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Changes in salary levels in the Ministry of National Defense – simulation

Zmiany uposażeń w resorcie obrony narodowej – symulacja

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Abstract:

Research objectives and hypothesis/research questions

In the era of the employee market and competition from the civilian sector, especially in the IT industry, logistics, and technology, the army must offer appropriate financial conditions to attract new candidates (Paślowski, 2025). Without attractive rates, it is difficult to attract young and talented people (Górniak, 2013). That became the premise for outlining a research problem: in which salary groups of the Ministry of National Defense did the pay rates increase the most and is the solution regarding the multiplicity of pay levels for respective military ranks compared to the lowest classification group (O – private) consistent with the solution applied in the United States Army? For the research problem thus adopted, the aim of the research was outlined. It is to conduct a multidimensional comparative analysis of salary rates in the Polish and US armies and to conduct a simulation of calculations of salary rates in the Ministry of National Defense consistent with the nomenclature of the United States Army. The article presents a research hypothesis: it is assumed that the largest increases in rates were observed in the highest pay grades in the Ministry of National Defense, but taking the same pay grade groups as a basis, the lowest percentage increases are visible in the highest pay grades of the Ministry of National Defense, which flattens the pay structure to a level lower than in the US Army.

Research methods

The following research methods were used in the article: source analysis and modeling. The source analysis used the inference technique, and research tools in the form of deduction schemes were used. The modeling used the multidimensional comparative analysis technique, and research tools in the form of graphs and data matrices.

Main results

Between 2023-2025, the dynamics of pay increases increased significantly, which can be attributed to the level of inflation, the growing increase in living expenses and the increased defense needs of the country. At the same time, a process of flattening the salary structure was noticed – the differences between the lowest and highest salaries are decreasing. For example, the multiplier of a general's salary relative to a private fell from 4,99 (in 2016) to 3,48 (in 2025).

Implications for theory and practice

To sum up, in NATO countries such as the USA, Great Britain, France, and Germany, multipliers and differences between classification groups are precisely set as a tool for personnel management. It is also worth emphasizing that the multipliers adjust to the labour market and living costs, as well as encourage specialization, improving knowledge of foreign languages, command, and foreign service.

Keywords: military security, salary rates, combat potential, geopolitical threats, Ministry of National Defense

Abstrakt:

Cel badań i hipotezy/pytania badawcze

W dobie rynku pracownika i konkurencji ze strony sektora cywilnego, szczególnie w branży IT, logistyce, technologiach, wojsko musi oferować odpowiednie warunki finansowe, by przyciągać nowych kandydatów (Paślawski, 2025). Bez atrakcyjnych stawek trudno o napływ młodych i zdolnych ludzi (Górnjak, 2013). Stało się to przesłanką do sformułowania problemu badawczego: w jakich grupach uposażeń w resorcie obrony narodowej stawki płac rosy najbardziej i czy rozwiązanie dotyczące krotności wysokości płac dla poszczególnych stopni wojskowych w porównaniu do najniższej grupy zaszerogowywania (0 – szeregowy) jest zgodne z rozwiązaniem stosowanym w armii Stanów Zjednoczonych? Dla tak przyjętego problemu badawczego nakreślono cel badań. Jest to wykonanie wielowymiarowej analizy porównawczej stawek uposażeń w armii Polski i USA oraz przeprowadzenie symulacji naliczenia stawek uposażeń w resorcie obrony narodowej zgodnych z nomenklaturą armii Stanów Zjednoczonych. W artykule postawiono hipotezę badawczą: przypuszcza się, że największe wzrosty stawek zaobserwowano w najwyższych grupach zaszerogowania w resorcie obrony narodowej, ale biorąc za podstawę jednoimienne grupy stawek wynagrodzeń, najniższe procentowe wzrosty widoczne są w najwyższych grupach uposażeń resortu obrony narodowej, co powoduje spłaszczenie struktury wynagrodzeń do poziomu niższego niż w armii USA.

Metody badawcze

W artykule zastosowano następujące metody badawcze: analizę źródłową i modelowanie. W ramach analizy źródłowej użyto techniki wnioskowania, wykorzystano narzędzia badawcze w postaci schematów dedukcji. W ramach modelowania zastosowano technikę wielowymiarowej analizy porównawczej, a w niej narzędzia badawcze w postaci wykresów i macierzy danych.

Główne wyniki

W latach 2023-2025 dynamika podwyżek wyraźnie wzrosła, co można wiązać z poziomem inflacji, rosnącym wzrostem wydatków na życie i zwiększonymi potrzebami obronnymi państwa. Jednocześnie zauważono proces spłaszczania struktury wynagrodzeń – różnice pomiędzy najniższym a najwyższym wynagrodzeniem maleją. Przykładowo mnożnik płacy generała względem szeregowego spadł z 4,99 (w 2016 r.) do 3,48 (w 2025 r.).

Implikacje dla teorii i praktyki

Podsumowując, w krajach NATO, takich jak USA, Wielka Brytania, Francja, Niemcy, mnożniki i różnice między grupami zaszerogowania są precyzyjnie ustawiane jako narzędzie zarządzania kadrami. Warto również podkreślić, że mnożniki dostosowują się do rynku pracy i kosztów życia, a także zachęcają do specjalizacji, podnoszenia znajomości języków obcych, dowodzenia, służby zagranicznej.

W Polsce mnożniki są zbyt płaskie, co w perspektywie może powodować stagnację awansową, rotację wśród doświadczonych żołnierzy oraz odpływ kadry technicznej i informatycznej.

Słowa kluczowe: bezpieczeństwo militarne, stawki uposażeń, potencjał bojowy, zagrożenia geopolityczne, resort obrony narodowej

Introduction

The article presents changes in soldiers' salaries in the Ministry of National Defense between 2016-2025. The analyses show that salaries are growing systematically at every level of the military hierarchy, with the highest rates recorded in 2025. Nominal increases are the largest for higher ranks, such as generals, but the most dynamic percentage increase is observed in the lowest groups, e.g. among privates and senior privates. As a result, a private's salary is growing much faster than a general's salary, which flattens the salary structure – the ratio of the highest to the lowest salary is decreasing (e.g. the general's salary multiplier decreases from about 5 to 3,48).

A multidimensional comparative analysis of the pay system within Polish Army with the American system was also conducted. In the US Army, pay multipliers for higher ranks are significantly higher – for example, the colonel's multiplier is 3,61, and for a full general 9,91. Based on the simulation, it was proposed that in Poland the largest increases, taking into account the adjustment of multipliers to American standards, should apply to general's ranks, which would result in an increase in basic salaries at higher levels.

The studies conducted indicate a constant and systematic increase in soldiers' salaries, both in nominal and percentage values. The result is the observation of a flattening of pay differences between the lowest and highest military ranks, also noticing disproportions compared to the US Army's pay system.

1. Analysis of the literature on the research subject

In times of growing geopolitical threats, the role of the armed forces is becoming increasingly important. The strength of the armed forces in terms of military security is their combat potential, which is the sum of various determinants as potentials: equipment, technical, material, command and human. Behind modern equipment, technology and command there is a factor without which no army will function optimally, which is a human being (Latosiewicz, Kozicki, Tomaszewski, 2025). Its acquisition, maintenance and motivation result to a considerable extent from appropriate rates of remuneration (Kowalski, 2020).

Appropriate remuneration is today not only a matter of justice, but also of the real security of the state. It helps to attract young people to service, retain experienced specialists and build a strong, professional military staff.

People are the most important link in every army. Without them, the equipment will not function. Remuneration directly affects the motivation and morale of soldiers, especially when we are talking about service in conditions of considerable risk and great responsibility (Law, 2022). It is also a safeguard against pathologies – a stable financial situation reduces the risk of corruption and increases loyalty to the state.

It is also worth emphasizing the international aspect. NATO countries maintain military salaries at a level that allows them to compete with the civilian market (Miształ, 2024). Poland cannot be left behind – not only for the sake of soldiers' well-being, but also for the effectiveness of joint allied operations.

Appropriate rates of remuneration divided into soldier classification groups play a key role in the functioning of modern armed forces. They are not only a budget issue, but a strategic tool for building a strong, professional and loyal army (portal-mundurowy.pl, 2025).

The army competes with the civilian market for educated and experienced people. Desirable salaries are one of the main factors attracting young people to military service. At the same time, appropriately designed remuneration systems support the preservation of experienced soldiers and specialists in the structures of the armed forces. This directly results in the stability and continuity of military units (wojsko-polskie.pl, 2025a).

Military service involves a prominent level of physical and mental strain, readiness to operate in difficult conditions, and the risk of losing health or life. Appropriate remuneration is an expression of recognition for this service and is an important motivational factor. High morale of military personnel results in greater efficiency, better work organization, and a stronger sense of responsibility (Horbaczewski, 2024).

The long-term development of the armed forces requires professionalization. To achieve that, not only investments in equipment and training are necessary, but also in people. Optimal rates of remuneration allow for the creation of career paths, support the development of competences, and ensure continuity of command. In such a way, the army becomes not only more numerous, but also qualitatively better (Dywizjon303.pl, 2025).

Insufficient remuneration can lead to frustration, demotivation, and in extreme cases to pathologies such as corruption or desertion. A stable financial situation of soldiers promotes loyalty to the state, increases the level of social trust in the armed forces, and contributes to internal security (Wanat, 2017).

In the era of international cooperation, especially within NATO, it is important to maintain standards comparable to those of allied armies. An appropriate level of remuneration not only strengthens the image of the army on the international stage, but also increases readiness for joint operations and missions (wojsko-polskie.pl, 2025b).

Carefully selected rates of soldiers' remuneration will affect the quality of the armed forces, as well as their ability to effectively respond to the challenges of the modern world. Without proper remuneration of soldiers, it is impossible to build a strong, modern and loyal army. The situation beyond the eastern border, including

the war in Ukraine, instability in Belarus and the aggressive attitude of Russia have shown that the outbreak of war in Europe is becoming a real threat. As a result, Poland is increasing its defense spending, which also includes raising soldiers' salaries to increase the army's numbers and its combat readiness.

In Poland, in 2024, basic salaries of soldiers (excluding bonuses) ranged from PLN 6000 to almost PLN 20 900 gross per month (Statista.com, 2025), depending on military rank. For comparison, the average monthly gross salary in Poland in the fourth quarter of 2024 amounted to PLN 8549. In 2024, defense spending accounted for 4.12% of GDP (Tilles, 2024; Szumski, 2025), which was the highest rate among NATO countries and more than twice the recommended level of 2%. Defense spending in Poland increased to 4.7% of GDP in 2025. Such a rise increases the country's defense capabilities, and also affects the attractiveness of military service as a career path.

Given the growing geopolitical challenges, appropriate financing and remuneration of military personnel is becoming not only a matter of social justice, but above all a strategic element of ensuring national security.

2. Multidimensional comparative analysis of remuneration rates in the Ministry of National Defence

The research began by outlining the data on soldiers' remuneration in remuneration groups in respective years between 2016-2025 in Figure 1.

Based on the data in Figure 1 illustrating the salaries of soldiers in the Ministry of National Defense between 2016-2025, a clear upward trend in salaries for all military ranks can be seen. The graph presents the data in a horizontal layout, where respective military ranks are marked on the vertical axis – from private (0 – private) to the highest military rank (20 – general), while the horizontal axis shows the gross salaries in PLN. From 2016 to 2025, a systematic increase in salaries is visible at every level of the military hierarchy. The year 2025 stands out as the year with the highest rates, which indicates a continuation of the pay rise policy. The largest nominal increases apply to higher positions, such as division generals, lieutenant generals and general. For example, the salary for the rank of “19B – lieutenant general” in 2025 significantly exceeds the levels of previous years and exceeds PLN 22 000. For privates, corporals and sergeants, the increases are less spectacular in terms of amount, but noticeable and evidence of an even approach to modernization of the armed forces.

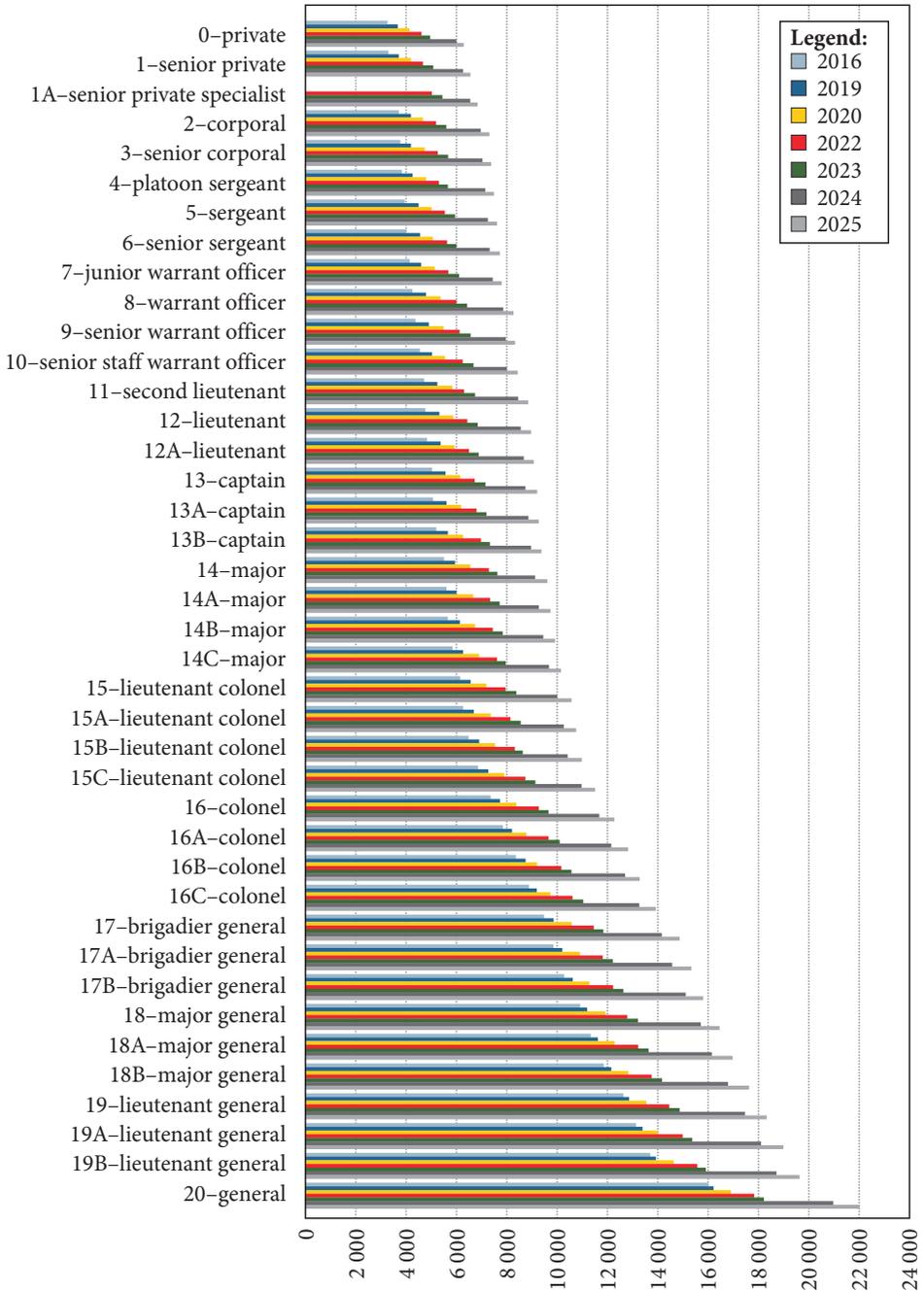


Fig. 1. Bar chart of soldiers' salaries in salary groups in respective years between 2016-2025
Source: own study based on data obtained from respective regulations of the Minister of National Defense

In recent years, the Ministry of National Defense has been gradually increasing the salaries of soldiers regardless of rank, which may indicate actions aimed at improving service conditions, increasing the attractiveness of a military career and maintaining competitiveness in relation to the civilian sector. In particular, recently (2023-2025), the dynamics of pay increases has been significantly higher, which may be a response to inflation, unemployment (Kozicki, Kalwasiński, 2021), rising living costs and increased defense needs of the state (Jurgilewicz, Malec, Piwowarski, Kozicki, 2021; Kozicki, Mitkow, Sowa, 2021).

However, it is worth taking a closer look at the methodology related to the increase in soldiers' salaries in respective rank groups. For that purpose, Figure 2 analyzes the increase in soldiers' salaries in their respective groups in specific years compared to 2016 (the same basis: salary group in 2016).

The highest increases in salaries based on each of the respective groups can be observed in group 1 – senior private: an increase from 2016 to 2025 by 99 percentage points (see Figure 2). In the second place there is group 0 – private: an increase of 97 percentage points, and in the third place 2 – corporal: by 96 percentage points. The lowest percentage increase was observed in the highest salary group 20 – general: by 38 percentage points.

The above-mentioned analyses show that when considering the percentage increase in salaries, taking each of the groups as a basis, the largest increases were observed in the lowest groups, and the smallest in the highest. As a result of this, the multiplicity of the pay of the lowest salary to the highest has probably decreased significantly.

Next, data on the amount of increase in soldiers' salaries from 2016 to 2025 by salary group were examined.

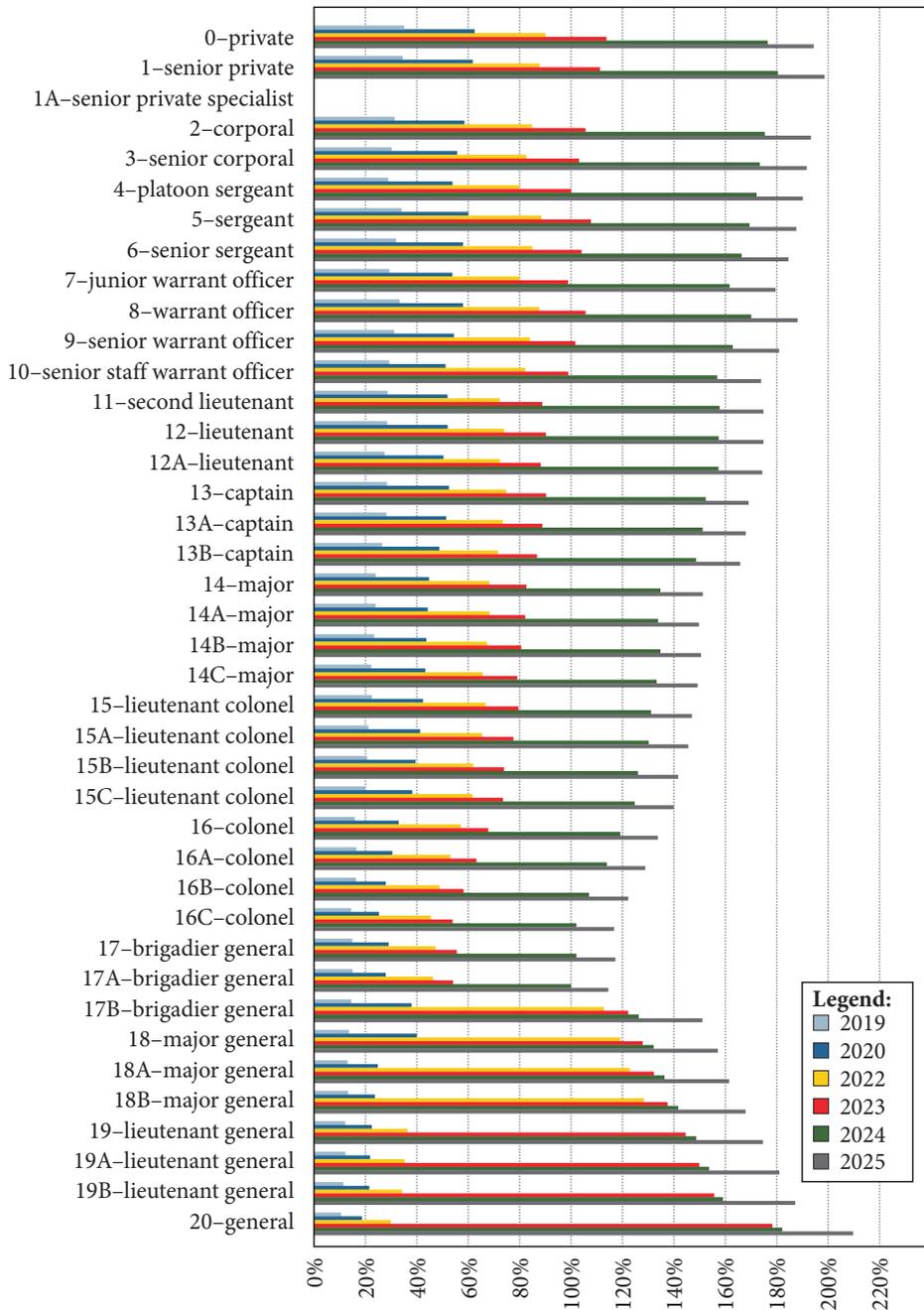


Fig. 2. Bar chart of the increase in soldiers' salaries in respective salary groups in specific years compared to 2016 (basis: the same salary group in 2016)

Source: own study based on data obtained from respective regulations of the Minister of National Defense

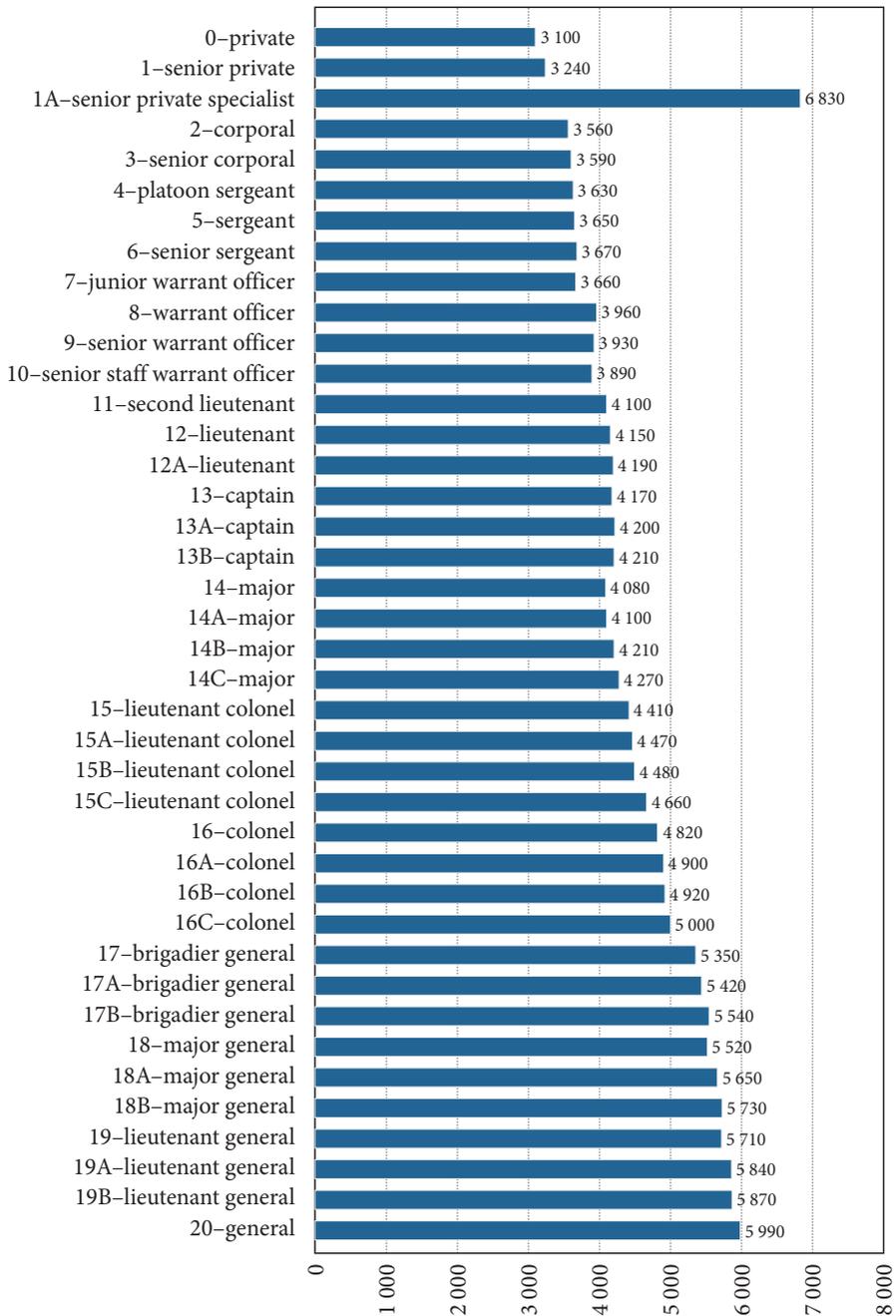


Fig. 3. Bar chart of the increase in soldiers' salaries from 2016 to 2025 by salary group (1A – senior private specialist – rank launched in 2022) in the Ministry of National Defense

Source: own study based on data obtained from respective regulations of the Minister of National Defense

The analysis did not include data on the 1A – senior private specialist classification group, because in 2016 there was no such classification group in the Ministry of National Defense, hence the significant increase of it in the graph in Figure 3, by PLN 6380, comparing the increase in salaries from 2016 to 2025. The analyses indicate that from 2016 to 2025 the largest increase in salaries in PLN was recorded in group 20 – general: by PLN 5990, in the second place 19B – lieutenant general: by PLN 5870 and 19A – lieutenant general: by PLN 5840. The lowest increase was in group 0 – private: by PLN 3100. The above-mentioned solution led to a reduction in the salary multiplier between the lowest salary and each subsequent one in the higher classification group. That can be observed by analyzing Figures 4 and 5.

The data presented in Figure 4 clearly show a decrease in the multiplicity of privates' salaries in the highest pay groups in the Polish Army, especially in the groups of colonel, brigadier general, division general, lieutenant general and general. For example, the general's multiplier in group 20 fell from 4.99 in 2016 to 3.48 in 2025. If a private's salary grows faster than a general's salary, then their earnings "approach" each other in percentage terms – although they still differ nominally. That means that the multiplier (e.g. a general earns 3.48 times more than a private) is falling. Figure 5 shows the changes in the private's salary multiplier in 2025 compared to 2016.

The data in Figure 5 indicate a flattening of the structure of salaries in the Ministry of National Defense. In 2016, the difference between a private and a general was greater (the multiplier was about 5). In 2025, a general earns "only" 3.48 times more than a private.

Figure 6 presents, for illustrative purposes, the multiplier of a private's salary converted into respective salary groups in 2025 for given military ranks.

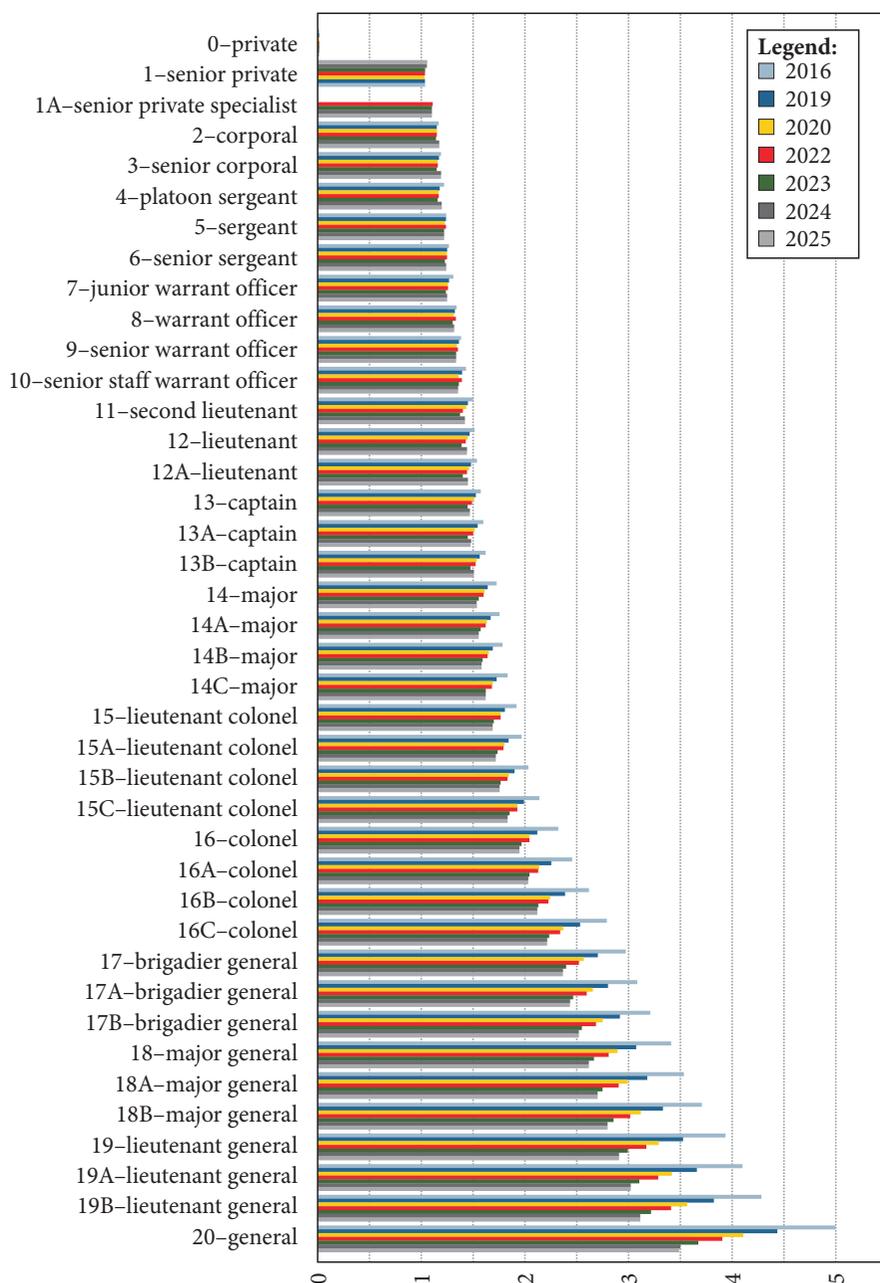


Fig. 4. Bar chart of the multiplicity of the privates' remuneration compared to other remuneration groups in the Ministry of National Defence in respective years between 2016-2025

Source: own study based on data obtained from respective regulations of the Minister of National Defence

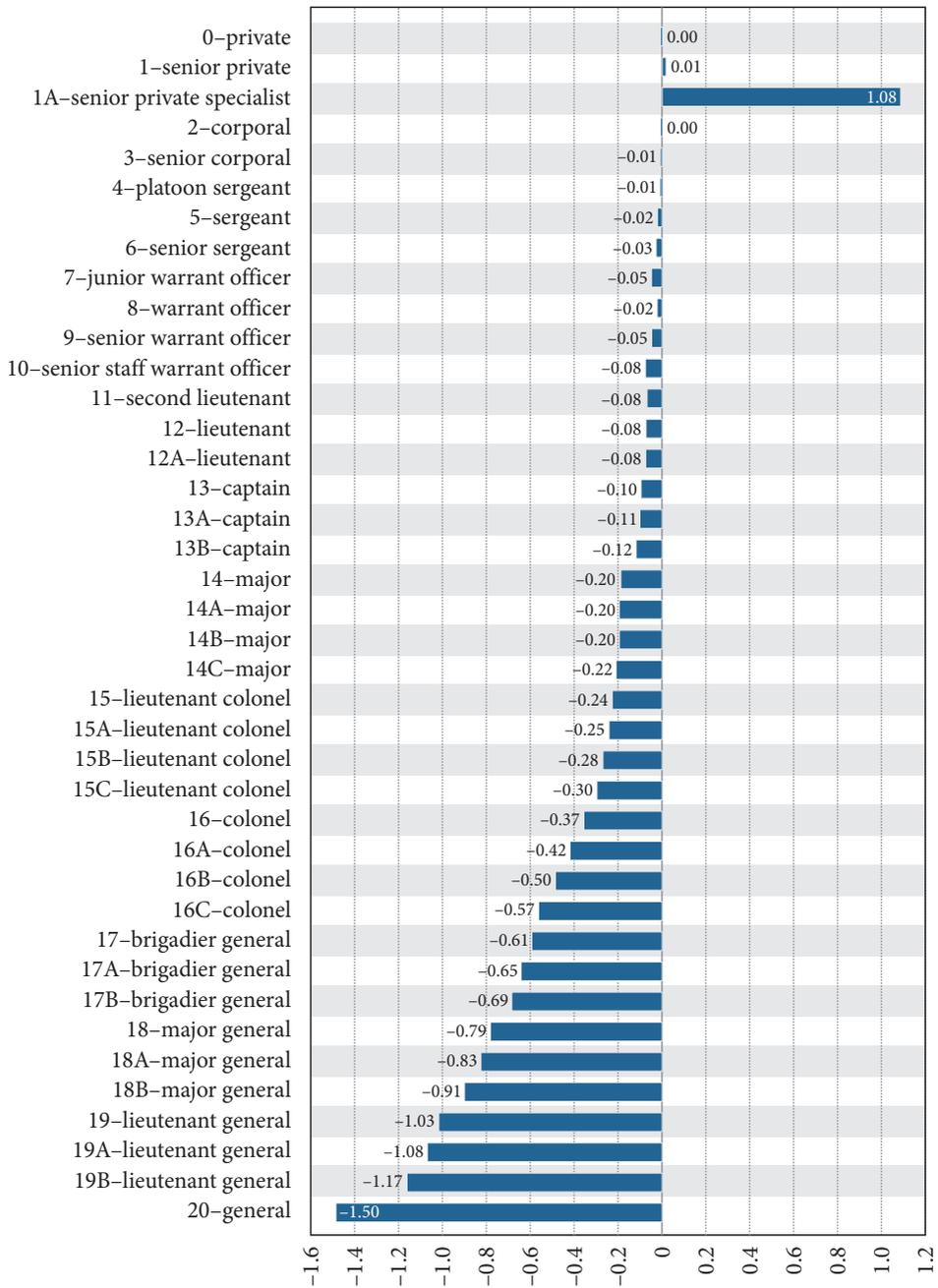


Fig. 5. Bar chart of the change in the multiplicity of the remuneration of privates compared to other remuneration groups in the Ministry of National Defence between 2016 and 2025

Source: own study based on data obtained from respective regulations of the Minister of National Defence

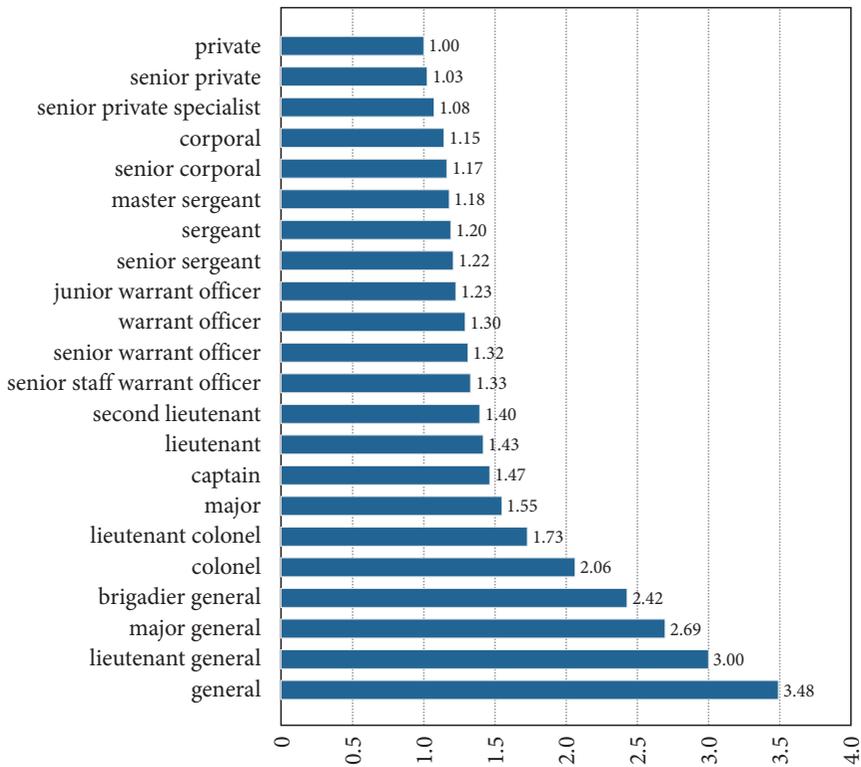


Fig. 6. Multiplier of the remuneration of soldiers in the Ministry of National Defense in Poland by rank compared to the remuneration of privates in 2025

Source: own study based on data obtained from respective regulations of the Minister of National Defense

When evaluating the data presented in Figure 6, it is worth comparing the colonel's (as well as generals') multiplier to the salary of a private. It should be high enough to motivate, among other things, so as to improve qualifications and enable travels abroad. It should be emphasized that to become a colonel (general), one has to:

- have definitely over 25 years of service;
- complete dozens of courses, trainings, postgraduate studies, often abroad;
- command hundreds of people and equipment worth millions of PLN;
- master languages, be available 24/7;
- remember that those are people burdened with decision-making stress,
- last but not least, be able to face criminal and moral responsibility.

To sum up, it can be stated that colonels and generals receive remuneration only slightly higher than a person with no experience, without higher education, just starting their service.

3. Simulation

The multiplier of the pay of privates in the US Army converted into Polish military ranks in 2024 compared to the pay of private soldiers in 2025 is as follows (see Figure 7).

In the US Army, the multiplier of officers' salaries, especially from the rank of colonel, is much higher than in Poland. People with such high ranks earn significantly more in percentage terms than a person with no experience in the private group. For example, the multiplier of a colonel is 3.61, and of a full general 9.91.

Figure 8 shows a simulation that generates how much the multiplier of salaries in Poland should be increased to adapt them to the US Army.

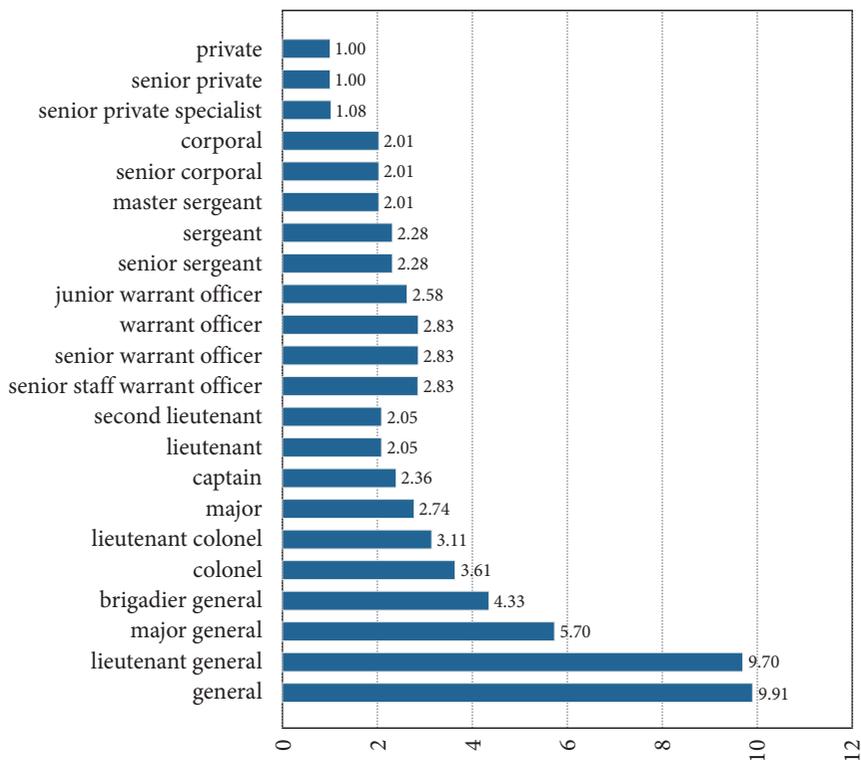


Fig. 7. US Army pay multiplier converted into Polish military ranks in 2024 compared to private pay

Source: own study based on: Military Compensation, 2025

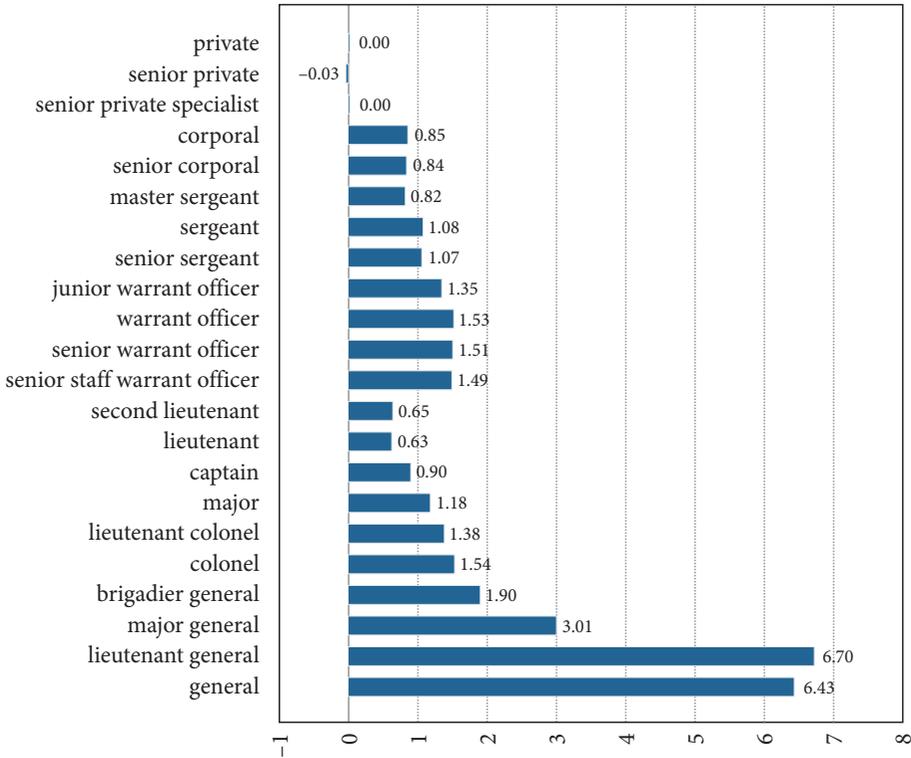


Fig. 8. Bar chart of the variant of the increase of the multiplier in percentage points for respective military ranks in the Ministry of National Defense in Poland, per private, in order to adjust the remuneration to the US Army algorithm

Source: own study based on: Military Compensation, 2025

The largest increases in the multiplier are required in the general rank groups. For a lieutenant general by 6.7 points, for a full general by 6.43, and for example for the colonel analyzed earlier by 1.54 points. The point changes in the multipliers outlined in Figure 8 will result in the following salary increases.

The proposed simulation indicates that the highest salary increases should occur in the general ranks. For instance, a brigadier general ought to have a base salary of around PLN 27 252, and a colonel PLN 22 718.

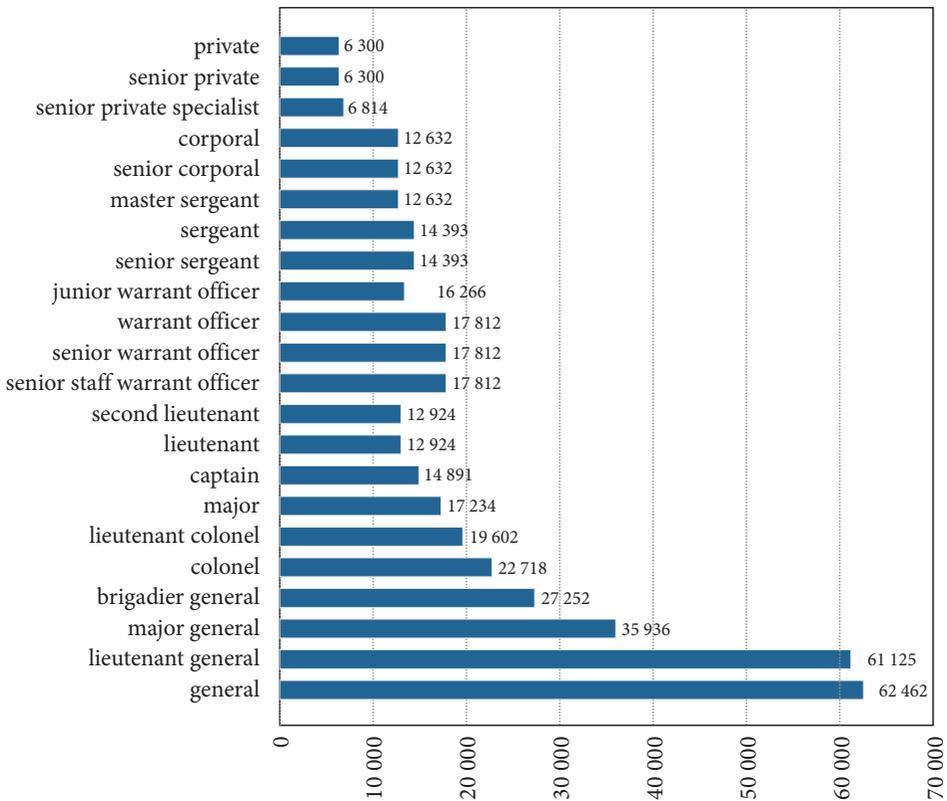


Fig. 9. Bar chart of the variant of remuneration in PLN for respective military ranks in the Ministry of National Defense in Poland adapted to the US Army algorithm (assuming the current remuneration of privates at PLN 6300)

Source: own study based on: Military Compensation, 2025

Summary and conclusions

The analysis of data on soldiers' salaries in the Ministry of National Defense between 2016-2025 shows a clear upward trend in salaries at all military levels. The largest nominal increases in salaries apply to generals, but in percentage terms the largest increases are observed in the lowest groups, such as privates and corporals.

Between 2023-2025, the dynamics of pay increases increased significantly, which can be attributed to the level of inflation, the growing increase in living expenses and the increased defense needs of the country. At the same time, a process of flattening the salary structure was noticed – the differences between the lowest and highest salaries are decreasing. For example, the multiplier of a general's salary relative to a private fell from 4.99 (in 2016) to 3.48 (in 2025).

Although generals and colonels formally earn more, the differences do not reflect their high responsibility, experience and job requirements. Compared to the US Army, Polish salary multipliers are much lower. In the USA, for example, a full general earns almost 10 times more than a private, while in Poland – only 3.48 times.

The simulations conducted show that in order for the salaries of Polish soldiers to match the American realities, the largest corrections should apply to the general ranks. For example, the salary of a colonel should increase to approx. PLN 22 718, and that of a brigadier general to approx. PLN 27 252.

To sum up, in NATO countries such as the USA, Great Britain, France, and Germany, multipliers and differences between classification groups are precisely set as a tool for personnel management. It is also worth emphasizing that the multipliers adjust to the labour market and living costs, as well as encourage specialization, improving knowledge of foreign languages, command, and foreign service.

In Poland, the multipliers are too flat, which in the long term may cause promotion stagnation, turnover among experienced soldiers, and the outflow of technical and IT staff.

Increases in military pay multipliers could significantly improve motivation to enhance competences, but only if they are consistent with promotion and real requirements, the increase is proportional to responsibility and competences, and the system is transparent and predictable.

REFERENCES

- [1] DYWIZJON303.PL, 2025. *Praca w wojsku – wszystko, co powinieneś wiedzieć*, <https://dywizjon303.pl/militaria/praca-w-wojsku-wszystko-co-powinienes-wiedziec/> (accessed: 10.02.2025).
- [2] GÓRNIĄK, J., 2013. *Youth or experience? Human capital in Poland. Report summarizing the 3rd edition of the BKL study of 2012*, <https://www.parp.gov.pl/storage/publications/pdf/16433.pdf> (accessed: 16.02.2025).
- [3] HORBACZEWSKI, R., 2024. *Cywil z oczopląsem nie zawsze zostanie wykluczony ze służby wojskowej*, <https://www.prawo.pl/samorzadz/jakie-choroby-i-urazy-zwalniaja-ze-sluzby-wojskowej,520300.html> (accessed: 9.03.2025).
- [4] JURGILEWICZ, M., MALEC, N., PIWOWARSKI, J., KOZICKI, B., 2021. Forecasting the reserve money of the Central Bank of Poland in the aspects of economy security, *Journal of Security and Sustainability Issues*, Vol. 11, No. 1, pp. 525-536.
- [5] KOWALSKI, J., 2020. The role of the armed forces in ensuring military security, *Bezpieczeństwo. Teoria i Praktyka*, No. 2, pp. 45-60.
- [6] KOZICKI, B., KALWASIŃSKI, M., 2021. *Multivariate comparative analysis of unemployment rates in the United States and China. COVID-19 versus economic security*, [In:] *Proceedings of the 37th International Business Information Management Association Conference (IBIMA)*, 30-31 May, Cordoba, Spain, pp. 510-516.
- [7] KOZICKI, B., MITKOW, SZ., SOWA, B., 2021. Forecasting in the sphere of real estate purchase in Poland for 2021 in terms of economic security, *Modern Management Systems*, No. 2, pp. 23-37.

- [8] LATOSIEWICZ, D., KOZICKI, B., TOMASZEWSKI, J., 2025. *Planowanie naboru żołnierzy w korpusie szeregowych w Siłach Zbrojnych Rzeczypospolitej Polskiej wobec współczesnych zagrożeń bezpieczeństwa militarnego*, Warszawa: Wojskowa Akademia Techniczna.
- [9] Law, 2022. Law of 11 March 2022 on Homeland Defence (consolidated text: Journal of Laws of 2024 item 248) – Ustawa z dnia 11 marca 2022 r. o obronie Ojczyzny (t.j. Dz.U. 2024 poz. 248), <https://isap.sejm.gov.pl/isap.nsf/download.xsp/WDU20240000248/U/D20240248Lj.pdf> (accessed: 9.03.2025).
- [10] MILITARY COMPENSATION, 2025. *Active Duty Pay*, <https://militarypay.defense.gov/Pay/Basic-Pay/Active-Duty-Pay/> (accessed: 5.03.2025).
- [11] MISZTAŁ, J., 2024. *Ile kraje NATO wydają na zbrojenia? Coraz więcej z nich przeznaczają 2 proc. PKB*, <https://www.bankier.pl/wiadomosc/Ile-kraje-NATO-wydaja-na-zbrojenia-Coraz-wiecej-z-nich-przeznacza-2-proc-PKB-8695215.html> (accessed: 9.03.2025).
- [12] PASŁAWSKI, K., 2025. *48 proc. firm IT rekrutuje, by utrzymać przewagę na rynku*, <https://crn.pl/aktualnosci/48-proc-firm-it-rekrutuje-by-utrzymac-przewage-na-rynku/> (accessed: 10.02.2025).
- [13] PORTAL-MUNDUROWY.PL, 2025. *Nowa siatka uposażeń żołnierzy weszła w życie*, <https://portal-mundurowy.pl/index.php/aktualnosci/nowa-siatka-uposazzen-zolnierzy-weszla-w-zycie-mon> (accessed: 26.02.2025).
- [14] STATISTA.COM, 2025. *Average gross salary based on different military ranks in Poland in 2024 (in zloty)*, <https://www.statista.com/statistics/1303640/poland-gross-salary-based-on-different-military-ranks/> (accessed: 10.03.2025).
- [15] SZUMSKI, CH., 2025. *In the vanguard: Eastern Europe's military spending efforts*, <https://www.euractiv.com/section/politics/news/in-the-vanguard-eastern-europes-spending-efforts/> (accessed: 10.03.2025).
- [16] TILLES, D., 2024. *Poland to be NATO's biggest defence spender this year as proportion of GDP*, https://notesfrompoland.com/2024/06/19/poland-to-be-natos-biggest-defence-spender-this-year-as-proportion-of-gdp/?utm_source=chatgpt.com (accessed: 26.02.2025).
- [17] WANAT, E., 2017. *Wynagrodzenie i jego funkcje*, <https://wynagrodzenia.pl/artykul/wynagrodzenie-i-jego-funkcje> (accessed: 9.03.2025).
- [18] WOJSKO-POLSKIE.PL, 2025a. *Co możesz zyskać? Finance*, <https://www.wojsko-polskie.pl/zostan-zolnierzem/co-zyskujesz/> (access: 9.03.2025).
- [19] WOJSKO-POLSKIE.PL, 2025b. *Przyszłe wyzwania dla NATO*, <https://www.wojsko-polskie.pl/articles/tym-zyjemy-v/2024-03-268-przyszze-wyzwania-dla-nato/> (accessed: 16.02.2025).