EDUKACJA
PRACA
RYNEK PRACY

REDAKCJA
BOGUSŁAW PIETRULEWICZ

Zielona Góra 2010
EDUKACJA
PRACA
RYNEK PRACY

REDAKCJA

BOGUSŁAW PIETRULEWICZ

ZIELONA GÓRA 2010
SPIS TREŚCI

Wprowadzenie .................................................................................................................. 5

I. Teoretyczno-metodyczne podstawy rozwoju i pracy zawodowej człowieka

Zygmunt Wiatrowski
Współczesność rozwoju zawodowego, pracy zawodowej i kariery zawodowej ............ 7

Kazimierz M. Czarnecki
Powstawanie nowych dziedzin wiedzy .......................................................................... 9

Maria Fic
Kryzys gospodarczy w krajach Unii Europejskiej a sytuacja na rynku pracy .......... 19

Daniel Fic
Homo faber w epoce globalizacji .................................................................................. 27

Lidia Jablonowska
Determinanty rozwoju kariery zawodowej w dobie organizacji wiedzy ................. 39

II. Edukacja w rozwoju zawodowym

Kazimierz Went
Edukacja do zawodu(ów) na chaotycznym rynku pracy .................................................. 51

Eugenia Iwona Laska
Samokształcenie nauczycieli wobec wyzwań współczesności. Wybrane aspekty .... 63

Kazimierz Udzicki
Uczniowie szkół gimnazjalnych o współczesnym rynku pracy ..................................... 75

Benjamin Apelojg, Dieter Mette, Arno Schelzke
Współpraca pomiędzy firmami uczniowskimi – wkład sieci do orientacji zawodowej .... 85

Mirosław Frejman
Młodzież szkolnictwa zawodowego o swoim przygotowaniu do wejścia na rynek pracy .. 95

Bernd Meier
Orientacja zawodowa dziś – wspomaganie młodzieży w procesie wyboru zawodu .... 105

Elżbieta Podoska-Filipowicz
Orientacja i poradnictwo zawodowe w rozwoju zawodowym człowieka .................. 115

Ireneusz Woźniak
Kierunki zmian w kształceniu zawodowym i ustawicznym uwzględniające potrzeby rynku pracy ................................................................. 129
III. Niektóre aspekty pracy człowieka

Stanisław Kacor
Praca jedytna zintelektualizowana w gospodarce ........................................ 141

Barbara Baraniak
Praca ważną dla pedagoga pracy kategorią naukową, poznawczą i badawczą ........... 153

Magdalena Piórnęk, Magda Pozorska
Praca poza granicami kraju jako składnik biografii zawodowych. Kazus Polek
na niemieckim rynku pracy .................................................. 161

Michael Luchko, Gregory Tereshchuk
The planning and analysis of staff number and salary at the labour market in Ukraine .. 171

Teresa Z. Sarleja
Świat wartości i praca w świetle filozofii Stanisława L. Brzozowskiego .................... 183

IV. Aktywność zawodowa pracowników

Zdzisław Wolk
Formy wsparcia aktywności pracowniczej ...................................................... 207

Tatiana Ronginska
Psychologiczny dyskurs sytuacyjnych kontekstów środowiska pracy ......................... 223

Jolanta Wilisz
Aktywność pracowników ze względu na wartości ich stałych indywidualnych
cech osobowości .............................................................. 235

Stanisława Danuta Frejman
Postawy pracowników wobec podnoszenia kwalifikacji ........................................ 245

Dariusz Reśko, Paweł Żukowski
Postuluowany profesjonalny model nowoczesnego menedżera ................................. 255

Bogusław Pietrulewicz, Iwona Korcz
Szef jako zawód – wybrane zagadnienia. Refleksja nad pracą współczesnych
kierowników .............................................................. 273

Marek Myśliwiec
Prawno-organizacyjne aspekty podnoszenia kwalifikacji zawodowych pracowników .... 285

Podstawową formą aktywizacji teoretycznych i prak
wilizacyjnych, świadomość leczny pracy warunkuje j
możliwości jej organizacji przez pracowników

Dla efektywności i gotowaniu i doskonalen
cesy poradnictwa zawodów
jace prace nad standardami
do radzenia sobie na wew
dowym.

Nadal jednak pozostaje
wszystkim osoby rozpo
też procesy pracy, ed
w perspektywie całej linii
każdym etapie życia.

Przedstawione w ni
zawodowego człowieka.
zawodowej i zawodu, z c
skonalań zawodowej ak
autorskimi.

Wyrażamy przekoni
nych inspiracji oraz będzi
problematyką.
Michael Luchko*
Gregory Tereshchuk**

THE PLANNING AND ANALYSIS OF STAFF NUMBER AND SALARY AT THE LABOUR MARKET IN UKRAINE

Every working Ukrainian retains one pensioner and another public sector employee. Only 44% of country population works in the economy. For comparison: in Russia this index is approximately 48.7%. In Germany economically active population is 56%, the Czech Republic – 50.6%, Romania – 46.7%.

Thus, in Ukraine among 18.3 million workers almost 1 million persons work in the field of state administration, 1.33 million – in the field of health service and social assistance, 1.7 million are lecturers, teachers, scientists, educators and other busy in the sphere of education.

Also 200 thousand servicemen and 150 thousand persons who according to the report “The observance of prisoners’ rights in Ukraine – 2009” are in prisons belong to the group “public purse eaters”

According to the index of the labour productivity calculated on the basis of the IMF and International labour organization for 85 countries, Ukrainians occupy the 72nd position. Each Ukrainian worker in 2008 made 16082 dollars for the state. Luxemburg (every worker there earned 192931 dollars for the country), Singapore (129129 dollars) and Norway (101919 dol.) are the top list leaders.

* Doctor of economic sciences, professor The European university (Ternopil)
** Doctor of pedagogics sciences, professor The pedagogical university (Ternopil)
According to the rates of the efficiency of labour the next-door "neighbours" of Ukraine are Armenia (16762 dollars), Azerbaijan (18456 dollars), Thailand (14459 dollars) and Iraq (13902 dollars).

In support of growth rates of GDP at the level of 1998-2007 it is necessary for Ukraine to promote the labour productivity at least in 2.6 times, that to go out on the level of Poland, Turkey, Estonia, Lithuania and Chile. That is according to the analysts' estimations of McKinsey Company.

Personnel planning is the constituent of the general planning of activity and enterprise development, directed on proportional and dynamic personnel development. It foresees the determination of general and additional requirement for the next period, and also calculation of the qualifying structure.

Planning of personnel engulfs:
- prediction of the perspective enterprise needs in personnel (as to separate categories);
- study of labour-market (market of skilled labour force);
- condition analysis of the enterprise working positions;
- development program and measures on personnel development.

The personnel planning contributes to the maintenance of enterprise competitiveness, the necessity of its subsequent development and optimum use of labour resources. Practical basis of personnel planning at an enterprise are the plans of economic and social development of collectives.

All the workers at the enterprise are divided into such categories: workers, managers, specialists, office workers, guard, and students.

Workers, as marked already, are divided on basic, directly busy at implementation of the products making technological operations (for example, on a machine-building enterprise are casters, turners, welders and others), and assistant workers who execute different auxiliary or subsidiary operations in repair, transporting, instrument production, maintenance of energy economy, etc. Workers are differentiated by the profession and qualification. Every profession is divided into specialities and digits depending on the level of qualification.

At industrial enterprise workers, foremost basic workers are the main kernel, as a volume, quality of products, level of the labour productivity depends on them.

The efficiency of enterprise activity, the quality of products, the level of technical progress and production organization depend on work of managers and specialists, level of their qualification, responsibility, creation, performance and labour discipline, attitude to their duties.

In modern terms the important thing is the establishment of minimum number necessary for the conduct of production, improvement of personnel structures on every enterprise.

The essential thing is to determine the necessary quantity of workers, their professional and qualifying features with the help of the production program, terms of the output and time, planned increase of the labour productivity, structure of works.
In order to determine the general staff requirement of enterprise (Q) we need to divide the production volume (PV) by the planned output on one worker (O):

$$Q = \frac{PV}{O}.$$

More exact calculations of number must be done separately according to certain categories of pieceworkers on the basis of indexes of labour intensiveness of products, fund of working hours and level of norm implementation; time-workers — taking into account the fixed areas and labour intensiveness of service, norms of personnel quantity, labour intensiveness, rationed tasks, fund of working hours; students — taking into account a requirement in training of new workers and planned terms of studies.

Depending on production specificity different methods of quantity determination of basic workers are used. It is necessary to calculate the number of working hours needed for the output program performance in order to calculate the quantity of the main workers in terms of labour intensiveness.

It is defined the fixed hours necessary for the program which correspond the production quantity multiplied by the operating time used for one product.

Taking into account, that the set norms of time (output), as a rule, are overfulfilled, it is necessary to correct a requirement in fixed hours, calculated on the basis of operating norms of time, on the coefficient of overfulfillment of these norms.

For determination of key workers number it is necessary also to define the real fund of working hours. For this purpose the balance of working hours of one worker is elaborated, where three types of working hours are calculated: calendar is an amount of days during the planned year; nominal is a calendar amount of days in the planned year without output and festive days; the planned, real, or effective fund of working hours, which we get after deduction from the nominal fund of day-long losses of working hours, connected with the planned regular vacations, absences due to illnesses, maternity leave and vacations connected with childbirths, fulfilment of official and state obligations.

If we add the actual vacation with permission of administration, truancies and round-the-clock outages to the real fund of working hours for one worker, we shall get current balance of working hours of one worker.

The amount of days of regular vacation is calculated on the basis of indexes of workers amount as to categories and duration of vacation of separate groups.

Non-appearances connected with the fulfilment of the official and social obligations are planned at the level of the percentage in the general nominal fund of working hours in the reporting year.

Maternity leaves are planned on the basis of current information of base period and the planned change of women staff in the general quantity of all personnel.

Failures to appear due to illnesses in the planned balance are determined on the basis of current information taking into account an improvement of sanitary production hygiene and decline of illnesses due to this.
The actual amount of working days in the planned balance is calculated by the deduction from the nominal working hours of absences, settled a law, namely:
- regular and additional vacations;
- vacations connected with pregnancy and births;
- failures to appear due to the fulfilment of the official and social obligations.

In the current balance, to set the actual amount of working days in a year to the transferred take-outs it is necessary to add also the time loss because of the illness, with administration permission, round-the-clock truancies and round-the-clock outages.

After actual amount of working days per year is set, the middle nominal duration of working hours is calculated. Basis for this calculation is the data about amount or part of workers that have different duration of working day according to law.

However, this duration does not remain unchanging, as there are losses of working hours according to the law about women who feed young children. These losses in the plan are defined on the basis of current information of the last year, corrected into the coefficient of women change in the general number of personnel.

Losses due to inwardly changing outages which are determined by “the idle time” sheets are included in the performance balance.

Duration of outages in balance settles accounts so: according to “the idle time” sheets the amount of hours is summarized, the received sum is divided by the registered amount of workers.

Having multiplied the actual duration of working day according to the report and plan, we will receive real (effective) quantity of working hours for one worker.

To determine the number of the key workers as to labour intensiveness, a calculation can be formulated as:

\[
C_{pl} = T_{np} - F_{pl} \times K_{vn}
\]

Where \(C_{pl}\) – planned number of the key workers, persons;
\(T_{np}\) – planned amount of works;
\(F_{pl}\) – real fund of working time of the one registered worker;
\(K_{vn}\) – planned percent of the time performance.

The purpose of quantity planning of assistant workers is the establishment of the most rational correlation of the key and assistant workers, development of measures directed on the decline of assistant workers number.

The peculiarity of labour activity of assistant workers stipulates specific methods of calculation of their number. At works which are fixed, and also at works where the volume can be set depending on the amount of attendant machines, mechanisms and aggregates, the quantity of assistant workers is calculated by the same methods as the quantity of the key workers as to labour intensiveness, norms of output, and norms of service.

In those cases when production facility or equipment is served by the group of workers and their location is not determined inwardly, the calculation of quantity is carried out according to standards.

The further impo
The further improvement of norm setting has to promote an introduction of methods of the assistant workers number planning as to the labour intensiveness of fulfilled works and norms of service.

For calculation of specialists' quantity normative method is more often used, which is based on application of the loading standards, service, control and number of specialists. The loading and service standards can be used in industries of non-productive sphere (for example, in the sphere of public health care, education, domestic consumer services, etc).

It is expedient to apply the quantity standards of specialists at the financial production enterprises. It foresees the establishment of subordination of the quantity and quality indices of the personnel work and the enterprise chief technical and economic indices such as nomenclature or production range, labour productivity, cost of the basic production funds and others.

$$Q_{st} = Q_{sp} - I$$

where $Q_{st}$ — quantity standards of specialists with higher education and trade education; $Q_{sp}$ — quantity of specialists; $I$ — the significance of the chosen technical and economic indices of an enterprise.

Nomenclature method is becoming more popular at the enterprises. It is based on the planned indexes of production development, typical structures of staffs, and also nomenclatures of positions which should be substituted with specialists with the higher and middle special education.

By this method it is possible to define both quantitative requirement in specialists on the basis of staff timetables and high-quality — on the basis of typical nomenclature of positions which determines the level of classification and type of specialists training.

The typical nomenclature of positions is developed at all levels of management — from an enterprise to the ministry and is the initial base of standards of specialists' saturation and requirements in terms of specialties. The standard coefficient of saturation in every planned period is calculated as ratio of standard quantity of specialists to the registered quantity of workers.

A general necessity is determined by standard coefficient of specialists saturation ($C_s$) multiplied by the planned quantity of workers in this year ($Q_{pw}$):

$$Q = C_s \times Q_{pw}$$

The performance of the quantity and staff plan is analysed at the enterprises. The purpose of this analysis is:

- determination of accordance between the actual and planned quantity of workers on the whole and by separate categories;
- distribution of workers by the character of production (key and assistant); determination of the staff according to gender, experience, age and education; finding out the reasons of rejection of actual quantity from planned;
establishment of high-quality changes in the staff;
- exposure of sizes and reasons of fluctuation.

To determine the correspondence between the actual numbers of workers in each category and planned, it is necessary to determine the absolute and relative surplus or shortage of workers. Absolute value of surplus or shortage is equal to the difference between actual and planned number. The relative surplus or relative shortage is determined in view of the plan output.

Detailed analysis of personnel number structure enables to detect a tendency of change of the employees’ number. Analyses of workers by occupation and qualifications determine the average qualification level. For example, middle level workers – 2.64, and the works – 2.34 if the average level of work below the average level of workers, in this case, you must download heavier and more complex enterprise work, otherwise the company will have to pay in addition to workers whose level of discharge is higher than the level of the work they performed.

This will lead to overspending payroll and increase production costs. If the average level of work is higher than the average level of workers, it is necessary to plan training of the workers by their qualifications and categories.

Compliance management and qualification categories can be determined after the certification by an analytical indicator – the average score attestation.

An additional need in qualifying employees and professionals is a separate matter.

The principle of calculating such a need is the development of the balance sheet accounts.

Balance sheet accounts at enterprises are the constituent of the complex plans of the economic and social development. They are closely linked with the production perspectives, the introduction of organisational and technical measures.

An additional need in employees of the separate vocational qualification group are defined as the difference between the actual number of workers, adjusted for the accounting period in the supposed reduction of workers, and strength, calculated on the road period.

Quantitative change of workers’ number in the planned period may be positive (with the sign “plus”) meaning the need for additional personnel in the separate vocational qualification groups. On this basis the need for training and staff development is defined. If the quantitative change is negative (with the sign “minus”) the total demand in this vocational qualification group decreases. This causes the release of workers.

The enterprises need to provide an additional need primarily through training their workers and extension courses. This requires analysis of actual professional qualification of workers taking into account some reduction of the workers who remain in the planned period in the company or they will be released by the individual professional qualification groups.

At the stage of analysis the need for training and extension courses for workers of the enterprise is determined. This creates the preconditions for their successful promotion of vocational qualification, the detection of workers who perform unskilled, low skilled and unattractive work. Ba workers is worked out.

It is essential to be hired according to the development of the labour supply in the nature of work in the necessary pace and proportion.

In case of demand being identified.

It is expedient to hire skilled (I-II level), skilled Compliance will be characterized by the qualification.

The required number about need for workers.

General demand intensiveness of appoint account the typical staff.

Overall demand business at the beginning specialists (As):

Counting the need increase) the number of work, the partial repl. and secondary specialization positions of specialists as:

Additional need to the target and base.

The salary planning. Planned payroll is planned period.

There are planning elements of its structure.

According to legal applied basic payroll, financial capacity and t
Ukraine in sectoral agreements the conditions of payroll growth should be determined. The conditions of payroll growth at the branch level may be:

- increase of the output;
- improvement of work efficiency;
- reduction of the production costs by 1 hryvnia.

Benchmark rate of the fund shall not exceed one percent for each percent of the output growth, productivity and reduction costs of production by 1 hryvnia etc.

At the enterprise level during collective bargaining mechanism of the formation and regulation of the wage fund is defined.

Regulation of the size of payroll at enterprise can be done by setting:

- regulatory ratio of growth rate of average salary and productivity;
- regulatory ratio of growth rate of payroll and the amount of production, work and service.

The amount of funds for salaries are determined on the basis of growth rate for each item taken to assess the enterprise activities or regulations on the unit in physical terms.

It is reasonable to connect the payroll growth not only with the parameters that characterize the output but with the basic quality indicators, productivity growth, lower costs of production for one hryvnia.

The payroll based on the standards of its growth is calculated using the formula:

\[ PR = PR_{pp} - (UO + N1\times B + N2\times E2 + Nz\times Ez) \]

where

- \( PR_{pp} \) – the payroll for the previous period;
- \( N1, N2, Nz \) – standards of payroll increase in accordance with output growth, productivity and lower costs for one hryvnia products;
- \( E1, E2, Ez \) – output growth, labour productivity, lower costs of production for one hryvnia. In cases where the structure of output, homogeneous in its composition and has a strong character that would prevent drastic changes in the share of the salary types of products, use level standard is used to calculate payroll:

\[ PR = SA, \]

where

- \( S \) – standard payroll per unit of output in physical terms or per unit of volume, taken to calculate productivity;
- \( A \) – the size of production.

The componentwise calculation of salaries is performed by categories of workers.

The most difficult is to define the planned payroll of workers. This planning is done in the following areas: the planning of hourly, daily and monthly payrolls.

Hourly payroll includes all kinds of payments for actually worked time and consists of wages for the time worked for piece-rate, base pays, bonuses for contractors and hourly workers, extra pays for team management, etc. Daily payroll, extra working days and pay.

Monthly (quarterly, extra vacation, payme time, prolonged meritorious service, insufficient level of labo"

The main steps of the calculation of Direct fund wages rates for time workers.

Direct fund of ba account the output program, the method of direct pay. "Herewith, the labo"

Herewith, the labo
decline due to the organ piece-workers if we multi work and categories by ti Direct payroll of payroll of the key piece.

Direct payroll of payroll of key pieces.

The calculation of those workers, base rate.

Apart from the ba parts of hourly, daily and The amount of bor current bonus provisions

The bonus calculated paid according to bonus those bonuses are given.

Since different gr bonuses is determined by The total amount excessive labour intensi hazardous, especially h appropriate amount of s percentage of base rates
workers, extra pays for conditions and labour intensity, night work, non fired foremen for the team management, students training and extra charge for professional skills.

Daily payroll, except hourly payroll, covers extra charge for teenagers' half-time working days and pay of feeding children.

Monthly (quarterly, annual) payroll consists of daily payroll, payment of regular and extra vacation, payment for the fulfillment of the state and public duties, bonuses for prolonged meritorious service severance, payroll staff sent to the other companies or training.

Planned payroll differs from accounting as accounting fund provide payment related to insufficient level of labour organization and deviation from standard working conditions (pay of inwardly changing downtime and overtime work, pay of daylong outages etc.).

The main steps of planned payroll determination are:

the calculation of the planned direct wage bill;

the calculation of extra payments from hourly, daily and monthly payrolls.

Direct fund wages include amounts numbered by prices for piece-rate workers and base rates for time workers.

Direct fund of basic wage of the key pieceworkers can be determined taking into account the output program and the cost of wages per unit of output. The enterprises often use the method of direct payroll key workers according to the planned labour intensive products.

Herewith, the labour intensity must be defined taking into account the interest of its decline due to the organizational and technical measures. We shall get the basic payroll of pieceworkers if we multiply the number of standard hours according to the separate types of work and categories by the appropriate base rate.

Direct payroll of assistant piece-workers is calculated in the same way as the direct payroll of the key pieceworkers but here we take into account the support work.

The calculation of direct payroll of time workers is done depending on the number of those workers, base rate and number of working days in the planned period.

Apart from the basic payroll, it is necessary to fix bonuses, extra charge that are the parts of hourly, daily and annual funds.

The amount of bonuses for pieceworkers and time workers is determined on the basis of current bonus provisions on enterprises.

The bonus calculation is based on the following indicators: number of workers who are paid according to bonus system, wages for piece-rate or tariff rates, and indicators for which those bonuses are given to workers.

Since different groups of workers are rewarded by various factors, the amount of bonuses is determined by each group of workers rewarded by one and the same performance.

The total amount of additional payments in the conditions deviated from normal and excessive labour intensity is determined by the number of workers who work in difficult and hazardous, especially heavy and especially hazardous working conditions and receive the appropriate amount of surcharges, their hour average base rates, the size of surcharges as a percentage of base rates and working time fund.
The amount of additional pay for extra students learning (DL) determined by multiplying the tuition per student in their number in the planning period.

The pay for teenagers’ shortened working day is the same as for the full time workers’ day in the relevant categories.

The size of those payments depends on the number of teenagers, the number of reduced working hours and working days in the planned period of their average pay for an hour. The payment of maternity leave is determined taking into account the duration of this vacation and an average wage.

The amount of regular and additional vacations is determined by the indicators of the daily payroll, an average duration of vacation and useful annual (planned) working time fund.

The amount of wages for the performance of state and public duties is based on an average daily wage and general number of absences at work due to this reason.

The amount of severance pays for workers called up for army is based on its number and average wages for 10 days.

In certain industries for certain categories of workers there are a one-time reward for long service, which are based on planned payroll and the proposed one-time compensation value as a percentage of the base pay.

An additional pay for multi-machine tool service and the combination of professions are not planned and taken from the payroll.

The payroll of managers, specialists, and servicemen is based on the number of workers and their salaries according to staffing table. This payroll consists of the official emoluments, bonuses, additional pays for the working conditions and the night shifts.

After establishing payrolls the average wage for all categories of workers is determined.

An average wage per employee of the industrial-production personnel is determined by dividing the planned payroll by the number of workers in an appropriate period.

An average hour pay and an average annual pay is established for workers.

An average hour pay is based on dividing hourly payroll by the number of hours that have to be worked in the planned period; an average day pay is based on dividing day payroll by the number of days that have to be worked in the planned period; an average monthly pay (quarterly, annual) is based on dividing monthly (quarterly, annual) payroll by registered number of workers in an appropriate planned period.

Fixing an average wage it is necessary to remember that labour productivity growth must provide an accumulation fund growth and encourage the growth of material prosperity of employees. It can be achieved only when labour productivity increase will outstrip the growth of average wages.

The analysis of the plan accomplishment about the payroll use is done in the following ways:

- to examine the payroll usage and set a reason why planned payroll is different from the actually spent payroll;
- to compare the paces of wages growth with the paces of labour productivity increase.
The planning and analysis of staff number...

- to set reasons of deviation from the average wage targets;
- to develop measures to improve the usage of payrolls of certain categories of workers.

During the analysis of payroll expenditures it is necessary to study the effect of assortment changes in production program. Changes of planned range influence on the salary expenses. If the company does the plan, producing less labour-intensive products, in this case the costs for salaries decrease if the company does the plan to increase production of labour-intensive products – they are increasing.

Also the change of the cooperated supplies influence upon the change (increase or decrease) payroll expenses. Decrease of the cooperated supplies increases labour costs and hence payroll expenses and vice versa.

The overspending of payrolls shows that there are certain faults in the existing production organization, labour and marketing activities. Therefore, it is necessary to find out the reasons and outline concrete measures for their elimination.

The essential part of the payroll spending analysis is to analyse the paces of average wages growth and labour productivity. One of the conditions to reduce costs of wages in production, reduce its cost and increase domestic savings is outrunning growth of labour productivity compared with the increase of average wages. Failure to do so inevitably causes the growth of production cost due to overspending of the payroll.