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# Military Compensation in the Soviet Union

A Research Paper

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# Military Compensation in the Soviet Union

A Research Paper

*Information available as of December 1980 has been used in preparing this report.*

This paper was prepared by   
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This paper was coordinated with the Office of Economic Research and with the National Intelligence Officers for General Purpose Forces and Strategic Forces.

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## Military Compensation in the Soviet Union

### Overview

The Soviet system of military compensation is structured to retain and motivate careerists and to provide minimal support for conscripts fulfilling their terms of service. The system incorporates both monetary allowances—the primary form of compensation for career personnel—and “physical” allowances, which include food, clothing, and housing and constitute the bulk of a conscript’s meager compensation.

This approach enables the Soviets to pay high wages to careerists—providing servicemen an incentive to remain in the military—and still keep overall compensation expenditures low. Compensation alone probably has less effect on career decisions than do the status, perquisites, and Communist Party pressures associated with military life. Career officers are expected to become members of the Communist Party and must reckon with the likelihood of party displeasure if they leave the military.

Our estimates of compensation are based on a detailed analysis of the manning practices, rank structure, and compensation system of the Soviet armed forces. This analysis indicates that the Soviet forces have larger proportions of officers and junior enlisted men and a smaller proportion of career noncommissioned officers (NCOs) than US forces have. The Soviet practice of using junior officers rather than NCOs for “hands on” technical work, low retention rates for enlisted personnel, and the USSR’s reliance on short-term conscripts to provide the bulk of its military manpower account for these dissimilarities.

Marxist theory and a personnel structure dominated by conscripts cause the Soviet system of monetary compensation to differ significantly from pay practices in the US military:

- Soviet conscripts receive a token cash wage that is approximately one-twentieth that of career enlisted personnel. Career personnel, most of whom are officers, make up about 25 percent of the Soviet military but get over 90 percent of the pay. In the United States, officers and senior NCOs (E-7 and above) constitute about 20 percent of the military and get less than 40 percent of the pay.
- Soviet pay is determined more by organizational position or “billet” than by rank. Position pay accounts for virtually all of a conscript’s pay and about half of an officer’s pay. Only a third of an officer’s pay is determined by rank. The remainder comes from longevity and special pay. The pay system for the US military is based primarily on rank.

The US and Soviet systems both use supplementary payments to compensate for difficult conditions of service and special skills. The Soviets award these payments for service in remote areas or high altitudes and for sea duty, flying, parachuting, and a variety of skills like cryptologic or foreign language proficiency. The Soviets also provide up to triple longevity credit for duty in remote areas, high altitudes, and at sea. US military incentive programs are less complex and do not include extra longevity credit for arduous duty.

The Soviet pay system has changed little since World War II. The adjustments that have been made have favored junior officers, warrant officers, and extended-duty enlisted men. Since the mid-1960s, the average pay of careerists has increased approximately 35 percent. Conscript pay changed once, in 1961, when 80 kopeks were added to monthly pay in place of a cigarette ration.

Despite the growth in pay for Soviet military careerists, their financial advantage over their civilian counterparts appears to be shrinking. While the average careerist's pay increased 35 percent from 1965 through the late 1970s, civilian wages increased nearly 60 percent.

Military officers are nevertheless well rewarded financially. Generals and colonels receive compensation comparable to that of senior party officials and managers of major industries. Junior officers get two to three times the income of teachers, doctors, and industrial workers. Although a conscript's monetary allowance is low, when the value of food, clothing, and housing is added to it, his compensation is only slightly below the minimum wage of 70 rubles per month for a civilian.

Overall personnel costs include not only pay, food, clothing, and quarters but also medical supplies, Ministry of Defense social insurance contributions, and travel expenses. When measured in constant rubles, these costs increased by 15 to 17 percent in absolute terms over the past 10 years, primarily because of an increase in military manpower. Outlays for the nonpersonnel components of Soviet defense programs grew much faster and were nearly 60 percent higher in 1980 than in 1970. Consequently, the share of defense spending for active-duty personnel decreased from approximately 18 percent to 13 percent over this period.

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## Military Compensation in the Soviet Union

### Background

We have analyzed in detail the manning practices, rank structure, and compensation system of the Soviet armed forces. The resulting information was assembled in computerized data bases so that we could calculate overall military manpower costs, which are a significant element of Soviet defense spending. This detailed approach was necessary because the Soviet Government classifies compensation rates and numbers of personnel Secret and compartments much of the information. This paper summarizes our work and assesses how effective the compensation system is in meeting manpower requirements.<sup>1</sup>

**Concept of Compensation.** The Soviet system of military compensation is structured to retain and motivate careerists and to provide austere support for conscripts fulfilling their terms of service. A Soviet publication on the national compensation system defines the two main forms of compensation as "monetary" and "physical."<sup>2</sup> Monetary allowances are the primary form of compensation for officers, warrant officers, and career enlisted men. For conscripts, however, monetary allowances are intended only as supplements to food, clothing, and housing, which constitute an austere level of "physical" compensation.

Careerists are given high pay in comparison to civilians (as viewed by US standards) and relative to conscripts. The emphasis on monetary remuneration creates an incentive for professional military personnel to remain in the service and undertake difficult assignments.

**Scope of Coverage.** The Soviet military compensation system applies to uniformed members of the Soviet Ministry of Defense, the Border Troops of the Committee for State Security (KGB), and Internal Security Troops of the Ministry of Internal Affairs

<sup>1</sup> See *Political Economy, Socialism—The First Phase of the Communist Method of Production, Part I*, P. V. Sokolov, editor, Moscow, 1974. Translated by US Joint Publications Research Service 63693-1, 17 December 1974.

(MVD). Although the Soviets define all elements of these organizations as "military" and subject them to the provisions of their *Law on Universal Military Service*, this paper calculates military compensation for only those forces filling what in the United States would be considered national security roles. This definition includes some 4.3 million men in the five armed services of the Ministry of Defense and the KGB Border Troops. We exclude from our calculations the approximately 1 million men who serve in the Ministry of Defense construction, transportation, and civil defense troops and in the MVD Internal Security Troops.

In our estimates of compensation costs, we include only those benefits that uniformed servicemen receive. We have excluded the cost of retired personnel, those receiving disability benefits, civilians working for the Ministry of Defense, and reservists.

**Confidence.** The accuracy of our compensation estimates depends on our independently derived estimates of Soviet manpower, personnel structure, and individual personnel costs. In all categories we are more confident of our estimates for higher levels of aggregation than for lower levels. We believe our estimates of manpower are unlikely to be in error by more than 10 percent, although the margin of error is wider for some individual categories. We have high confidence in our knowledge of compensation for conscripts and junior officers through the rank of major but are less sure of our calculations of compensation for senior officers and those in rear service positions.

Our confidence in the estimates also varies with the time period under consideration. We have a large amount of manpower and pay data for the period from the early 1960s through the early 1970s. Because a lag of several years can occur between a wage change and our detection of it, our confidence in the estimates of the compensation rates for the last few years is lower. This problem is not significant for our personnel cost

estimates, however, because they are calculated in terms of 1970 pay rates—the base year for the price data underlying CIA estimates of total Soviet defense costs and GNP.

**Personnel Structure**

Our estimates of Soviet military compensation reflect our data on military compensation practices and numbers of Soviet military personnel by organizational unit, rank, and position structures for each type of unit. These data also are useful in illustrating differences in manning practices among elements of the Soviet military and between the US and Soviet forces.

**Categories.** The Soviet armed forces consist of officers, extended servicemen, and conscripts. Career officers are commissioned by some 160 academies and commissioning schools, which are analogous to US service academies. The majority of applicants for these higher military schools come from outside the armed services, but in some cases a career enlisted man is accepted into a commissioning school. In lieu of completing higher military school, a warrant officer may take a shorter program to become an officer but, in this case, cannot be promoted beyond the rank of senior lieutenant. Soviet officers, unlike their US counterparts, normally complete full careers of 25 years.

A small share of the officers entering active duty are reserve officers commissioned primarily through programs at civilian universities. Another source of reserve officers is conscripts who have a secondary education and have passed qualifying exams toward the end of their term of conscripted service. Reserve officers rarely serve more than a few years.

The Soviets categorize warrant officers and career noncommissioned officers as extended servicemen. They are recruited from among conscripts completing their terms of mandatory service. Conscripts who wish to become warrant officers attend school for up to six months. Extended servicemen—both NCOs and warrant officers—sign renewable contracts for specified periods of time that can total 25 years.

Conscripts serve a term of mandatory active military duty. Most are inducted between the ages of 18 and 21 and serve for two years (three years in seagoing units of

the Navy and KGB Border Guards). Individuals who are deferred until after graduating from higher educational institutions are given reductions in their terms of service of six to 12 months.

**Rank Structure.** The preceding personnel categories account for different shares of the five armed services. The Air and Strategic Air Defense Forces have larger proportions of officers than the other services because aviation requires greater numbers of pilots and technically skilled personnel. The relatively large proportion of cadets in these services reflects the need for trained pilots and specialized personnel<sup>1</sup> (see figure 1).

The Ground Forces, Strategic Rocket Forces, and Navy have approximately the same proportion of conscripts. The quality of conscripts, however, is not the same for all of the services. The Navy and Strategic Rocket Forces have first choice when young men are drafted and pick the better qualified men from the draft pool. In addition, the seagoing elements of the Navy keep conscripts for three years, providing them a longer period for training on the job and helping them attain greater technical proficiency.

Over 70 percent of the ground force combat units are not fully manned. The lowest strength units have a high officer-to-enlisted ratio in peacetime. During mobilization these units would swell with reservists, largely in the lower ranks, increasing the percentage of conscripts shown in figure 1.

**Comparison With US Forces.** Overall, the Soviet armed forces contain a larger proportion of officers and a smaller proportion of NCOs than do the US armed forces (see figure 2). These dissimilarities reflect different approaches to the assignment of personnel. Soviet officers perform many tasks that in the United States would be performed by senior NCOs and warrant officers. This practice reduces the requirement for large numbers of enlisted careerists. For example, the complement of a Soviet destroyer-class ship includes approximately 10 percent officers and 10 percent enlisted careerists and warrant officers. Comparable US units are manned with about

<sup>1</sup> The methodology underlying these estimates is described in appendix B.

Figure 1  
Rank Distribution of Soviet Military Personnel  
by Service

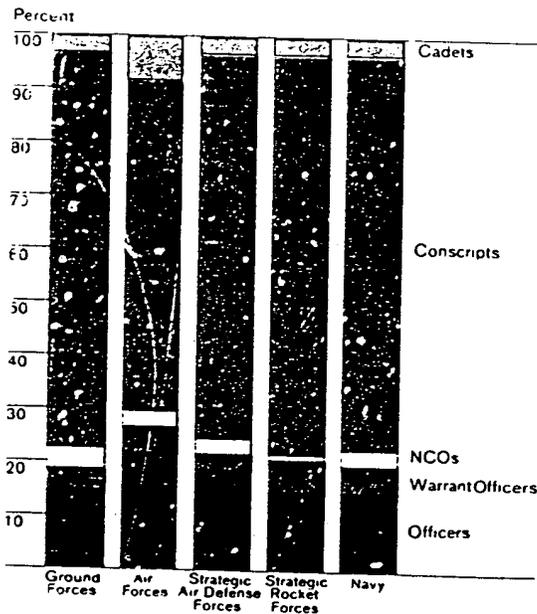
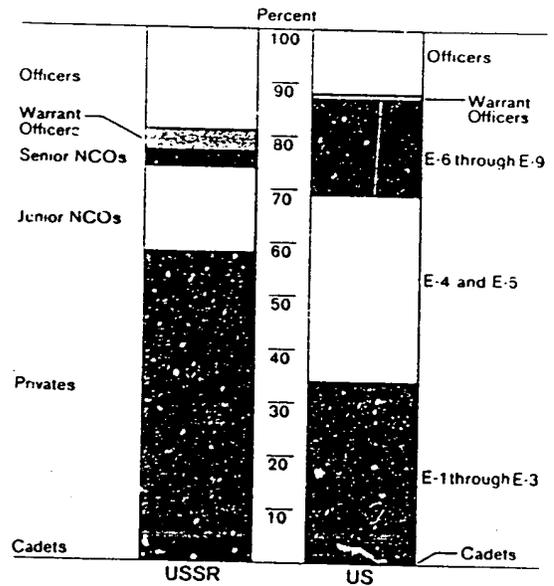


Figure 2  
Rank Distribution of Soviet and  
US Military Personnel, 1979



Source of US Data: *Selected Manpower Statistics FY 1979*,  
Department of Defense, March 1980.

□

□

5 percent officers and 35 percent enlisted careerists.\*

The Soviet forces have proportionately two-thirds more people with the rank of private than the US forces have in the lowest enlisted grades (E-1 through E-3). The Soviet force is structured with more positions at the lower ranks to accommodate large numbers of conscripts with limited training and short terms of service. Few of the conscripts—1 or 2 percent—remain in the service after their initial term.

Furthermore, a massive semiannual turnover of conscripts continually feeds new personnel into the

\* In order to make a comparison with Soviet extended-duty personnel, we counted US enlisted personnel with more than four years of service as "careerists."

military. This continual arrival of raw conscripts mandates simplicity in design, operations, and maintenance practices. Soviet weapon designers have eased potential maintenance problems by emphasizing the concepts of reliability, standardization, and limited modification from one generation of weapons to the next. Soviet training and maintenance practices complement this design philosophy. Conscript training—both in the classroom and on the job—focuses on developing skills in narrowly defined specialties. Technically trained junior officers and extended servicemen closely supervise conscripts using operating and maintenance norms that leave little to the discretion of unit personnel. Stress on component replacement, rather than repair, at the unit level also serves to minimize shortcomings in the training of conscripts.

### Monetary Compensation

*Types of Pay.* The Soviets pay their military personnel primarily on the basis of the skills and responsibilities associated with each man's duty position or "billet." In this pay system, rank pay is of secondary importance and, when granted, usually is about half of position pay. A wide variety of supplementary allowances are applied for length of service and special conditions.

*Rank Pay.* All personnel in the armed forces have military rank, but only officers and warrant officers receive pay for it. For career NCOs and conscripts, ranks carry no remuneration.

*Position Pay.* Pay for position reflects the amount of responsibility and technical competence required by each billet. It adds flexibility to the personnel structure by providing a reward that is largely independent of rank. Position pay is determined by the echelon of command, the position within a unit, and the technical requirements of the billet.

Billets are loosely associated with rank. A person in a junior rank would not receive a senior command position. In order to advance in rank, one must prove himself in a billet associated with a higher rank.

Differentials in position pay can cause a person of lower rank to get about the same pay as a person with greater rank. For example, in 1970 a lieutenant colonel typically received 165 rubles monthly in rank pay and longevity pay, while a major got 135 rubles. If the major served as a battalion commander, however, he earned approximately 140 rubles monthly for his position, but a lieutenant colonel on a regimental staff would have received 125 rubles in position pay. In total, the major would have earned 275 rubles and the lieutenant colonel 290 rubles.

Warrant officers and career noncommissioned officers also receive position pay according to a set of rates that usually are lower than those for officers. Duty pay is higher for those who command troops and lower for those in the rear or technical services. These rates apply equally to warrant officers and noncommissioned officers.

Conscript position pay is disbursed according to a scale that groups positions according to the rank authorized by tables of organization. A conscript's pay is determined by the position he fills, however, not by his actual rank. Thus, a private assigned to a sergeant's position receives a sergeant's position pay, and a sergeant assigned to a private's position receives a private's position pay. These mismatches occur when the skills of replacement personnel—particularly those with specialist training—do not fit organizational vacancies and when men awaiting separation are assigned temporarily to lower paying positions.

*Time-In-Service Pay.* Allowances for length of service provide career personnel with proportional increases to their position and rank pay. There are separate longevity pay rates for officers and extended servicemen. Most conscripts receive no longevity pay. (Those serving aboard ships receive additional pay during their third year.) Air crew members and seagoing personnel receive special longevity credits. For example, one year of flight duty counts as two or three years of service depending on the type of aircraft flown. Each year of sea duty on surface ships is credited as one and a half years of service. Aboard diesel-powered submarines, a year of duty is credited as two years, and on nuclear submarines each year counts as three.

*Supplementary Pay and Benefits.* Soviet servicemen receive supplementary allowances to compensate for difficult conditions of service or for special qualifications. These consist of cash payments, gifts, or special retirement credits. The types of supplementary pay and their recipients are listed in table 1 and described in appendix A.

*Pay Incentives.* The Soviets do not appear to fully exploit their military pay system as a personnel management tool. Because of a Soviet obsession with secrecy, pay rates are classified and hidden from the majority of servicemen. Despite the secrecy surrounding specific pay rates, the general rules of pay probably are known. A man in the Navy realizes that service at sea is more remunerative than service on land, and a person in the army probably knows about the pay benefits of serving in the Far East.

Table 1

Recipients of Supplementary Payments

Type of Pay	Officers	Warrants	Career NCOs	Conscripts
Specialists	X		X	
Instructor	X			X
Classified document handling	X			
Cryptographic duty	X	X		
Foreign language proficiency	X			
Separation from service	X	X	X	X
Paratroop	X	X	X	X
Bad weather flight duty	X			
Medical	X	X	X	
Remote area	X	X	X	
High altitude	X	X	X	
Sea				
Basic	X	X	X	X
Submarine	X	X	X	X
Torpedo boat	X	X	X	X
Minesweeper	X	X	X	
Hydrographic service	X			
Bonus	X			
Foreign duty	X	X	X	X
Awards	X	X	X	X

[ ]

Secrecy about pay probably makes no difference, however, because conscripts serve where ordered regardless of pay differentials. Pay may have some influence on officers' duty preferences, but their decision also is affected by demands of the service, career considerations, and living conditions. [ ]

The pay system probably also affects the recruitment and retention of careerists in the Soviet military. Because pay increases sharply with position and time and is high relative to Soviet civilian standards, it can influence career decisions. Other factors also weigh heavily—particularly a tradition of lifetime service for military officers, the geographical and social separation of many military personnel from society, and party pressure on officers. Career officers generally are expected to become Communist Party members and must reckon with the likelihood of party displeasure—which can affect subsequent civilian careers—if they leave the military. [ ]

**Distribution.** Most of the USSR's military personnel are low-paid conscripts. This keeps the total payroll low, even though some segments of the military are well paid. Career personnel, mostly officers, make up about 25 percent of the personnel but receive over 90 percent of the payroll. Military pay in the United States is more evenly distributed. US officers and senior NCOs (E-7 and above) make up 20 percent of the armed forces and receive 38 percent of the payroll. [ ]

Table 2 compares the distribution of pay in US and Soviet forces on the basis of a private's pay in each country. Pay rates for the Soviets reflect typical aggregates of position, rank, longevity, and special pay for individuals with the ranks noted. US pay data include base and incentive pay and allowances for food and housing. An individual's rate of pay could vary widely from the factors used in this table. [ ]

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Table 2

Average Pay for Military Personnel  
Expressed as a Factor of a Private's Pay

USSR		United States	
<b>Officers</b>			<b>Officers</b>
Marshal of the Soviet Union	182		
Chief Marshal	157	9.6	General
General	151		
Colonel General	133	9.5	Lieutenant General
Lieutenant General	125	8.6	Major General
Major General	104	7.6	Brigadier General
Colonel	87	6.6	Colonel
Lieutenant Colonel	77	5.4	Lieutenant Colonel
Major	64	4.4	Major
Captain	56	3.6	Captain
Senior Lieutenant	49	2.8	First Lieutenant
Lieutenant	43	2.0	Second Lieutenant
Junior Lieutenant	36		
<b>Extended Servicemen</b>			<b>Warrant Officers</b>
Warrant Officer	44	3.9	Warrant Officer (W-4)
		3.2	Warrant Officer (W-3)
		2.6	Warrant Officer (W-2)
		2.3	Warrant Officer (W-1)
<b>Enlisted Personnel</b>			<b>Enlisted Personnel</b>
Master Sergeant	32	3.3	Sergeant Major
Senior Sergeant	29	2.7	Master Sergeant
Sergeant	27	2.3	Sergeant First Class
Junior Sergeant	23	1.9	Staff Sergeant
		1.5	Sergeant
<b>Conscripts</b>			
Master Sergeant	4.0	1.3	Corporal
Senior Sergeant	2.7		
Sergeant	2.3		
Junior Sergeant			
Private First Class	1.2	1.2	Private First Class
Private	1.0	1.1	Private (E-2)
		1.0	Private (E-1)

\* Ground Forces ranks are listed, but the pay data include all services.



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The dissimilarity in the overall distribution of pay of the US and Soviet forces emphasizes the lowly position of the Soviet conscript. Among career personnel, the pay relationships in the two countries are closer. The pay of a Soviet chief marshal is 3.7 times the pay of a Soviet lieutenant, while the pay of a US general is 4.8 times the pay of a US second lieutenant. A Soviet captain receives about 1.3 times the pay of a lieutenant, and a US captain receives around 1.8 times the pay of a second lieutenant. The Soviet warrant officer—whom the Soviets consider to be more an NCO than an officer—receives pay approximately equal to that of a lieutenant, but the US warrant officer receives about half again as much as a second lieutenant. Similarly, Soviet career NCOs lag behind their US counterparts if their pay is compared to that of officers. □

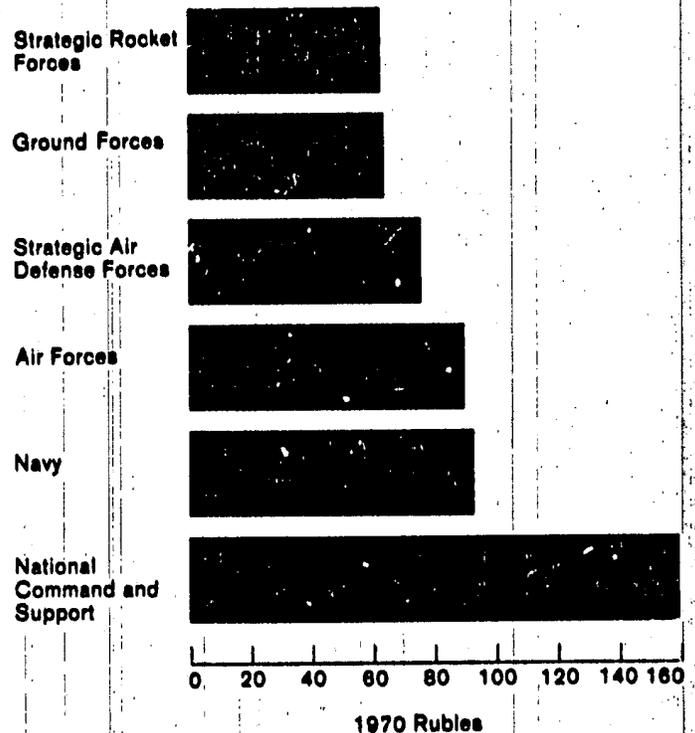
The average pay of personnel in the Soviet military services varies greatly because of differing rank structures, rates of position pay, and allocations of special allowances. People in national-level support organizations such as the General Staff, where there is a high rank structure and high pay for position, receive the greatest per capita pay (see figure 3). □

Among the services, average monthly pay is highest for Navy and Air Force personnel. In the Air Force the high per capita pay is attributable to the large share of pilot officers. The special allowances associated with service at sea and with submarine and flying duty escalate average monthly wages for naval personnel. □

Per capita wages also vary among the US services. Air Force personnel receive the highest per capita wages, and Marine Corps personnel receive the lowest. The differences in per capita pay primarily reflect varying rank structures. □

**Changes.** We examined Soviet military pay for the years since World War II and found that pay rates have changed little since then. Wages for all conscripts changed once nearly 20 years ago when 80 kopeks were added to monthly wages in lieu of a ration of cigarettes. Most changes have occurred during the last 10 years and have benefited career soldiers:

**Figure 3**  
**Average Monthly Pay, 1980**



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- In 1956, the pay of naval conscripts and naval career NCOs was reduced 75 to 50 percent to lessen interservice disparities.
- In 1971, rank pay for junior officers through the rank of captain was increased by 20 rubles per month and for majors by 10 rubles per month, causing overall raises for these ranks ranging from about 5 to 15 percent with the lowest ranks receiving the greatest increases.
- In 1974, rank pay increased by 20 rubles per month for officers through the rank of colonel and by 15 rubles for warrant officers, causing pay for the affected officers to rise by 7 to 10 percent.

- Between 1968 and 1974, the position pay scales for extended servicemen were changed to increase the number of grades and probably to raise pay rates.
- In 1978 there may have been a raise in foreign-duty pay for conscripts in the Group of Soviet Forces in Germany. At that time, foreign-duty pay, which is paid in the currency of the host country and applies to all military personnel serving outside the USSR, was doubled. No corresponding increases were reported for troops stationed within the USSR or elsewhere in Eastern Europe.

The pay system was affected when the rank of warrant officer was introduced in 1971. The purpose of this change was to give added status to noncommissioned careerists who were to be "officer assistants." They were to receive, unlike other nonofficer servicemen, some remuneration for their rank.

These changes caused the overall Soviet military pay bill to grow. We estimate that it costs the USSR 17 percent more to pay its current military forces at the most recent pay scales of which we are aware than it would cost if the military were still using 1970 pay scales. The share of total pay allocated to extended servicemen is about 2 percent greater and the share of officers and conscripts about 1 percent smaller. These changes have not increased the share of total defense spending accounted for by pay because there have been spending increases in the other elements of defense programs as well.

#### **Nonmonetary Compensation**

The Soviets view nonmonetary or "physical" compensation as an important complement to the pay system in providing an appropriate level of support to each category of servicemen. The primary forms of nonmonetary compensation are food, clothing, and housing.

<sup>3</sup> The initial warrant officer program apparently was unsuitable. All of the available extended-service NCOs were recruited as "officer assistants." In May 1973 the law was changed once again to reestablish the ranks of noncommissioned officers. The category of extended-service personnel now includes both noncommissioned and warrant officers.

**Food.** Service personnel receive prepared meals, food in kind, or an allowance with which to purchase food. Conscripts have no option but to eat prepared meals provided by their units.

Military forces consume more quality foods such as meat, fish, eggs, and vegetables per capita than the population as a whole. Over the past 20 years, the Soviet diet has improved and in the military diet quantities of meat and sugar have increased; butter, eggs, fruit, and milk have been added; the quality of bread and meat has improved; and the number of calories in the typical meal has increased. Details of Soviet subsistence practices and costs are found in appendix B.

**Clothing.** When a conscript is inducted, his civilian clothes are packaged and sent home; his needs for dress, working, and special-purpose uniforms are taken care of by the Ministry of Defense. Conscripts are issued readymade wear, and officers and reenlisted servicemen receive readymade items or material and money with which to hire a tailor. Reports indicate that sometimes the money allotted does not cover the cost of having the uniforms made.

The quality of clothing varies among military personnel. Some differences are attributable to rank. Senior officers have finer uniforms than junior officers; noncommissioned officers have clothing of a better grade than conscripts. The quality of uniform also varies with location. A large share of servicemen receive special winter uniforms, raising the total cost of their clothing. Details of how clothing costs are calculated appear in appendix B.

**Housing.** Housing is not a major expense to any individual in the Soviet Union and in monetary terms is not a major benefit to servicemen. The real benefit they gain is the assurance of receiving housing, which is in chronically short supply. Military housing is usually of better quality with more space per capita than in civilian life. Military personnel view their priority access to housing as a key advantage and an incentive—particularly for enlisted men—for pursuing military careers.

Officers, warrant officers, and extended servicemen live off base when possible and receive either an allowance for housing costs or an apartment. They are required to live on base when they are assigned to units that are located at "closed posts"—that is, those units that have a security requirement or are located in remote areas, at military airfields, or at ordnance depots. In these cases, career personnel receive living space for themselves and for family members living with them.

Conscripts must live on base or aboard their ships where accommodations are provided at no cost to them. Living space per individual is sparse in comparison to careerists. Conscripts are not accompanied by their families, but fewer than 5 percent are married.

#### **Personnel Support and Benefits**

The Ministry of Defense provides medical care, social insurance, and travel expenses for its members. Additionally, military personnel receive pensions, educational assistance, tax reductions, and other miscellaneous perquisites.

**Medical Care.** All Soviet citizens receive free medical treatment, so a serviceman probably does not recognize free medical care as a benefit of military life. Dependents of servicemen receive treatment at institutions of the Ministry of Public Health on the same basis as other Soviet citizens. Nonetheless, the Ministry of Defense has its own hospitals and medical staffs, and in garrisons where public facilities are unavailable, families use military medical institutions. Servicemen and members of their families are allowed sanatorium and health resort treatment when medically prescribed.

**Social Insurance.** All Soviet workers also are covered by social insurance—a form of disability protection. The Ministry of Defense probably makes payments to a national social insurance fund to cover the costs of medical treatment and pensions for disabled military personnel and to provide survivor benefits for the families of servicemen killed on duty. We believe that contributions are paid by the Ministry of Defense at established rates, estimated to average 7 percent of each serviceman's earnings.

**Travel.** Soviet servicemen travel at the time of induction, change of station, leave, and discharge. Their transportation is paid. In cases where the cost of rail travel is provided and a serviceman chooses to fly, he must pay the difference. Conscripts are allotted leave for sickness, for family problems, and on rare occasions, as a reward for meritorious service. Officers and reenlisted personnel are eligible for longer leave and greater travel benefits. In remote areas family members of such personnel also are entitled to travel allowances for annual leave.

**Pensions.** Pensions are not an immediate benefit for uniformed personnel, and we have not included them as compensation in figure 4. They are, however, included in our total estimate of Soviet defense costs. In 1980 we estimate that pensions accounted for about 1 percent of the total defense expenditure.

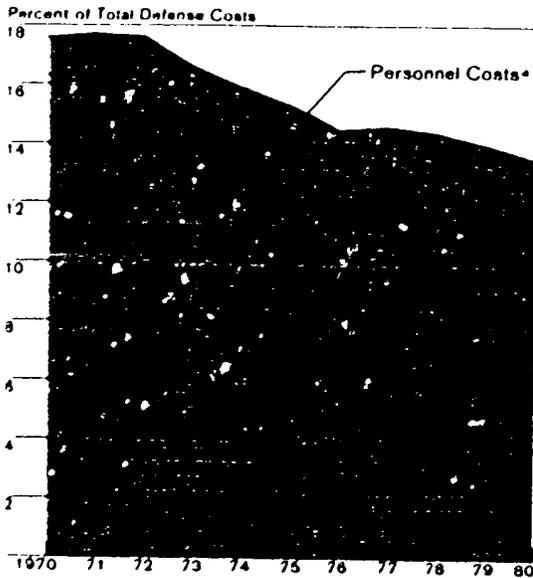
**Educational Assistance.** The Soviet constitution grants citizens the right to a free education, and Soviet law provides special educational benefits to servicemen. Beyond the basic military training establishments and commissioning schools, the military encourages both full-time and part-time continued education at its own institutions as well as at civilian facilities.

Although conscripts are barred from academic training while they are in the service, they receive vocational instruction during preinduction training and active duty that can provide them valuable skills usable in civilian careers. If military service interrupts a conscript's education, a place at an educational institution will be open for him upon the termination of his active duty.

Career servicemen are encouraged to take both military and civilian correspondence courses and evening classes while in the service. Such training is a prerequisite for moving to higher ranks and positions. Additional leave is given to prepare for examinations and to complete diploma projects for courses. The military academies, which are postgraduate institutions analogous to US war colleges, are available only to officers. Pay is continued while students are attending schools, and time is given for travel to such institutions.

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**Figure 4**  
**Personnel Costs as a Percent of Defense Spending**



\* Costs were calculated in 1970 rubles and exclude support for civilian personnel and military retirees.

Servicemen discharged into the reserves are exempted from entrance exams for civilian schools if they wish to further their education. Reservists who were officers or who extended their service may enroll in higher institutions without exams even if they have an incomplete secondary education. And if they have good military records, they may apply for state stipends for full-time schooling. Career servicemen released to the reserves because of poor health, age, or force reductions and not qualifying for pensions may apply for a stipend for full-time higher or specialized secondary schooling. ( )

**Tax Benefits.** Conscripts do not pay income tax, which averages 10 percent of a Soviet citizen's earnings, on their military earnings or on any financial bonuses or awards they receive. Other servicemen do pay taxes except on money earned for training and for extra

duties such as parachute jumps or sea duty, on tobacco allowances and separation pay, and for special duty such as performing as a military musician or artist. ( )

**Miscellaneous Benefits.** Conscripts do not pay for postage. If letters are sent through the troop unit, no payment is required. Furthermore, any letters addressed to the servicemen can be mailed without charge. ( )

Financial assistance is available for the care of the offspring of married servicemen. Families with more than two children or living in cities receive additional money per child. The assistance ranges from 7.5 to 22 rubles per month per child. ( )

When a man reenlists or becomes a warrant officer, he is given money for purchasing furniture. The amount of assistance varies from an extra month's pay for a man reenlisting for two years to two months' pay for a man reenlisting for six years or becoming a warrant officer. ( )

**Officer Privileges.** In addition to the extra money they receive, officers are granted perquisites such as moving to the head of lines, even in front of civilians, in public places and using special stores. If sufficiently senior, officers have official cars at their disposal. ( )

**Comparison of Military and Civilian Compensation**  
Military officers are paid highly relative to the average citizen. Generals and colonels receive compensation comparable to that of senior party officials and industrial managers. Most junior officers have two to three times the income of teachers, doctors, and industrial workers. Conscripts, on the other hand, receive a combination of monetary and physical remuneration slightly lower than the minimum prescribed wage of 70 rubles per month for civilian workers. ( )

Table 3 lists total compensation for selected military and civilian personnel in 1977, the most recent year for which these data are available. It indicates cash wages for civilians and includes the value of food and clothing received with the wages of military personnel. This adjustment is necessary because civilians spend, on the average, nearly half their wages for food and clothing, while military personnel receive these goods or an allowance for them in addition to their wages. ( )

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Table 3

**Selected Average Monthly Ruble Compensation of Military and Civilian Personnel in 1977 \***

Colonel General	822
Lieutenant General	776
Secretary of local party organization	700
Major General	658
Colonel	567
Manager of heavy industry enterprise	550
Lieutenant Colonel	508
Major	430
Captain	384
Senior Lieutenant	343
Lieutenant	322
Warrant Officer	314
Manager of light industry enterprise	300
Coal miner	270
Senior scientific research worker	260
Senior engineer	250
Longshoreman	250
Extended-service NCOs	247
Foreman in heavy industry	190
Welder	180
Truck driver	140
Unskilled laborer in heavy industry	140
School teacher	140
Doctor	120
Clerk	110
Laborer on collective farm	95
Nurse	80
Average conscript	67

Although military careerists are financially well rewarded, their advantage over their civilian counterparts appears to be shrinking. Between 1965 and 1977, the average military careerist's wage increased some 35 percent, while the average civilian wage increased 60 percent. The average military careerist received 2.2 times the pay of the average worker in

1965 and 1.9 times the pay of the worker in 1977—a comparative decrease of 14 percent. [ ]

**Compensation and Defense Outlays**

The annual cost of military compensation can be calculated by combining estimated Soviet outlays for military wages, food, and clothing with the prorated yearly resource costs of military housing. These elements of active duty personnel costs account for approximately 12 to 13 percent of Soviet defense outlays. [ ]

In addition to meeting its requirements for compensating military personnel, the Ministry of Defense must cover the resource costs of medical care, travel, and social insurance for active-duty servicemen. These additional costs are about 1 percent of spending and in combination with military compensation account for approximately 13 to 14 percent of Soviet defense spending (see figure 4). [ ]

Between 1970 and 1980, the share of defense spending for uniformed personnel (measured in constant rubles) decreased by 4 percent. This decrease occurred because the costs of research and development, weapons procurement, and equipment operations and maintenance grew more rapidly during the seventies than personnel costs. During this period, personnel costs rose 15 to 17 percent in absolute terms—primarily because of an increase in military manpower—and outlays for the nonpersonnel components of Soviet defense programs rose nearly 60 percent. [ ]

\* Civilian wage data were obtained from "Average Wages of Workers and Employees in the National Economy," *USSR National Economy*, 1978. (Russian) [ ]

† This personnel cost share was calculated in rubles and should not be compared to the portion of the US defense outlay devoted to personnel costs. The share of Soviet defense costs accounted for by personnel is small because of the nominal pay provided to conscripts and the high ruble prices of the large quantities of modern equipment procured by the Soviet military. Although the direct costs of uniformed personnel constitute a larger share of US defense activities—approximately 30 percent in 1979—comparisons of US and Soviet personnel costs are best made in a common currency. [ ]

[ ] of OSR was a principal drafter of the portions of this paper that cover Soviet military pay and personnel policy. [ ]

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## Appendix A

### Supplementary Pay

In addition to their base pay, Soviet servicemen receive supplementary allowances to compensate for difficult conditions of service or special qualifications. These consist of cash payment, special longevity credits, or gifts.

*Specialist pay* is awarded to qualified personnel with selected skills. Most officer specialists receive no monetary remuneration for their rating. Qualified pilots and navigators, however, receive specialist pay amounting to 5 to 15 percent of their combined rank and position pay. Conscripts and extended servicemen may advance through four specialist classes and receive specialist allowances that may be as low as 2.5 or as high as 10 rubles per month. Such ratings must be revalidated from time to time through subsequent examinations.

*Instructor pay* is an incentive given to academy teachers for having advanced degrees. This pay, which amounts to as much as 10 percent of position pay, probably applies only to officers. Amounts increase with each additional level of postgraduate certification.

*Security pay* is the extra money, perhaps 10 percent of position pay, given to personnel responsible for the storage and protection of classified documents.

*Cryptographic pay* is awarded to officer and warrant officer cryptographers. They receive extra remuneration, consisting of 10 to 25 percent of position pay, contingent on length of service.

*Foreign language pay* is earned for skills in duty-related languages. The pay, which is commonly given to those in military intelligence (GRU), amounts to 5 to 10 percent of position pay for those with knowledge of Western languages and 10 to 20 percent more position pay for knowledge of Oriental languages.

*Separation pay* is calculated when a serviceman completes his active military service. It is based on his pay in his last duty position. To reduce these obligatory payments, the armed forces usually reassign a conscript who has been an NCO to a private's position shortly before his discharge.

*Jump pay* is given to paratroopers according to the total number of jumps made, the type of aircraft involved, the amount of individual equipment carried, and whether the jump was made during the day or at night.

*Inclement weather pay* is authorized for pilots who fly in bad weather. This pay is awarded for time spent flying in adverse conditions on a kopeks-per-minute basis.

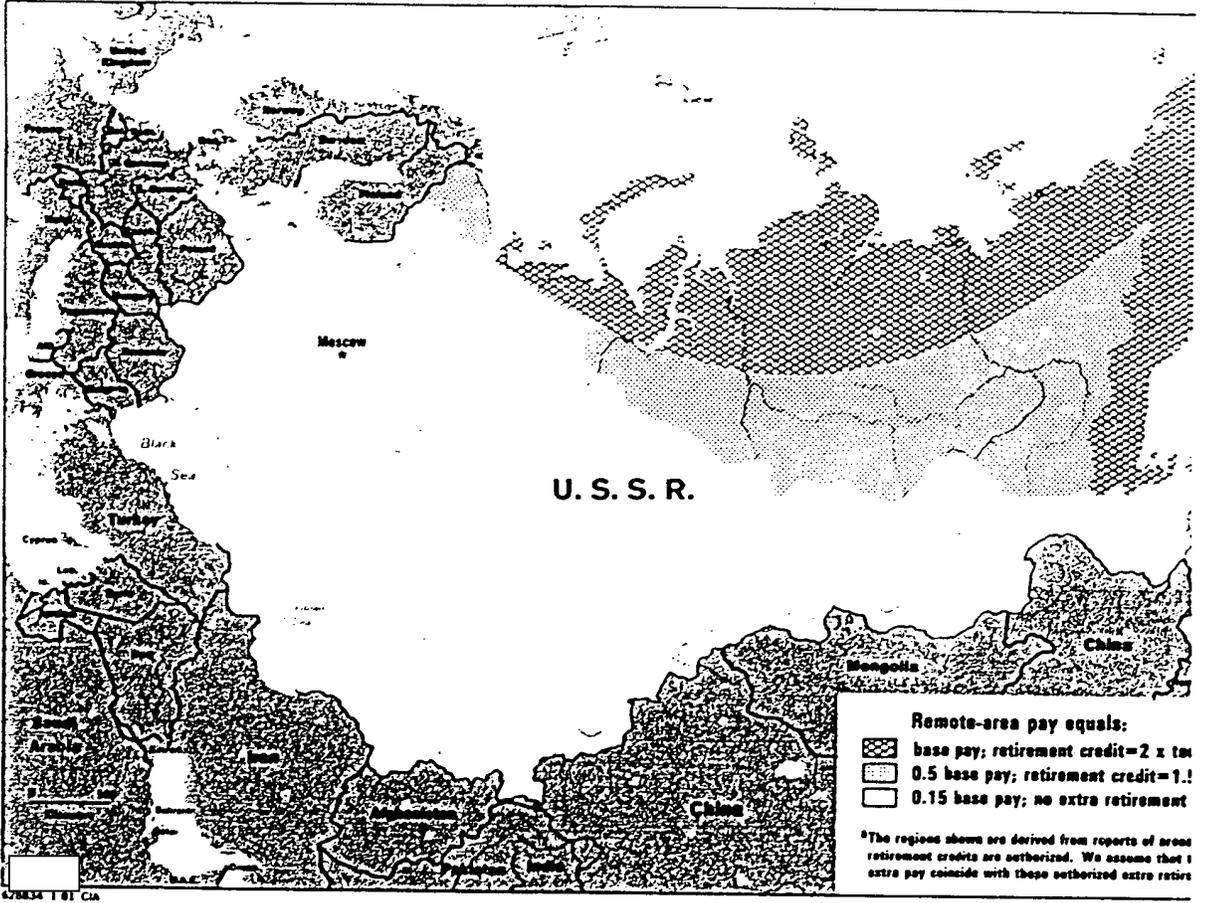
*Medical pay*, which is as much as 15 percent of base pay, is authorized for physicians, medical technicians, and nurses on staffs of hospitals treating infectious diseases, in pathological anatomical laboratories, and in forensic medicine offices.

*Remote-area compensation* is awarded to careerists serving in arctic climates or in areas where it is difficult to obtain food or potable water (see figure 5). It consists of cash supplements to basic pay and of special longevity credits for retirement pension calculations, and it accounts for 7 percent of the national military payroll.

*Sea pay* compensates for the hardships of service at sea. Personnel aboard commissioned ships receive basic sea pay, with possible additional payments depending on the type of ship to which they are assigned. The additional pay is highest aboard submarines, where it can amount to as much as the original base pay. In addition, officers with five or more years of service receive an annual tax-free bonus of one to three times

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Figure 5  
Remote-Area Benefits



their base pay, dependent on length of service. Finally, shipboard duty provides advantages in the computation of retirement credits and longevity pay—each year of duty on a surface ship is credited as one and a half years, on a diesel-powered submarine as two years, and on a nuclear submarine as three.

*Foreign duty pay* is issued for service outside the USSR. Most conscripts serving abroad receive all of their pay in local currency, but many military personnel are paid partly in local currency and partly in rubles. The supplement for foreign service probably is included with the amount paid in local currency—up to 80 percent of the serviceman's salary. Ruble pay is deposited in domestic Soviet banks and may not be withdrawn until the serviceman returns to the USSR.

*Special awards* are for meritorious service or inventions and are usually small sums of cash or gifts such as watches, which are purchased with special funds available in the units.

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## Appendix B

### Methods of Estimating Compensation

#### Soviet Military Pay

Our estimates of Soviet military pay reflect data on three key elements: numbers of Soviet military personnel by organizational unit, rank and position structures for each type of unit, and military pay practices. The current pay system is based on Order Number 75 of the Minister of Armed Forces (25 September 1947) and its subsequent modifications. Although the laws governing pay are published openly, the schedules of actual pay are contained in classified documents kept at each unit.

*Computer Analysis.* Our information is put into two computer-based models. One, a military manpower model, is used to estimate strength of the force, while the other, a pay model, replicates the Soviet military pay system.

The manpower model has seven major sections—national command and support, the five subordinate military services, and the militarized security forces. Within each section we identify the appropriate types of subordinate units. For each of over 1,200 unit types, we estimate the order of battle and manpower. Our aggregate manpower estimates are the sum of these individual elements.

The pay model has three parts: a central logic that incorporates the functioning of the pay system, a set of tables of organization corresponding to units in the manpower model, and a set of data files containing pay rates for various types of pay. The model produces estimates of pay for position, rank, longevity, remote-area service, specialist ratings, sea service, and separation.

*Confidence.* Our confidence in our estimates of manpower and organizational structures is high for frontline combat units, less high for support and higher level command units, and least high for national-level command elements. For some elements at the national level, for example, we know little more than the name of the commanding officer. In such cases we have

developed subordinate rank structures from conceptual models derived from better known low-echelon staffs.

We are highly confident of our estimates of pay rates for lower level personnel (conscripts and officers from junior lieutenant through major), of the factors used to calculate longevity pay, and of position pay rates in combat units. We are less confident in our estimates of position pay rates in higher level command and support organizations, of many types of specialty pay, and of pay rates for extended-service personnel.

#### Soviet Military Food Costs

Food costs vary by rank, service, and type of assignment. Warrant officers and reenlisted servicemen may take advantage of prepared meals, receive food in kind, or be given money to cover the cost of food. Most officers receive a subsistence allowance with which they may purchase food at retail rates or pay for meals at officers' dining facilities. Officers in rear service units or in small isolated units in remote areas of the USSR can buy food at 50 percent of cost. Officers are also eligible for rations of "luxury foods" like chocolate and butter.

Special food allotments are also issued to those involved in special types of work or periods of intensified exertion. Flight personnel (pilots and maintenance crews), submarine crewmen, and divers are among those eligible for additional food.

Table 4 summarizes our estimates of the per capita ruble values of the food or subsistence allowances provided to servicemen in 1980. These estimates reflect human source reporting on the nature of the military ration in the USSR and analysis of established Soviet food prices.

Estimates of special and supplementary rations given to major categories of military personnel have been derived from human-source data. Officers receive bet-

Table 4

1970 Rubles

## Per Capita Subsistence Costs

Services	Rank Categories			
	Cadets	Conscripts	Extended-Duty Personnel	Officers
Ground Forces	540	370	480	590
KGB Border Guards	540	370	480	590
Command and Support	540	370	480	590
Strategic Rocket Forces	540	370	480	590
Naval Shore Personnel	540	370	480	590
Air Force and Air Defense Force (nonflight status)	540	370	480	590
Air Force and Air Defense Force (with flight status)	540	540	640	745
Naval Personnel Afloat	540	400	520	640
Naval Personnel On Board Submarines	540	500	625	745

ter quality food than conscripts. There is also more and better food for some parts of the Air Force and Navy. For example, pilots and personnel with flight status receive a supplementary ration, and submariners receive more expensive food than others at sea. People assigned to difficult jobs or hardship posts may receive more or better food.

We have linked the costs of food for individual categories of men to our position file. The total cost estimate for food was then indexed to reflect quality and quantity changes that have occurred in the military diet.

**Soviet Military Clothing Costs**

Our clothing estimate is based on a study jointly conducted by the Office of Strategic Research

The estimate reflects detailed analysis of Soviet military clothing costs and issuing practices.

The cost of uniforms varies by rank, service, location, and, in some cases, job. Uniforms for officers are more expensive than the clothing for enlisted servicemen.

\* See ER IR 73-1, *The Military Food Ration in the USSR*, January 1973.

Senior officers have a more expensive wardrobe than junior ones. Naval uniforms for career personnel generally cost more than the uniforms for other services. Ground, strategic rocket, and air defense force units located in arctic regions receive a more expensive cold-weather clothing issue than other units.

The clothing issued is a mixture of new items and used items that can still be used as service uniforms. A conscript is initially given two work uniforms: a new one for guard duty and a used one for everyday use. After eight months, a new uniform is issued, the guard duty uniform becomes everyday wear, and the old uniform is discarded or forwarded for harvest workers.

Personal items such as footwraps (used instead of socks) and underwear are issued more frequently—footwraps at a rate of four pairs per year and underwear at a rate of three ordinary and one thermal set annually. A conscript turns in a set of underwear and footwraps for washing once a week.

The conscript keeps his parade uniform upon discharge. He is to keep this outfit until he reaches 50, when his eligibility for reserve callup ends.

Table 5 1970 Rubles Per Year

Per Capita Clothing Costs

	Conscripts	Extended Duty	Officers
Ground, Strategic Air Defense, and Strategic Rocket Forces	250	245	395
Navy	170	260	405
Air Forces	125	225	355

The clothing estimate was calculated by multiplying the number of conscripts, extended-duty servicemen, and officers in the various services by the average annual costs of all clothing and uniform items issued to each man in those personnel categories.

Table 5 summarizes our current estimates of per capita clothing costs in the Soviet military.

Housing Costs

In 1928 the Soviet Government established the lowest rent rates in the world, and they have not been raised since. Yearly civilian rent averages one and a half rubles per square meter of usable living space and amounts to no more than 2 or 3 percent of a family's income. Officers, warrant officers, and extended servicemen who use off-base housing pay even less than civilians. An officer pays around one ruble annually per square meter of living space, and warrant officers and reenlisted personnel are charged 0.3 rubles per square meter.

Career military personnel have additional housing advantages. If a serviceman is sent to an area where he must pay for temporary housing, his rent at home is reduced by 50 percent. If he is stationed abroad, his housing in the USSR is kept available for his return. The family of a deceased serviceman may continue to live in military housing, but the rent is raised to civilian rates after six months.

For the purpose of this paper, we calculated housing costs by apportioning our estimates of Soviet military construction, maintenance, and utilities costs between personnel and nonpersonnel facilities and adding to the resulting figure an estimate of the cost of off-base housing.

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### Appendix C

#### Position Pay Rates for Selected Officers

Position	Rubles per Month	Position	Rubles per Month
<b>Ground Forces</b>			
Platoon Commander	110	Group Commander (Department 2), 1st-rank warship	120
Deputy Company Commander	115	Department Commander (Department 1, 2, 3, 4), 2nd-rank warship	120
Company Commander	125	Department Commander (Department 1, 3, 4), medium submarine	120
Battalion Staff Officer	115	Department Commander (Department 1, 3, 4), small submarine	120
Deputy Battalion Commander	130	Member, Hydrographic Department	140
Battalion Commander	140	Group Commander (Department 5), 1st-rank warship	140
Regimental Staff Officer	120-130	Department Commander (Department 5), 2nd-rank warship	140
Deputy Regimental Commander	150	Department Commander (Department 5), medium submarine	140
Regimental Commander	180	Department Commander (Department 5), small submarine	140
Division Staff Officer	115-180	Department Commander (Department 1, 3, 4), 1st-rank warship	140
Deputy Division Commander	200	Deputy Commander, small submarine	140
Division Commander	240	Commander, Hydrographic Party	140
<b>Air Forces</b>			
<b>Fighter Pilot</b>			
Subsonic	140	Department Commander (Department 5), large submarine	150
Supersonic	160	Department Commander (Department 2), 1st-rank warship	150
<b>Fighter Pilot-Instructor</b>			
Subsonic	150	Commander, 3rd-rank warship	150
Supersonic	170	Section Chief, Hydrographic Detachment	160
<b>Fighter Flight Commander</b>			
Subsonic	170	Department Commander (Department 5), 1st-rank warship	160
Supersonic	190	Chief, Mobile Map Publishing Department	160
<b>Fighter Squadron Deputy Commander</b>			
Subsonic	210	Deputy Commander, large submarine	160
Supersonic	230	Commander, small submarine	160
Air Staff Officer (various echelons)	65-220	Commander, Division of 3rd-rank warships	160
Fighter Regiment Deputy Commander	230	Commander, 2nd-rank warship	170
Fighter Regiment Commander	240	Commander, medium submarine	170
Deputy Air Division Commander	260	Commander, Division of 3rd-rank warships	170
Air Division Commander	280	Section Chief, Hydrographic Expedition	180
<b>Naval Forces</b>			
Cartographer, Mobile Map Publishing Detachment	100	Commander, large submarine	180
Member, Hydrographic Party	100	Commander, 1st-rank warship	190
Senior Cartographer, Mobile Map Publishing Detachment	110	Commander, Brigade of 3rd- and 4th-rank warships	190
Senior Member, Hydrographic Party	110	Commander, Brigade of 1st- and 2nd-rank warships	210
Group Commander, 2nd-rank warship	110	Squadron Commander	310
Group Commander (Ship departments 1, 3, 4), 1st-rank warship	110		
Commander, small boat	110		