day at other characteristics unchanged. The more efficiently working hours are used, the less idle hours and other losses of time and the longer the working day is, the higher is the level of the extensive use of labor and productivity respectively. However, productivity growth due to

the extensive performance has strict limits: legally established working day and the working week.

Labor intensity describes the extent of its intensity and is determined by the amount of physical and mental human energy expended per unit of time. Increased intensity of labor also has limits, namely physiological and mental capabilities of the human body. This indicator of the labor process is physiological in nature, but at the same time, it reflects the state of industrial relations in the production. Its main difference from productivity is that productivity growth means less expenditure of an employee's physical and mental energy per unit (the same power consumption make it possible to produce more goods).

Labor intensity rising leaves energy expenditures per unit of output unchanged, although per a unit of time they grow. The level of labor intensity depends on the forms of its organization, regulation and payment; natural and biological factors (health status); national and historical background (in particular the relation of a person to work). Normal intensity of labor means a flow of vital energy a person spends during working hours, which can be completely restored until the next working day at really available for that particular person food quality, medical care, leisure time used, etc.

Level of the extensive labor use and the labor intensity are important factors of the labor productivity growth, which, however, have clear limitations, that is, they can not be used endlessly.

Source of the labor productivity growth is engineering and technological improvement of production under the influence of scientific and technological progress.

An important indicator of labor efficiency is the ratio of profit from a certain type of work activity and the respective labor costs. This ratio is called the return on labor, or more precisely, the profitability of the total personnel costs.

13.3. Indications and methods of labor productivity measurements

Output is a direct indicator of labor productivity, which is determined by the number of goods (works, services), produced by a single worker per unit of time and is calculated by the formula (13.1):

$$B = V: T, \quad (13.1)$$

where B is the output;

V is the volume of goods production (works, services);

T is the labor costs to produce the relevant volume of goods (works, services).

At an enterprise, the output can be determined by various means, depending on the units of measuring the production volume and labor costs.

If the output is measured by physical indicators (in pieces, tons, meters, etc.), the corresponding labor productivity indicators are called natural. Natural indicators are precise, very illustrative and demonstrative, but they have a major drawback: the inability to be applied to heterogeneous products. If a company produces several types of similar products, the output can be expressed in provisionally physical indicators, thus bringing different products to the common measurement (e.g., different types of fuel are converted into a provisional fuel with the calorific capacity value of 7,000 kcal / kg). However, the use of these indicators is also very limited.

To assess the level of output at individual job sites in the production of various unfinished products, labor indicators are also used, characterizing the production volume on the basis of labor cost standards in man-hours. However, these indicators have a very narrow scope of application, as they require strict scientific validation of the applied standards.

Labor costs at the productivity calculations can be measured by the performed man-hours, man-days and by the average personnel number. However, all the above indicators only display the amount of labor to say nothing of its quality.

Labor input is an inverse indicator of labor productivity that is characterized by the number of working hours spent per an item of product (works, services) and is calculated by the formula (13.2):

$$TM = T: V, \quad (13.2)$$

For planning and analysis of labor at the enterprise different types of labor inputs are calculated.

Technological labor input T_m is determined by the regular staff's labor costs. It is calculated for separate operations, details, products.

Service labor input T_o is determined by the labor costs of auxiliary workers engaged in the production maintenance.

Production labor input T_B includes of technological labor input and service labor input, thus displaying labor costs of the regular staff and auxiliary workers per a unit of work.

Management labor input T_u is determined by the labor costs of managers, experts, technical performers.

The total labor input of products T_n displays all labor costs for production of a each product's single unit. It is calculated by formula (13.3):

$$T_p = T_m + T_o + T_B + T_u, \quad (13.3)$$

According to the nature and purpose, labor input is distinguished as standard, actual and planned.

Standard labor input expresses labor costs on manufacturing a unit of production or a certain amount of work, calculated in accordance with current regulations.

Actual labor input expresses actual labor costs for manufacturing a unit of production or a certain amount of work.

Planned labor input is labor costs per a unit of production or performing a certain amount of work taking into account possible changes of the standard labor input by means of activities stipulated by the comprehensive plan of improving the production efficiency.

The higher the production output per a unit of time is or the less time spent per a unit of production, the higher level of labor productivity is. However, the percentage of the output increase is not equivalent to the percentage of the labor input reduction. The correlation between them is expressed as follows (formula 13.4):

$$\begin{aligned} \% \text{ labor input reduction} &= \% \text{ output increase} / \\ &/(100 + \% \text{ output increase}) \times 100; \\ \% \text{ output increase} &= \% \text{ labor input reduction} / \\ &/(100 - \% \text{ labor input reduction}) \times 100. \end{aligned} \quad (13.4)$$

The most common and universal indicator is output.

The economy-wide labor productivity (output) in the sphere of material production is determined by the relation of the newly created value's size - national income for a certain time period - to the average number of the personnel engaged in material production for a certain time period. In the service sector labor productivity (output) is determined by the ratio of the cost of services (without the cost material expenditures for their providing for a certain time period) to the average number of the personnel engaged in the service sphere for the same period.

13.4. Factors and reserves of the labor productivity increase

Factors of a specific indicator's changes are a set of driving forces and causes that determine the dynamics of this indicator. Consequently, factors of labor productivity growth are the whole set of driving forces and causes that lead to the labor productivity increase.

Productivity factors, determining its level, are associated with labor, resources and environment.

According to the level of manageability, labor productivity growth factors can be divided into two groups:

- those which can be run by the economic entity (management, organization, labor relations, skills and motivation of personnel, equipment and technology, working conditions, innovations, etc.);

- those which are beyond the economic entity's management sphere (political situation in the country and in the world, market relations development level, competition, scientific and technological progress, the general level of economic development, quality and quantity of the country's economically active population, culture, morality, social values, availability of natural resources, infrastructure development, etc.).

Economists also isolate two main groups of labor productivity factors: outer (which can not be controlled) and inner (which can be controlled).

The outer factors include political, social and economic aspects of the human society's development; government's decisions and institutional mechanisms, availability of finance, transport, communications and raw materials. They are beyond a separate company's control.

The inner factors are those which can be controlled by a separate company and fall under the two categories: "hard" and "soft" ones.

"Hard" (resistant, stable) factors include:

- product – its quality, purpose, design, i.e. the extent to which it meets the requirements put by the consumer, market;

- equipment and technology – implementation of new technologies, reducing equipment's downtime and raising efficiency of the existing production facilities, upgrade of equipment, eliminating bottlenecks etc.

- raw material – covers such important aspects as more efficient use of materials, improving the circulation materials rate, materials management, development of efficient supply sources.

"Soft" (variable) factors include:

- workforce quality, improving the efficiency of its use by means of further improving labor incentives, improved the workforce's division and cooperation, participation of all categories of workers in managing the company;

- organizational systems and methods: dynamics and flexibility of a company's structure, improvement of production and labor organization, labor methods;

- management style and techniques: their influence on organizational structure, human resources, planning of the company.

External factors influence the company's strategy and performance. Thus, improving the government's fiscal policy, labor legislation, social infrastructure, pricing policies, ensuring more efficient manner of natural resources consumption motivate taking the appropriate decisions on structural, organizational and technological functioning of the company.

Since work is a process of workforce's interaction with the production means, factors of labor productivity growth can be divided by content into three groups:

- socio-economic, determining the quality of the labor force employed;
- logistic, determining the quality of production;
- organizational and economic, determining the efficiency of labor in combination with the production means.

The group of socio-economic factors of labor productivity growth includes all factors that result in improving the quality of labor force. These are primarily such characteristics of employees as the level of qualification, professional knowledge and skills; competence, responsibility; health and mental capacity; professional competence, adaptability, focus on innovation and professional mobility, morality, discipline, motivation state (the ability to respond to external stimuli) and motivation (internal desire to perform work to a good quality). This group of factors also comprises characteristics of labor, such as labor activity, teams, such as labor activity, creative initiative, socio-psychological climate, system of values.

The group of logistic factors, determining labor productivity growth, includes all fields of progressive changes in the equipment and production technology, namely: modernization of equipment; use of new more efficient machinery; raising the level of mechanization and automation of production; implementation of new advanced technologies; use of new, more efficient types of raw stuff, materials, energy and so on.

The group of organizational and economic factors of labor productivity growth comprises progressive changes in work organization, production and management. These include: improving the management staff's structure and production control systems, the all-round implementation and development of automated control systems; improving financial, engineering and personnel production support works, improvement of production and support departments; improving cooperation and division of labor, expansion of combining skills and functions, implementation of advanced methods and skills of work, improving the organization and maintenance of job sites, introduction of progressive labor standards and norms; improving conditions of work and rest, improvement of material incentives systems.

According to the sphere of origin and the action, factors of labor productivity growth are divided into:

- intraproductive factors, that appear and act directly at the level of an enterprise or organization;
- sectoral and inter-sectoral, concerning the ability of improving cooperative relations, concentration and integration of production, mastering of new technologies and industries at the level of the whole sector or several adjacent sectors of the economy;
- regional factors of the labor productivity growth, typical of the given region (such as creation of free economic zones);

- national factors, causing the labor productivity growth around the whole country (e.g. health promotion and raising the educational level of the population, rational use of labor potential, etc.).

Reserves of the labor productivity growth are the opportunities of its improvement that are displayed, but for various reasons have not been used yet. Reserves are used, and they emerge again under the influence of scientific and technological progress. Quantitatively, reserves can be defined as the difference between the maximum possible and the actually achieved level of labor productivity at a particular moment. Thus, using of the labor productivity growth reserves is a process of converting the wish into the reality.

For an economist and a manager, primarily significant is classification of intraproductive reserves and factors of the labor productivity growth by their content, because it directly helps identify opportunities of raising the labor productivity at a particular company.

In common with the factors, the reserves of labor productivity growth are divided into three groups by their content:

- socioeconomic, determining the possibilities of improving the quality of the labor force used;
- logistic, defining the possibilities of using more efficient means of production;
- organizational and economic, determining the possibilities of improving the combination of labor force with the means of production.

For the most complete use of the labor productivity growth reserves, software programs for labor productivity management is developed at enterprises, indicating types of reserves, particular terms and measures for their implementation, planned spending on these measures and the expected economic effect of their implementation, responsible performers appointed.

13.5. Programs for labor productivity management at the company

The essence of the labor productivity management lies in creating conditions for its growth. Meanwhile, raising the productivity is a process of changes in the economy. Therefore, to improve the labor productivity, it is necessary to manage changes, i.e. to generate, motivate, and stimulate them. It is important to plan and coordinate the scale and intensity of changes in all major organizational elements, including employment, personnel structure, skills and education, technology and equipment, products and outlet markets.

These changes should promote both the growth of productivity and the growth of organizations' activities efficiency. Orientation to achieve the best final results is the best style to create the labor productivity management system and to operate it.

The main functions of the labor productivity management are: determination of the goals, organization of the labor productivity management program.

Taking into account the primary importance of raising labor productivity for the enterprise's competitiveness, managers and specialists at all levels must develop and implement labor productivity management programs.

Successful implementation of long-term management programs is greatly influenced by the quality of the planning process at the early stages of the programs development.

The objectives of the program are:

- effective use of human resources;
- minimizing production losses;
- creating an efficient system of the labor productivity measurement, i.e. determining the limits and goals indications of the whole system.

Each approach to the labor productivity raising includes:

- organizational forms of labor productivity raising;
- spheres of labor productivity raising;
- means and methods for improving labor productivity.

Programs of the labor productivity management at an enterprise include the following steps:

- measuring and assessing the achieved level of productivity at the enterprise as a whole and by certain types of work in particular;
- search and analysis of the productivity raising reserves based on the information obtained as a result of measurement and assessment;
- development of the plan for using the labor productivity increase reserves, which is to include particular measures and their implementation deadlines, stipulate funding of the costs for these measures and the expected economic effect from their implementation, appoint responsible performers;
- development of the employees motivating systems to achieve the planned level of productivity;
- monitoring of implementation of the measures, stipulated by the plan and by the whole program, and control over their implementation;
- measuring and assessment of the real impact of the stipulated activities on the labor productivity growth.

Measurement and assessment of the labor productivity achieved by the company as a whole and for certain types of work in particular is the initial stage of the program. Its correct and precise implementation is an important prerequisite for the success of the further phases and that of the entire program. The most important requirement to the economist at this stage is ensuring the reliability and comparability of indications.

Search and analysis of the labor productivity growth reserves is based on comparison of the information obtained in the course of the measurement and assessment of the labor productivity level achieved at the company as a whole

and for certain types of work in particular, with the available information on the highest possible level of labor productivity for similar works.

While developing the plan of using the labor productivity growth reserves, one should ensure the coordination of the goals and objectives of the program. To do this, it is necessary to formulate goals briefly and clearly, to rank them according to their importance and priority order in time. The plan should also include particular measures aimed at achievement of the goals set, stipulate funding of the costs for these measures.

An important task of an economist at this stage is to develop criteria of the program performance, calculation of the expected economic effect from the implementation of the planned measures. For each point of the plan the deadline and the responsible performers should be defined.

Development of the employees motivating systems to achieve the planned labor productivity level is a necessary requirement of the program implementation. In the particular case, the profit gained from the increased labor productivity must be shared between the organization that has provided its achievement, and the worker, who has achieved it. Employees must know in advance, what way the results of the planned labor productivity growth will influence the realization of their personal professional interests (wage growth, promotion, etc.).

Monitoring the implementation of the measures, stipulated by the plan and the whole program, is required to identify and solve potential problems of their performance at the early stages, before these problems become too serious. In the process of monitoring, actual and planned indicators of labor productivity or their components are compared, the scale of the permitted deviations is determined. With a significant deviation the manager takes the decision on the system's regulation. While organizing monitoring, attention should be paid to the feedback, reality of requirements, interest of employees, economic feasibility of control systems.

Measurement and assessment of the real impact of implemented measures on the labor productivity growth are required to estimate and compare the efficiency of their implementation and to determine the priorities for the next period.

Thus, labor productivity management is a complicated integral objective, equally important for organizations of any sphere of activity and of any size, if they intend to succeed in the market competition. The implementation of this objective depends on the competent and coordinated work of economists and managers at all stages of the program.

Test Questions

1. What is the essence and the socio-economic importance of the labor productivity growth?
2. Disclose the meaning of the "labor productivity" and "labor efficiency" concepts.
3. Describe the output as one of the labor productivity indicators.
4. What kinds of labor inputs do you know? What are they determined by and what are they used for?
5. What are the factors of the labor productivity growth?
6. What are the labor productivity growth reserves?
7. Name and describe the main stages of the labor productivity management program at the enterprise.

Topic 14. Income policy and wage

- 14.1. The cost of labor. Personal income.
- 14.2. Essence, functions and principles of the organization of wage.
- 14.3. The wage's structure. Organization of the labor compensation elements.
- 14.4. Forms and wage system.
- 14.5. The tariff system of the organization of wage.
- 14.6. Tariff-wage model.

14.1. The cost of labor. Personal income

The cost of labor - a collection of the entrepreneur the costs associated with the use of the workforce, providing indispensable for his health, vocational qualification training, family support and parenting, spiritual development, and etc.

The structure of labor costs includes direct wage; kind payments, employers provide workers; employers' expenses for social insurance and severance payments (payments in connection with the expiration of the employment contract); the costs of professional development; spending on social and personal services; taxes are considered as labor costs.

The cost of labor is the average equivalent of a typical representative of the associated livelihoods of people, united by common goals and interests, living conditions and the results of labor, the level of intellectual and cultural development.

The price of labor services is considered, on the one hand, the market value of this specific product, but on the other - as a part of the actual employer's labor costs.

Employer's labor costs consist of direct and indirect costs. The former include the wage for time worked and other payments for time not worked (such as paid vacations), wage (tariff income, official fees, bonuses, allowances and additional payments), taxes (payroll, income), employers' costs social insurance (voluntary, contractual, private insurance), the cost of professional development (training, retraining and skills), natural benefits (food, housing costs, etc.) on social and personal services costs (canteens and other places at the enterprises food, cultural services and similar services).

The price of labor determines the totality of the means of subsistence necessary for the reproduction of the labor force in terms of money. Depending on the labor market price of labor may deviate from its value. It depends on the labor market, demand and supply of labor, the educational level of the worker.

Wage as a socio-economic category is the main source of workers' cash income. It provides not only the reproduction of labor power, but also becomes an important factor in the reproduction of social production and is the main regulator of the labor market.

The essence of the income policy is to direct the establishment of such a state the upper limit of the increase in nominal wage, which would contribute to the implementation of the main objectives and priorities facing the economy.

Incomes in market economy make up the totality of monetary and in-kind resources income for a certain period of time used by individuals for consumption and accumulation.

Money income of the family is a flow of funds in the form of wage, social transfers, property income, and business activity, sale of products private farming and other (maintenance, fees, charitable assistance, etc.) for the certain period of time.

Natural income includes, in particular, products produced by households for their own consumption.

An indicator of material well-being of the population is the total revenue. This cost parameter includes: wage, social transfers in cash, property income, income from business activities, revenues from sales of products to private farming, the cost of natural income from private farming, the cost of free services; other income (alimony, royalties, and other charitable assistance.).

Cash incomes are divided into current and primary.

The primary public revenues include all revenues derived from the ownership of the factors of production.

Disposable income - the result of redistribution processes. They are calculated using the supplied primary incomes and social transfers deducting obligatory payments and fees.

The policy of income and wage should take into account the dynamics of nominal and real incomes placed. Nominal income includes the entire amount of final income. To determine the real disposable income, the nominal income divided by consumer price index.

Consumer Price Index - a change in the cost of basic consumer goods and services for a certain period, expressed as a percentage.

Depending on the sources of income can be labor and non-labor.

According to the ILO definition, the labor income - is the income that the employee receives as a result of its economic activity as hired labor, or in the case of self-employment. We should also distinguish between earned income from main employment and income from secondary employment.

Unearned income - the income from activities that lead to a deviation from the state legal norms accepted in society, morality and behavior of citizens.

In the current circumstances, a significant portion of the proceeds are hidden. They are linked to the shadow economy are hidden economic activities.

Objective characteristics of monetary income level - is their compliance with the minimum subsistence level. The living wage is a measure of volume and structure of consumption of material goods and a minimum level of services.

A living wage is out of the basket of food and non-food goods and services, taxes and other payments. The total minimum amount demands of this kind – the minimum consumer's basket. His valuation – the consumer's budget minimum. It serves as the basis for calculating the minimum wage in the country.

An important indicator of the standard of living is the cost of living and level of consumption.

The cost of living is the size of the cost of material goods and services, which are vital to man.

The level of life - a socio-economic category, reflecting the degree of development and meet the physical, spiritual and social needs of the population, as well as the conditions for the development of society and to meet those needs.

According to the ILO recommendations, the standard of living reflects the following characteristics: size of the fund of consumption per capita real income, life expectancy, education, consumption of major products in kind, housing, utilities and social services, transport and communication; health, social security. Based on international standards, should also be considered: employment and working conditions applicable social security, demographic, environmental conditions, household goods and the like.

The level of living is determined in the whole country, in certain regions and social groups. In world practice, the standard of living for the characteristics of the use of such an integrated indicator as Human Development Index, this includes three indicators: national or gross domestic product per capita (GDP), life expectancy and educated population. These values correspond to the highest international levels of these indicators.

The level of life depends on the economic potential and is largely determined by the size of GDP and the structure of its use. The source of the improvement of living standards of the population is the growth of the national

income, which is part of the total social product after deducting consumed during the production of the means of labor and material costs, as a newly created value.

In order to characterize the living standards used poverty indicators: absolute and relative. The absolute poverty of the poorest households is unable to provide themselves with the necessary amount of goods which are necessary for the health and for maintenance of a moderately active life.

14.2. Essence, functions and principles of the organization of wage

The wage – is a reward, calculated, usually in monetary terms, which is in accordance with the labor contract owner or the authorized body shall pay the employee for the work performed.

From the standpoint of economic theory, wage is an economic category, which reflects the relationship between an employer and an employee about the distribution of the newly created value. In this sense, it is a relevant concept of "pay", which, besides the wage, the employer includes other labor costs.

In the market economy of the wage - is an element of the labor market, which develops as a result of interaction between the labor demand and supply, and expresses the market value of the use of hired labor.

From the standpoint of the employee's wage - the main part of his earned income, he receives as a result of the ability to work and which should provide the necessary objective reproduction of labor power.

From the standpoint of the entrepreneur wage - an element of production costs, while the main factor providing material incentives to achieve high-end results of labor.

The essence of wage shown in the functions it performs in the process of social reproduction. The most important of them are recognized as such.

- Reproduction function is to ensure that workers and their families needed to restore the vital benefits of labor, for the reproduction of generations.

- Stimulating function of wage is to establish its size depending on the quantity and quality of a particular employee's labor, his labor contribution to business outcomes.

- Control function of wage is to optimize the placement of the labor force by regions, industries, businesses, taking into account market conditions.

- The social function of wage reflects the degree of human labor in the distribution of fund of consumption between the employees and the owners of the means of production.

- The optimization function of wage is that wage, as a component of production, is a factor motivating entrepreneurs to the management of labor, continuous improvement of its performance by improving the material and technical, organizational, economic and socio-economic factors of production

- Function formation of effective demand of the population. Its purpose is the coordination of effective demand, which refers to the shape of the identification of needs, secured cash buyers, on the one hand, and consumer's on the other.

Wage - a mechanism for determining a wage for hours worked during working hours, and other benefits, which are guaranteed by contractual agreements for time not worked. There are nominal and real wage.

Nominal wage - is the amount of money paid to employees for the amount of work performed in accordance with the quantity and quality of labor expended by them.

The real wage is a set of material and cultural goods as well as services can be purchased for a nominal employee wage. Size of real wage depends on the nominal wage and price levels for consumer goods and services.

14.3. The structure of wage. Elements of the organization wage

Wage as a reward, calculated in terms of money, which is under an employment contract the employer shall pay the employee for the work performed, consists of the following components: basic wage, additional wage and other incentive compensation payments.

Basic wage - remuneration for work performed in accordance with the labor standards (standards of time, production, maintenance duties). It is installed in the form of tariff rates (salaries) and piece rates for workers and salaries for employees.

Extra wage –is the remuneration for work in excess of the norms of labor progress and inventiveness and for special working conditions. It includes bonuses, allowances, warranties and compensations stipulated by the current legislation; awards related to the implementation of production tasks and functions.

The other incentive and compensation payments are in the form of payment of remuneration for its performance in the year, on special schemes and the provisions of the premium, compensatory and other monetary and material benefits, not stipulated by acts of the current legislation, or carried in excess of the specified acts norms.

The structure of wage - is the ratios of the individual components of wage in general its entirety. The stable development of economic systems, the basic wage is 85 - 90% in the wage structure.

The funds allocated for wage, form the wage fund, which, in accordance with the standard consists of the main fund and fund additional wage.

Organization of payment - is bringing the constituent elements of the mechanism in a certain system and the establishment of interdependence between them, thus ensuring compliance with the principles of the organization of wage and implementation of its functions. Under the wage organization

understand the specific procedure for establishing and payment of wage. The main elements of the organization wage are rationing; tariff payment system; form and payment system.

The purpose of a payment institution is a differentiation and regulation by staff categories, depending on the complexity, severity of work, working conditions, as well as individual and collective results of work while ensuring guaranteed in general, sectoral collective agreement transactions and earnings for the implementation of labor standards.

The main task of the organization of wage is to find a balance between the public and the contractual wage regulation.

The principles of the organization of wage - is objective, science-based position, reflecting the operation of economic laws aimed at the largest possible implementation of the payroll functions.

To ensure the implementation of the wage above functions you must comply with the following essential principles:

- Increase in real wage with increasing the efficiency of production and labor.

- Wage's differentiation depending on the employee's contribution to the business results, on the content and working conditions of the enterprise location, its industry sector.

- Equal pay for equal work.

- State wage regulation, including legislation and agreements in the sphere of labor, the tax system, the establishment of the relationship between individual incomes and inflation dynamics.

- Accounting for the impact of the labor market. The wage of each employee is closely dependent on its position in the labor market, the ratio of supply and demand of a certain quality of work.

- Simplicity, consistency and availability of forms and pay systems, a broad awareness of employees about the nature of a payment system.

The subjects of the organization wage are: public authorities and local self-government; owners, associations of owners or their representative bodies; trade unions, associations of trade unions or their representative bodies; workers.

The main elements of work organization at the enterprise level is the regulation of labor, tariff system, forms and systems of wage and agreements and contracts at different levels of the economy. All of these elements have their purpose and are closely interlinked.

The level of individual wage of workers, depending on their qualifications, working conditions, industry characteristics set using the tariff system.

The relationship of quantitative and qualitative indicators of employees' earnings applies with the help of forms and payroll systems to communicate. They define the procedure of calculation and payment of wage and material help

to the promotion of workers in the growth of labor productivity, increase production efficiency.

In an economic system based on various forms of ownership and management, the mechanism of wage organization consists of the following elements:

- market regulation;
- state regulation;
- collective bargaining through the conclusion of the general regulation, sectoral, regional agreements; collective bargaining at the enterprise level; labor contracts with employees;
- mechanism for determining individual wage directly to the company (structural unit) using elements such as the tariff system and tariff-free model, normalization of work, forms and systems of remuneration and bonuses.

Compliance with requirements to ensure the necessary wage increases by reducing its costs per unit of production is at the same time guarantee the growth of labor income of employees and increase production efficiency (*ceteris paribus*), which corresponds to the interests of all participants in the labor process and market requirements.

Just work on the organization of wage in the enterprise is to select the model of wage formation (tariff or tariff-free), the choice of forms and payroll systems, the development of terms and conditions of bonuses.

14.4. Forms and wage system

Forms and wage system - a mechanism for setting the size of earnings, depending on the quantity and quality of work and its results. When choosing a certain form of wage and a specific system for generating earnings, the employer controls the intensity and quality of work of individual employees.

There are two main forms of wage: time-based, and piecework.

With time-based form of wage labor measure acts hours worked and worker earnings calculated in accordance with its tariff rate or the official wage for the time actually worked.

When piecework form of wage labor is the measure of employee elaborated products (or the amount of work performed), and the size of earnings is directly proportional to its quantity and quality, based on the established piecework rates.

Systems of wage characterize the relationship wage elements: the tariff part, bonuses, allowances, bonuses.

In our country, the most common in industry are those of the wage system.

- a. per hour -

1. Simple hour rate wage (W depends on the tariff rate R, which corresponds to an employee assigned to the tariff category, and spent their time T):

$$\text{Wage} = R * T \quad (14.1)$$

2. The time wage (TW earnings depend on the tariff rates of C, H and spent time bonuses for the achievement of certain quantitative or qualitative indicators P):

$$TW = R * T + P \quad (14.2)$$

3. Payment of the monthly official salaries applies to employees whose work has a stable character (technical artists, some office workers) and for managers and specialists. This remuneration may also be simple (all income consists only of fixed wage) and premium (income consists of fixed wage and bonuses for achieving targets that encouraged).

b. travel expenses -

1. Simple travel expenses (TE piecework earnings are calculated by multiplying the number of output C on its price P):

$$TE = C * P \quad (14.3)$$

2. Job rate with bonus (wage JRB includes piecework earnings TE and awards for achievement, encouraged, - B):

$$JRB = TE * B = C * P + B \quad (14.4)$$

3. Performance pays PP (work carried out within the established norm, to be paid on ordinary rates PIC and work performed above the norm-AN- at progressively increasing pricing PP):

$$PP = No * Po + AN * P \quad (14.5)$$

4. Indirect piecework payments (worker's wage IPP depends on the results of work of employees who are served by them (coefficient of performance output norms):

$$IPP = P * T * CPON \quad (14.6)$$

5. The lump-sum (wage size is set for the execution of the work on the definition of the execution period).

6. The lump-bonus (also provides Prize for the quality or the early works).

7. A special kind of travel systems pay is the interest at which the size W is set as a proportion (percentage) n certain parameters P (the results are encouraged, - revenue, turnover, profit, profit, etc.):

$$W = n * H$$

(14.7)

This list is not limited to the diversity of wage systems which can be used in specific circumstances. Selection or development of a particular system of wage is the prerogative of the employer.

The use of collective (brigade) forms of remuneration requires a balanced approach, differentiated because the methods of distribution of collective earnings should correctly reflect the labor costs per employee. Most often, the collective income is distributed among members of the team, taking into account factors of labor participation (ILD), which are installed at the end of each month at the general meeting. In determining the ILD should take into account productivity, product quality, adherence to labor and production discipline, performance of official duties. It is advisable to apply the collective forms of remuneration, where the union of workers in the labor collective is due to technology, that is, to perform a technological complex, collective efforts of all employees, and the final results of production is a direct result of their work.

14.5. Wage tariff system of the organization

The basis for remuneration of the organization is the tariff system, which is a set of standard materials with which set the level of wage of employees depending on their qualification, complexity of work, working conditions.

The tariff system is used for the allocation of work, depending on their complexity and the employees depending on their qualifications and responsibilities of the ranks of the tariff grid. It is the basis for the formation and differentiation of wage.

Tariff system of remuneration includes: tariff scales, wage rates, allowances and additional payments to tariff rates, wage schemes and tariff-qualification characteristics (Reference).

Tariff grid – is the scale qualifying categories and tariff rates, by which established a direct dependence of wage of employees of their qualifications. Each category corresponds to a tariff qualifying factor, showing how many times the tariff of the discharge rate exceeds the tariff rate of the first category. The tariff rate of the first category is always equals to one. The number of qualifying grades and coefficients determined by the complexity of production and works carried out and negotiated in the collective agreement.

To pay for the labor leaders, technical experts and artists used the scheme of salaries, the size of which is set depending on the positions held by their

qualifications, working conditions, the size and complexity of production volumes, complexity and importance of the work. A feature of the application of the company scheme of salaries is to develop a staffing internal normative document, which provides a list of positions available at this enterprise, number of employees for each of them and the size of their monthly salaries.

The tariff rate is expressed in monetary terms the absolute wage per unit of time. The tariff rate of the working first category is caused by the collective agreement and depends on the financial capacity of the enterprise and on the conditions of payment established by the industry and the general tariff agreements. In any case, it cannot be less than the statutory minimum wage. On the basis of the tariff system and the tariff rate of the working first category is calculated tariff rates for each of the next discharge. The tariff rate is the reference value for establishing the level of workers' wage regardless of what form and payment systems used in the enterprise. Depending on the chosen time unit tariff rates are hourly, daily and monthly (salaries).

Tariff-qualification reference works and professions of workers, united in a single tariff-qualification reference (STQR) is a collection of normative documents containing qualifications of jobs and occupations, grouped in sections on the industries and types of work. With the tariff-qualifying directories conducted charging work (set bit operation), it assigns qualifying discharges workers formed the training program and the training of workers.

Qualifying handbook for managers, professionals and employees is a normative document, which accommodates industry-wide qualification characteristics. They specify duties, requirements for knowledge and professional experience, level and profile training of managers, professionals and technical artists.

Depending on the working conditions at the plant are used different types of bonuses and allowances, which are part of the tariff system, which varies.

Allowances related to the quality of the concrete worker and have a pronounced stimulatory.

Extra payments related to the characteristic of the scope of work and have a compensatory nature.

Businesses, organizations have the right to independently develop and apply a premium position.

14.6. Tariff-wage model

Tariff-wage system - an organization of work based on the principle of equity distribution of funds earned by the collective pay between workers in accordance with the relations (ratios) in the payment of the labor of different quality (depending on qualifications, positions, specialty workers, etc.). They are not used guaranteed tariff rates and salaries, most types of awards, bonuses and allowances. The level of payment depends on each employee's wage bill of the

enterprise. Each employee receives his share according to the final result of the organization's activities and its position on the market of goods, promotes interest in the affairs of the organization.

Tariff-wage system are flexible, simple and easily understood by all employees, provide them with an interest in the outcome of labor. Widespread it received in corporate, small and private enterprises in various versions and models.

Individual wage per employee - is its share (share) in the payroll, which is earned by the whole team.

A variety of tariff-free wage system is a contract system - conclusion of an agreement (contract) for a certain period between the employer and the contractor. The agreement stipulates the working conditions, rights and obligations of the parties, working hours and the level of remuneration, as well as the duration of the contract. The agreement laid out and the consequences that might ensue for the parties in the event of early termination of the contract by one party. The contract may include time spent as a worker at the company (time payment) and a specific task to be performed by the employee within a certain time (piecework payment). The main benefit of the contract system – is a clear distribution of rights and responsibilities as an employee, and the company's management.

Test Questions

1. What does the of the population living standards system include?
2. What are the factors that are involved in the formation of incomes?
3. Expand the essence of wage, its functions and principles.
4. What is the wage fund? What are its ingredients?
5. What are the differences between nominal and real wage?
6. Tell and describe the function of wage.
7. What principles should be observed in the organization of wage?
8. What are the elements of the mechanism include the organization of a payment?
9. What forms and the wage system do you know?
10. Describe the components of the tariff labor compensation system.
- 11 In what economic conditions it is more expedient to apply the tariff-free model of the organization of wage?

Topic 15. Analysis, reporting and audit in labor sphere

15.1. The main point and targets of labor key figures economic analysis.

15.2. Accounting and reporting in labor sphere.

15.3. Audit in labor sphere.

15.1. The main point and targets of labor key figures economic analysis

Economic analysis as a science is a system of knowledge related to research of economic processes, which are formed under the influence of objective economic rules and subjective factors; the scientific substantiation of business plans and objective assessment of their implementation; with the identification of positive and negative factors and quantitative measurement of their influence; finding trends, the ratio of economic development, the evaluation of unused farm reserves; generalization of best practices, adoption of best management decisions.

Economic analysis is an important component of scientific reasonable planning, management and control, and the transition to a market economy promotes their importance for successful management.

Economic analysis of labor indicators is conducted in enterprises for the purpose of permanent monitoring of the work and salary plan implementation and to identify internal reserves to increase production efficiency.

There are following objects of investigation analysis of labor indicators:

- Employment indicators are labor power provision and productivity.
- Factors and ways of intensification and improvement of work efficiency.
- The influence of labor indicators on the final results.

In the labor field analysis of labor factors makes it possible to combine and link individual factors with each other to evaluate the impact of each factor and set of all factors on the general effectiveness of labor.

The main factors characterizing the efficiency of labor are:

- the level and dynamics of labor effectiveness;
- saving of human labor (number of employees) in ratio to planned purposes;
- labor effectiveness growth;
- part of output growth as a result of labor effectiveness growth;
- capital-labor ratio;
- the ratio of the labor effectiveness growth to average salary.

15.2. Accounting and reporting in labor sphere

All processes in public production should be controlled. Accounting provides the competent authorities with necessary information, conducts registration and controls all operations related to the quantitative and the qualitative production.

In the field of labor and its payment accounting provides:

- Accounting and control of employees, the use of working time, actual efficiency of all workers;
- Accounting, evaluation and allocation of costs in the context of business units and goods;
- Payroll accounting to each employee according to the existing pay systems;
- Providing use of payroll in accordance with regulatory requirements.

More detailed reporting if it is necessary is formed in management accounting for internal use. The source of data for reporting is time-board accounting, information about gross payroll and other information from primary and analytical accounting.

Reporting is a specific form of receiving the information in the process of implementing management functions. In the field of labor accounting reflects the dynamics of labor factors and efficiency of management process in the enterprise.

Factors in labor field are set in the form of reports and widely used in work within the enterprise and beyond it – in the local, regional, sectoral and national levels of management.

Factors accounting at the enterprise is divided into statistical and operational, it can have different directions of use and frequency of complication. The widest and reliable information on the results of the labor programs implementation, management and development of personnel state is provided by statistical reporting companies on labor issues.

At the enterprises labour economist works on the compilation and prompt reporting on labor.

Reported financials, staff office statistics, certificates of audits are used for analyzing. Prompt reporting is done to meet the current needs of the enterprise in data about labor and labor relations. On its base adoption of strategic and development of prospective decisions about staff changes in the company, changes in the size and staff structure, productivity and motivation of work in the company, social and economic development of the work staff are made.

15.3. Audit in labor sphere

Audit in the labor sphere is a system of methods to collect the information, its analysis and assessment on this basis the effectiveness of the company and social and labor relations' regulation and their compliance with the criteria of the current Ukrainian legislation.

The purpose of auditing is the problem of economic and efficient use of labor resources. Auditing should identify the problems arising in the organization, investigate their reasons and develop recommendations for their removal.

The object of the audit in the labor sphere is a staff, attendant and their activity. Audit permits to make sure in compliance of the mutual responsibility of enterprise staff management and development strategy, as well as mutual compliance in the regulation of social and labor relations and the laws, rules, regulations and procedures that define this activity. In the results of the audit work guidance for establishment, changes or improvement of standards can be defined. The inspection contributes to staff changes that improve the quality of the labor resources, the promotion of the most promising employees and the development of creative activity.

Audit in the labor sphere can be considered in three aspects:

- organizational and technological – inspection and analysis of factors showing the legitimacy and effectiveness of the company;
- social and psychological - is an evaluation of social and labor relations in the company, including not only the documentation, but individual poll, questionnaires, individual and group interviews, interviews with employees of different levels and categories;
- economic – defining competitiveness in the labor sphere, that is measured by comparing the economic and social activity factors of the enterprise by legislatively established norms and regulations or with the best factors in similar enterprises;

Like financial audits, audit in the labor sphere should be performed from time to time to ensure the achievement of tasks.

The sources for the auditor's review and analysis are:

- The information of labor and salary department, planning department, bookkeeping;
- certificates of audit and inspections;
- staff department documents - explanatory notes, minutes of production conferences, letters, admonishes, notifications and complaints of workers and surveys, interviews and sociological tests.

Audit in the labor sphere classified according to the following criteria:

- periodicity;
- coverage of objects studied;

- depending on methods of analysis.

According to the periodicity audits divided into:

- current in accordance with the regulations established for a certain period of time;
- strategic provides efficient instructions of executive group;
- systematic is conducted at a specified time and repeated after a certain period of time;
- one-time estimated during reduction efficiency of the enterprise.

Depending on the coverage of objects studied, the audit can be:

- full - covering aspects of labor;
- local - carried out on certain objects;
- topic - analyzes all objects and audit due to the arisen problem.

Depending on the methods of analysis audit is divided into:

- complex - used all known methods are used;
- continuous - the amount of work performed by all employees of the company is inspected;
- selective - workers elected by a special technique are inspected.

Audit of employment factors is performed according to plan and it is usually done in four stages:

- preparatory phase, which involves the development of inner documents (decrees, orders, which set deadlines, tasks, executives and members of the audit) and plans and programs of analyzed information review ;
- gathering information - observations, measurements, interviews, processing of statistical data, comparing accounting and other data;
- processing information - comparison of labor management in similar enterprises, determine the reasons of employee turnover, identification and explaining loss of working time, etc;
- generalization and presentation of evaluation results, conclusions and recommendations to the customer.

There are many instructional techniques of audit which involves the use of a various schemes of analysis methods combination and generally characterize the audit infrastructure in the labor sphere.

That is why the audit in the labor sphere includes:

- staff management effectiveness audit, which use a variety of techniques that allows to evaluate the effectiveness of staff management actions in terms of value;
- audit of effectiveness staff use - admits analysis of size, structure, movement of workers in the whole company and in its subdivisions in dynamics; audit of working time, productivity; payroll costs; education and social needs;

- audit of working time - starts with an analysis of the planned amount of time. Comparison of planned (estimate, basis) factors with actual makes it possible to identify inefficient loss of working time;
- audit work quality covers a variety of conditions and parameters, including a certain level of skills, absence of safety violations, etc;
- audit of work productivity aims to determine the degree of fulfillment of job programs with productivity growth and its dynamics, the study of the increased productivity impact on the amount of economic activity, factors' influence on productivity;
- audit of salary spending - provides a number consecutive calculations: defining the amount of salary according to the staff category; grounding forms and systems of remuneration; analysis of the bonuses' effectiveness;

The facts of audit and analysis make it possible to identify the effective use of labor through the development progressive forms of organization and work promotion, and factors that provide a quantitative and qualitative changes in labor factors and factors of social staff development.

Thus, the audit in the labor sphere as identification part of reserves to improve the efficiency and profitability is one of the most effective factors existing in enterprise policy, which is particularly clearly visible in the transition to a market system.

Regular audits make it possible to evaluate the situation and development of labor relations in the company in dynamics.

Analysis, reporting and audit ensure the effective implementation of measures to provide enterprise staff with necessary skills, their management, and accordance of organization and payroll accounting to requirements and standards.

Test Questions

1. What is the economic analysis in labor sphere?
2. What are the main purposes of the employment indicators' analysis.
3. Specify the objects of study analysis of labor indicators.
4. What are the indicators characterizing the efficiency of labor use?
5. What does accountability in the labor sphere reflect?
6. What forms of accountability does state statistical reporting in work issues include?
7. What are the main regulatory documents governing the form of statistical recording.
8. Describe the nature, value, trends and stages of audit work.
9. In what ways an audit in labor sphere can be considered?

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