# Foreign Experience of Calculating Salary of Retirement based on Working Experience

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### Abstract

In this article, the experiences of foreign countries, the analysis of their practices, the features of improving the pension system of our country, based on these foreign experience will be discussed.

**Keywords:** *Fixed Salary; Length of Service; Special Length of Service; Pension Provision; Pension; Allowance; Employed Person; Length of Working Experience Calculation Mechanism*

### Introduction

Today, the interests of our people's citizens are in the first place in the implementation of our developing economy and long–term modernization programs. Increasing the standard of living and the quality of life of the elderly in particular is becoming our main goal. The role of the pension system is to realize the constitutional rights to provide social security to our citizens, to establish a unified system of state pensions, the financial basis for managing their appointment, recalculation and payment, to manage the activities of pension institutions, and to form the relevant legal framework. Therefore, we can emphasize that today, increasing the quality of pension provision services is a powerful mechanism of social protection and social guarantee for the population of our republic.

For example, the President of the Republic of Uzbekistan, Sh.M. Mirziyoev, in his speech at the joint session of the Supreme Parliament, dedicated to the inauguration of his country's presidency, focused on the special attention of our government to the social sphere[1], saying the following: increase, improvement of medical service and social and household provision will remain one of the most important tasks for the President, our government and all hokims. At the same time, a comprehensive set

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[1] The speaker of the President of the Republic of Uzbekistan Sh.M. Mirziyoyev at the extended meeting of the Cabinet of Ministers dedicated to the sad results of the socio–economic development of our country in 2016 and the most important directions of the economic development planned for 2017. – T. From Uzbekistan, January 14, 2017.

of measures to strengthen state support for pensioners, single elderly people and disabled people has been developed and they will be implemented soon.

Effective organization of the pension system in our country, strengthening its financial resources, improving the activities of the pension system management bodies, achieving a wider penetration of modern and fast information and communication technologies in the field, and on the basis of this, improving the method of determining the work experience of citizens is one of the urgent issues today. To improve this system, study the paths of modern pension systems, the reforms implemented in them, and implement institutional changes in our pension system based on these experiences increase will be able to make a great contribution to the future development of the system.

In addition, the theoretical and methodological basis of the article consists of the rules of the modern institutional approach, the use of which is effective for the scientific study of the pension system, because the institutions of the pension system cannot be successfully reformed without taking into account various socio–economic and legal factors that determine the nature of the development of this system.

### Literature Review

Roik (2007) Pension provision is one of the most important functions of the state as part of social security. The rights of citizens to social security in accordance with the structure and capabilities of the state are defined in Article 22 of the Universal Declaration of Human Rights, adopted by the General Assembly of the United Nations on December 10, 1948.

The term "pension provision" includes various forms of social protection of the population against risks related to old age and disability, as well as loss of a breadwinner (Kasparyants, 2014). The effective functioning of the pension system definitely requires reforms. All national pension systems face the need for reform. It would not be wrong to say that the pension system is a complex system that combines economic, social and legal institutions, designed to meet the interests of various social strata of society. The success of this system largely depends on the level of its provision of financial resources, the correct organization of the main functions of the system, and the strength of its financial resources.

"Pension institutions cannot be modernized without affecting the basic socio–economic components of community life" (Bolnitskaya, 2006). According to this researcher, in a situation where society is undergoing radical changes, the effective renewal of the pension system depends directly on economic, cultural, historical and demographic factors, as well as the level of development of civil society and state institutions, the level of material disparity of the population, said that the stratification of different social groups according to the level of income depends on the purchasing power of pensions, their amount and the ratio of wages.

Therefore, the reform of the pension system cannot be carried out without harmonizing its parameters with the wage system, demographic and employment policy. Many modern researchers have pointed out that the particular shortcoming of the pension system reforms is the isolation of these reforms from changes in other areas, primarily in the tax area, as well as in the labor and stock markets (Degtyar, 2012).

According to Erofeevoy (2012) in this field, pension system institutions should match the structure of a certain society, the nature of the activity of other socio–economic institutions, the demographic characteristics of the population and the employment policy. At the same time, the institutions of the pension system are also unique legal institutions: their uniqueness is that these institutions are determined by the regulation of their relations for a long time, that is, for 60–80 years, from the time when a person first worked, with the periods when the right to pension appeared. depends.

Therefore, the regulatory framework of these institutions should ideally be distinguished by its stability and should not change frequently. He emphasized that the distinctive institutional features of pension systems should be taken into account in the analysis of individual elements and mechanisms of this system, as well as in the assessment of the effectiveness of pension system changes in individual countries.

According to Mihaokina and Pisinka (2013), researches on modernization and improvement of the state pension system, creation of new organizational and legal foundations in the system, structural changes in pension and insurance organizations, increasing the level and quality of social protection status of the population will be of great importance in the last decade.

Taking into account the peculiarities of the pension system and its institutional changes, it should be noted that in different countries they operate on the basis of the correspondingly distributed (participatory) and cumulative (accumulating) pension systems. The basis of the activity of the shared or joint pension system model is insurance contributions, which depend on the amount of wages of working citizens. The basis of the formation of pension payments in this system is that the next generations finance the previous ones, and the insurance contributions paid by citizens and employers are used to pay pensions in the present. Therefore, the level of well–being of pensioners in this system depends on the economic opportunities of representatives of the working generation. In the case of distributed pension provision, pensions "have a social character, and their payment is guaranteed by the state" (Ilminskaya, 2010).

The word "pension" was first mentioned in the documents of the Paris Chamber of Accounts during the reign of Louis XI in the second half of the XY century. In the 20th century, pension systems of developed countries gradually converged. Countries where the pension system is based on the payment of insurance contributions (Germany) established a guarantee of a minimum pension amount based on previously paid contributions. In addition to the minimum pension, a mandatory social insurance system (in Great Britain) was introduced. In the US, the state pension system for old age appeared relatively late. In the USA, in 1935, the "Pension Insurance" law was approved, and a need-based pension system was introduced (Kasimova, 2017).

Bolotskaya (2013) writes in her article that the German pension system is based on compulsory social insurance, which is financed by the contributions of employers and employees. The amount of pension rights of a citizen is directly proportional to the amount of paid contributions. Thus, the main principle of the German pension system is to preserve the property and social status of the employee after retirement.

Pension systems were established in Denmark and New Zealand in 1891 and 1898. Their organization and activities were based on principles different from those of Germany. They were directed, first of all, to maintain the minimum amount of income of low–income sections of the population, the financing of these payments was carried out from tax revenues, and all the needy were provided with payments at an even level (Khmelevsky, 2016).

Pudovkin (2017) notes that pension systems began in Great Britain and Australia in 1908, in France in 1910, in Sweden in 1913 and in Italy in 1919. Currently, the pension system in Great Britain combines elements of the pay–as–you–go and the accrual pension system.

In Latin America, the Chilean pension system, established in 1924, should be highlighted. Chile's pension system was originally structured as a pay–as–you–go system, but since 1981 it has been transformed into a fully funded system (Degtyar, 2012). Currently, Chile's pension system is a mixed pension system that incorporates both distributive and accumulative models.

At the beginning of the Second World War, pension systems were built in almost all developed countries, but these systems largely did not cover all groups of the population. The decades after World War II saw the emergence of pension systems at an unprecedented rate in many developed countries. By 1940, there were only 33 pension systems in the world, by 1990 their number had increased to 138 (Pavlyuchenko, 2007).

Emelyanova (2008) emphasized that the formation of the pension system is divided into the following types:

– To provide a living wage and materially for the unemployed population. Eliminating the consequences of poverty, maintaining social equality regardless of the opportunity to work;

– Taking into account the personal labor share of the pensioner in the implementation of pension provision according to the income of the population;

– Pension provision based on personal initiative. The pension system is based on the use of funds, which are formed on the basis of provision and directed to meet the social needs of the population and exercise their constitutional rights. Features such as clearly defined sources of income for pension funds serving the pension system, strictly targeted use of funds, aimed at easing the social stratification of the population, incompatibility of the formation and use periods of funds, the fact that it is an independent financial and credit organization and an off–budget target fund, and that it is an important element of social security is typical.

Whitehouse (2008) argues that basic pension schemes provide pensioners with the same amount of pensions, or pensions based on years of service (rather than previous earnings). Additional income from other sources does not change entitlement to the basic pension. Such foundations of pension provision are common in high–income countries of the IHTT (10 out of 24 countries), Eastern Europe and Central Asia (4 out of 10 countries). There are several cases of such schemes in Latin America and the Caribbean. In the Middle East and North Africa such schemes are not found at all.

### Research Methodology

Methods such as induction and deduction, grouping, space and time, analysis and synthesis, and logical analysis were used in the research. Graphs and pictures were used in order to express the results of the research in a general and integrated way.

### Analysis and Discussion of Results

In the conditions of modernization of the economy, in order to strengthen the addressability of the social protection system of the population in our country, the pension system of Uzbekistan is being reformed based on world experience. The ultimate goal of the pension system is to create a stable mechanism of financial support for all hard–working pensioners. For this reason, we will analyze the consideration of work experience and wages in the improvement of the pension system on the example of several foreign countries.

The first level of the German pension system is the state pension, which is income–oriented and the amount of pension payments is fixed. This program serves to provide social insurance against loss of working capacity, disability, bereavement and unemployment. The state pension is partially funded and all working–age people are required to pay contributions. The minimum wage for which contributions are required is 5,600 euros per month for an employee and 5,500 euros for an employer. Salary contributions above this threshold are voluntary.

Table 1, Payments to the German Social Security System (from Wages), 2017 Year[2]

| Insurance type | As a percentage of gross wages |
|---|---|
| Pension insurance | 18.6 |
| Medical insurance | 15.7 |
| Unemployment insurance | 3.0 |
| Maintenance insurance | 2.3 |
| **Total** | **39.6** |

In Germany, the amount of contributions to the pension insurance system depends on the amount of work, and the higher the amount of work, the higher the amount of contributions. Insurance contributions are made by the employer. Pension insurance contributions are charged 50/50 from the employee's salary and the employer's funds. The amount of the pension contribution is determined in the amount of 18.6% of the gross salary.

If an employee earns 450 euros per month, i.e. the minimum wage (minijob), then the pension insurance contribution is 18.6%, 15% of which is paid by the employer, and 3.6% by the hired worker. Self–employed residents pay contributions at the full rate. Contributions are paid by the federal authorities when the employee is on leave until the child turns three years old.

In Germany, the rate of contributions to the public pension fund has a growing trend, and this indicator increased from 14% to 18.6% in 1960–2017. It is planned that this rate will increase to 20% in 2020, and to 22% by 2030[3].

Table 2, Retirement Age in Germany

| Year of birth | Retirement age |
|---|---|
| Until 1947 | 65 years old |
| 1947–1958 | 1 month is added for every 1 year past age 65* |
| 1958 | 66 years old |
| 1959–1963. | Age 66 is added every 2 months |
| since 1964. | 67 years old |

The retirement age in Germany is determined by the year of birth. Those born before 1947 retire at age 65, and the retirement age is gradually increased for each subsequent year. Only those born after 1964 retire at age 67.

**\*** For example, if you were born in 1950, your retirement age will be 65 years and 4 months (because 4 years passed from 1947 to 1950, so 1 month is added for every 1 year);

\*\* For example, if you were born in 1960, your retirement age will be 66 years and 4 months (because 2 years passed from 1959 to 1960, so 2 months are added for every 1 year).

According to the legislation of the country, early retirement is possible in the following cases:

– People who have paid contributions to the pension insurance system for no less than 45 years can retire at the age of 63–65, depending on the year of birth;
– Women who were born before 1952 and meet a number of conditions set by law can retire when they turn 60;
– The disabled and certain groups of people can retire early.

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[2] https://ru–geld.de/pension/

[3] Abramov A.E. Institutsionalnye investory v mire: osobennosti deyatelnosti i politika razvitiya: v 2 kn: kn.1/A.E. Abramov; Nauch. ed.A.D. Radygin. M.: Delo, RANXiGS, 2014. 544 p. s. 201.

The calculation of pension payments in Germany is based on complex calculations. When calculating pensions, it is necessary to calculate additional factors that affect the formation of the "pension score" in addition to salary (payments to the insurance fund) and length of service. When calculating the amount of pensions, there are special cases that are added to the length of service (for example, the period of raising children up to the age of three, studying at schools and universities, the period of unemployment, the length of military service, the number of children, etc.), and these cases are aimed at improving the demographic situation in the country and encouraging the improvement of the quality of labor resources. The following formula is used to calculate the age pension: Rent = EP*ZF*RAF*aRW.

Rent – monthly pension amount, euro;
EP (Entgeltpunkte) – pension contributions;
ZF (Zugangsfaktor) – retirement coefficient;
RAF (Rentenartfaktor) – the coefficient determining the type of pension;
aRW (aktueller Rentenwert) – the value of the pension score.

EP – reflects the amount of pension contributions allocated by the insured to the pension fund during his working life. In accordance with Section 63 of the Sixth Book of the German Social Code (SGB VI), 1 point is given for the amount of contributions to the pension fund from the salary equal to the average statistical salary during the year.
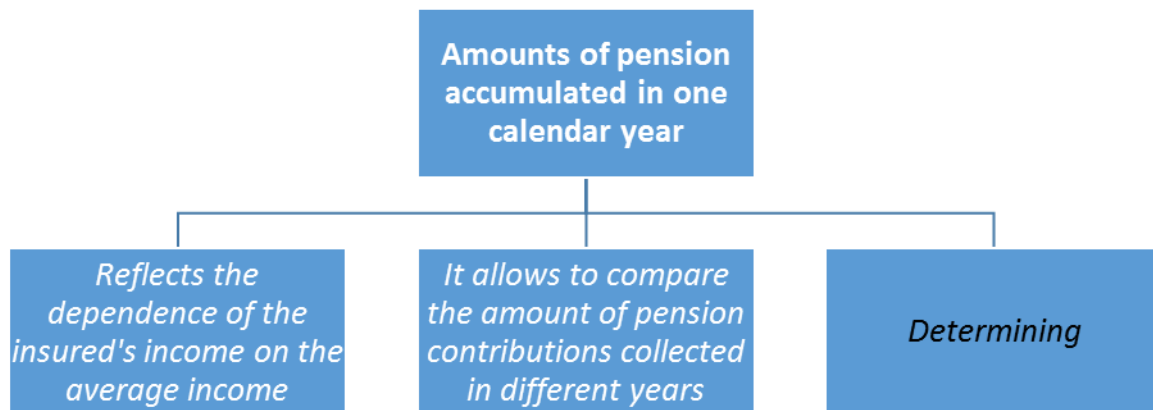


Picture 1. The Amount of Pension Points You Have Accumulated in One Calendar Year in Germany[4]

For example: as of January 1, 2014, the average statistical salary for all insured persons was EUR 2,765 in West Germany and EUR 2,345 in East Germany. If the salary of the insured person is less than 2 times the average statistical salary, then he gets 0.5 points. If the amount of salary is 2 times more than the average, then 2 points will be scored and so on. At the same time, the pension score should not exceed a certain limit. In 2014, the maximum value of the pension score in West Germany was equal to 2.151899. This indicator is defined as the ratio of the maximum indicator to the average salary (5950/2765). Due to the fact that pension insurance contributions are not collected during the period related to raising children or caring for a sick family member, a special procedure for calculating the pension score has been introduced.

In Japan, the pension system consists of two parts, which are the base system (single rate) and the income–related system. The basic pension system is implemented for all Japanese citizens, regardless of income level and length of service. The basic retirement age is 65, and 25 years of insurance premiums are required.

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[4] https://www.john–info.de/rentenversicherung.html.

Earnings–related pension payments are paid from the age of 65. This pension is paid in addition to the basic pension with a minimum period of 1 month of pension contributions and is given to pensioners who are entitled to receive basic pension payments.

Table 3, Structural Structure of the Japanese Public Pension System[5]

| **Basic pension** | It is financed from the contributions of the National Pension System. | It is financed by contributions of professional and mutual aid systems. | |
| --- | --- | --- | --- |
| | Paid from state subsidies (50% of basic pension system costs), 2% of GDP | | |
| **Coverage categories** | Category 1: Self–employed and their dependents | Category 2: Wage workers | Category 3: Category 2 dependents |
| **Pension scheme** | National Pension Program ( NP) | Occupational Retirement Insurance ( ERI ) and Mutual Social Assistance Associations (MAA ) | ERI + MAA |
| **Coverage (until retirement age)** | 19.04 million people | ERI: 34.51 million people MAA: 4.41 million people | 9.78 million people |

Earnings–related pension payments depend on the salary and the period of payment of pension contributions, which is calculated in the following order: (Monthly amount of average salary to be taken into account for pension) x 0.7125% x (period of payment of pension contributions until March 2003) + (amount of average salary to be taken into account for pension, including bonuses) + 0.5481% x (pension from April 2003 points payment period)[6].

Pension payments in the earnings–related pension system are indexed to the net average salary until the pensioner reaches the age of 67 and are indexed to the price after the age of 68.

### Conclusions

In order to increase the stability of the pension system, based on the experiences of the above countries, one of the most optimal solutions can be considered to be increasing the efficiency of state assets. Here are a few:
– revision of the distribution of investments according to the principles of the basic portfolio and the increase of allocations to active funds;
– revision of passive investment rates;
– implementation of proactive risk management;
– increasing pension amounts of low–income pensioners;
– introducing rules on the payment of a part of pension payments in the form of annuities;
– it will be necessary to increase the level of coverage of workers and employees with corporate pension programs.

Also, for retirement incomes in 2040 to match those of today's retirees, average–income households would need to increase their annual savings by 1.5 to 2.5 times. Considering the real return on investment of 2%, this way, it is possible to achieve an additional spending on savings of 2.5% to 4% of the salary received during 40 years of work.

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[5] Alliamz International Pensions What's happening in Japan. September, 2014/
[6] Pensions at a glance 2015: OECD and G20 indicators *OECD, 2015.

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