Directorate of
Intelligence

Confidential

The Soviet Labor Market in the 1980s

25X1

An Intelligence Assessment

Confidential

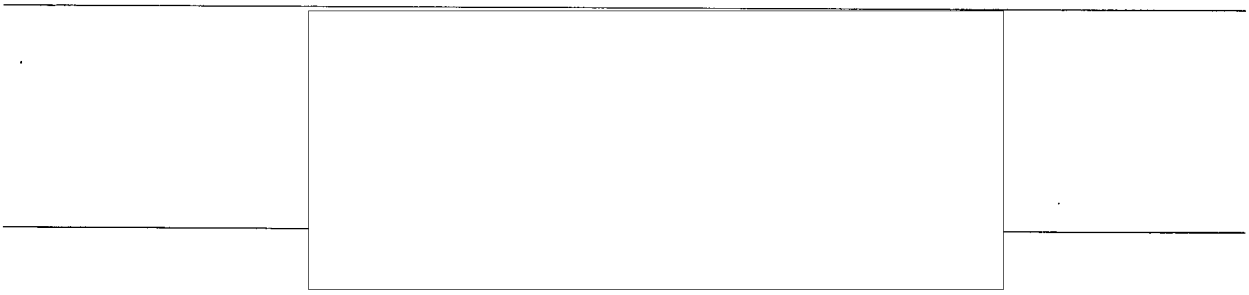
SOV 82-10017
GI 82-10034
February 1982

Copy 272

National Security Information

Unauthorized Disclosure
Subject to Criminal Sanctions

25X1



Directorate of
Intelligence

Confidential

The Soviet Labor Market in the 1980s

25X1

An Intelligence Assessment

Information available as of 1 December 1981 has been used in the preparation of this report.

25X1

This assessment was prepared by
Soviet Economy Division, Office of Soviet Analysis;
Policy Analysis Division,
SOVA; Office of Global Issues.
Comments and queries are welcome and may be
addressed to the Chief, Soviet Economy Division,
SOVA,

25X1

25X1

25X1

25X1

Confidential
SOV 82-10017
GI 82-10034
February 1982

The Soviet Labor Market in the 1980s

25X1

Key Judgments

The Soviet labor market will undergo a radical change in the 1980s. Constrained since the early 1960s by sluggish technological progress, the USSR has relied more heavily than Western industrialized nations on increases in the size of the labor force to spur economic development. During the next decade this will no longer be possible.

Growth of both the working-age population and the labor force will decelerate sharply during 1981-90. The slowdown will be less pronounced for the labor force, however, because of changes in the age-sex structure of the general population and a rising participation rate for pensioners. There will be a greater concentration of workers in their thirties and forties (the age group with the highest labor-force participation rates) and an increasing proportion of males. The retirement-age population will increase rapidly, and the recently revised pension laws will encourage the older people to continue working.

Despite these changes, labor-force growth in the 1980s will still be less than half of what it was in the 1970s. The working-age population, which grew by 23 million between 1971 and 1980, is expected to grow by less than 5 million between 1981 and 1990. The labor force, which grew by nearly 20 million during 1971-80, is expected to grow by roughly 9.5 million in 1981-90.

To compensate for this slowdown, Moscow is becoming more directly involved in allocating scarce labor resources and tightening worker discipline in an effort to assure that priority sectors have adequate manpower and to increase labor productivity. During the past few years, it has:

- Centralized decisionmaking regarding labor issues under the State Committee for Labor and Social Questions (Goskomtrud).
- Become more active in steering workers into particular industries.
- Called for tougher action against people who come to work drunk, are illegally absent, or avoid employment.

These actions are unlikely to increase productivity much, so the Soviets are also considering a number of long-term policies to ease their labor difficulties. The most promising is the effort to mechanize and automate labor-intensive industrial processes. This will require massive investment in modern machinery. Another proposal involves the shift of investment

Confidential
SOV 82-10017
GI 82-10034
February 1982

spending into labor surplus areas like Central Asia to promote development where the labor is in abundant supply. These schemes can only be implemented slowly, however, because of the slowdown in overall investment growth and the competition for new investment rubles. A third policy—to increase the birth rate—will not speed up labor-force growth until after the year 2000.

25X1

Contents

Tables

Figures

The Soviet Labor Market in the 1980s

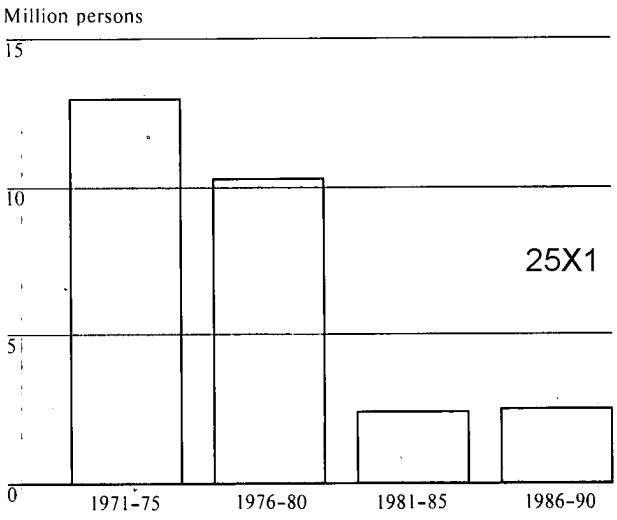
25X1

The Twofold Problem

The Soviet economy, constrained for many years—but especially recently—by sluggish productivity growth, now must cope with a second problem—a sharp slowdown in annual increments to the working-age population. The prospect of a labor shortage is especially painful for Soviet planners, because up to now the share of labor's contribution to growth generally has been larger than in other developed economies, while the contribution of productivity has been smaller. Moscow counts on turning this situation around in the 1980s, relying more on productivity and less on numbers to spur economic growth.

This assessment describes the nature and magnitude of the impending labor shortage and assesses Moscow's efforts to limit its impact. It then evaluates the consequences for economic growth in the 1980s. Appendixes provide more detail on the methodology used to derive these estimates; regional trends in population growth; migration trends within the USSR; and the major decrees the Soviet Government has issued since 1975 on the allocation, training, and use of manpower. The study does not address the question of possible changes in the demand for labor during the 1980s.

Figure 1
Increase in Size of the Soviet Working-Age Population[a]



[a] Males 16-59 and females 16-54.

25X1

586039 1-82

25X1

The Coming Labor Shortage

Decline in Working-Age Population Growth

The Soviet labor market will undergo a fundamental change in the 1980s.[1] After increasing by an average of 2.3 million persons per year during 1971-80, the working-age population [2] will increase much more slowly in the first half of this decade, adding less than 300,000 persons in 1986. The annual net increment will rise slightly thereafter, but at decade's end still will be extremely small. Thus, during the 11th (1981-85) and 12th (1986-90) Five-Year Plan periods (FYPs), the national manpower pool will increase only one-fourth as much as it did during the 10th (1976-80) FYP. (Figure 1 shows this trend.)

25X1

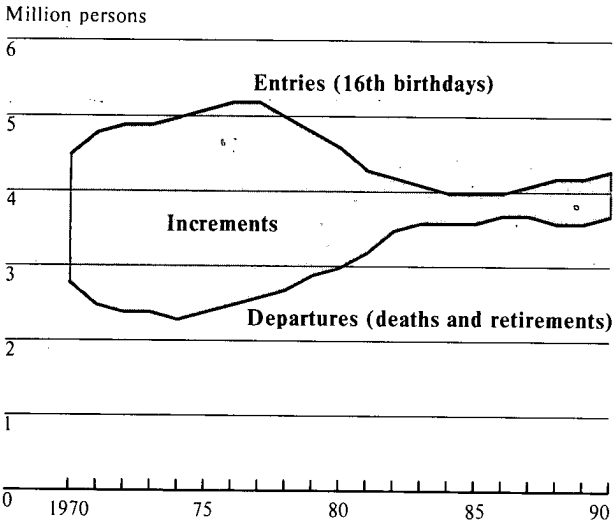
Two developments will contribute almost equally to this precipitous drop: fewer children are reaching working age and more adults are reaching retirement age (figure 2). The young group reflects the sharp fall in birth rates since the early 1960s, and the older group reflects the high birth rates during the 1920s and 1930s.[3] Another factor reducing the size of the working-age population is the rising mortality rate among males age 25 to 44 due to an increasing incidence of alcoholism, industrial accidents, and cardiovascular disease.[4]

25X1

[1] This and all subsequent footnotes to the text appear at the end of this paper.

25X1

Figure 2
Increments to the Soviet Working-Age Population[a]



[a] Males 16-59 and females 16-54.

586040 1-82

Changes in the Age Composition of the Labor Force

To a limited degree, changes in the age structure of the labor force will offset some of the sharp drop in the growth of the working-age population. People in their thirties and forties are more likely to be in the work force than people in their twenties and fifties; and during 1981-90 the share of the population age 30 to 49 will increase by 4 percentage points to 47 percent. Because this age cohort averages a higher rate of participation in the labor force than other able-bodied groups, this demographic change will spur labor-force growth.

At the same time, Moscow will be able to tap the growing pension-age population for extra workers. During the 1980s, 9.5 million people will reach pension age—more than twice the level of the 1970s. Consequently, if past participation rates hold, the share of the pension-age population in the labor force will increase from about 10 percent to 12 percent. The net result of these two factors—a higher concentration of workers in their thirties and forties and a larger share of pensioners—will be a less precipitous decline in growth of the labor force than in the growth of working-age population during the 1980s.

Efforts To Increase Labor-Force Participation Rates

Just how fast the labor force grows in the 1980s, however, will depend mainly on Moscow's success in raising labor-force participation rates. They are already higher in the USSR than in any other industrialized country in the world. (Currently, over 90 percent of the able-bodied Soviet citizens work or go to school.) Nevertheless, the leaders over the past several years have taken various steps to increase participation rates. They have:

- Revised pension laws to make it more profitable for pensioners to continue working beyond retirement age.
- Expanded child-care services to promote work among women with small children.
- Emphasized part-time schooling to increase employment among the school-age population.

These efforts are expected to have only a limited impact, however.

Pensioners. According to the pension laws as revised on 1 January 1980, payments will be increased by 10 rubles per month for each year of work beyond retirement age.[5] (This increase is limited to four years, however—a maximum increase of 40 rubles per month.) Depending on the type of job, pensioners also will be allowed to retain all or part of their pension income as well as receiving wages. The expected changes in participation rates could add more than 1.6 million persons to the work force during the 1980s. Their contribution to the economy will be diluted, however, because pensioners generally are less skilled than the rest of the labor force, and many work only part-time.

Women. Since 1978, the Council of Ministers has issued a number of decrees to try to raise female employment. These call for greater use of part-time employment, more on-the-job training for women with young children, and the provision of more household goods and services to make it easier for such women to work. Nevertheless, we expect female participation rates to decline slightly during the 1980s,

for two reasons. First, nearly 90 percent of Soviet women are already working or studying full-time—a rate that can hardly increase much. And second, most of the additional female labor supply will come from Central Asia and Kazakhstan—in fact, over two-fifths of the entire increment to the total Soviet able-bodied population will be females from this region in the high fertility ages of 20 to 39. These women historically have had participation rates lower than the national average, and Moscow probably cannot make much change in that pattern during the 1980s.

Teenagers. Some government officials have suggested that an increase in employment among the school-age population would alleviate the labor shortage. However, Soviet educational policies in the past decade have taken the opposite direction—extending the length of compulsory education and providing for expanded vocational-technical training.[6] We expect this trend to continue. The leadership apparently believes that the additional training will raise the productivity of workers enough to justify their delay in entering the labor market. 25X1

Other Sources of Labor. Besides trying to increase participation rates, Moscow could draw from foreign labor and from the military. Neither source would be very helpful. 25X1

Currently the USSR has about 40,000 foreign workers, primarily from Eastern Europe. For the most part, they are employed on joint projects, such as the Orenburg gas pipeline, or on projects exclusively in the interest of their own country (Bulgarians working in forestry preserves in the USSR for Bulgaria). Such cooperation is likely to continue, but not to increase. That is, during the current 11th FYP, foreign workers will be used in a limited way to relieve bottlenecks and help balance trade deficits rather than alleviate shortages. With the possible exception of Romania, none of the East European countries is expected to have a labor surplus over the next decade that could be used extensively in the USSR.

One other group that Moscow could tap is the military, although it is unlikely to do so. Reducing the number of conscripts would not increase the total labor supply (which includes the military), but it would increase civilian employment. Such a move would have only a one-time impact, however, and would involve a drastic shift in Soviet military strategy, operating practices, and procurement programs.[7] Moreover, many major civilian construction projects such as the Baikal-Amur railroad are already using military conscripts, and cutting the armed forces might jeopardize use of military troops for such purposes 25X1

25X1

Labor Force Growth in the 1980s

In summary, we expect that changes in participation rates will have only a negligible impact on labor-force growth during the 1980s. Greater employment among persons of retirement age seems likely, but will probably be offset by declining participation rates for teenagers and females age 20 to 39. Significant use of foreign labor is also unlikely, given the similarly tight labor market in Eastern Europe. 25X1

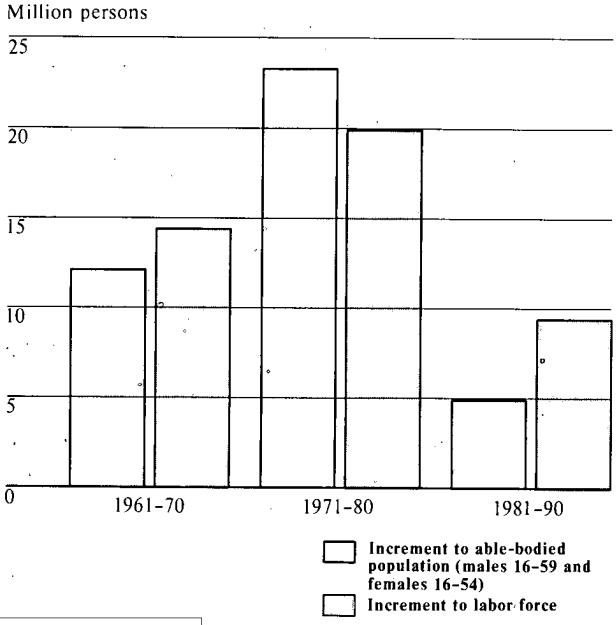
Because of the greater concentration of workers in the age categories with the highest participation rates and the rapid increase in the pension-age population (plus a somewhat higher participation rate for this group), we estimate that roughly 4.5 million more persons will be added to the labor force than to the working-age population in the 1980s (figure 3). Despite this difference, however, the average annual rate of growth for the labor force during 1981-90 will be only 0.6 percent—less than half of what it was in the previous decade.[8] 25X1

Regional Imbalances

Moscow's labor problems, however, go beyond mere numbers. Over the next decade, the tightness in the national labor market will be exacerbated by differences in manpower availability from one region to another and between urban and rural areas. Because of wide regional variations in the birth rate, Soviet population growth during the last 20 years has been concentrated in the high-fertility republics of Central Asia and Kazakhstan.[9] (For a more detailed discussion of population growth trends by region, see appendix B.) Of the roughly 9.5 million workers who will be added to the labor force during the next decade, about 90 percent will come from these five republics. In

25X1

Figure 3
Increments to the Soviet Able-Bodied Population and Labor Force



586041 1-82

contrast, the labor force will grow only slightly in the heavily industrialized Russian republic (RSFSR) and will remain essentially unchanged in the western republics.

Regional differences in labor-force growth will have a negative impact on the economy. Workers in the southern-tier republics (which include the republics with high fertility) generally have less education, fewer skills, and less capital to work with than those in other parts of the country. More importantly, the greatest demand for workers in the 1980s will be in the highly industrialized western USSR, where the native labor force is expected to decline, and in the resource-rich, but climatically severe, area of West Siberia, which never has enough labor. Several Western scholars have postulated that large-scale migration from Central Asia to labor-deficit areas in the European USSR will offset the differing population growth rates, but there are no signs of such migration.[10] Even if there were, it is difficult to see how Central Asians could meet the need for technical skills in the western USSR over the next decade—they are not meeting the need in Central Asia

25X1

Urban-Rural Imbalances

Differences in urban-rural growth patterns will further complicate the regime's efforts to exploit available manpower reserves in the 1980s. During the past decade, the pace of urbanization continued unabated (the urban population increased from 56 percent of the total to 62 percent).[11] In the European USSR, most of the urbanization was due to an influx of young rural migrants into the larger cities of the region (table 1). As a result rural areas of the RSFSR (like the central industrial zone and West Siberia) have a labor force that is older, less skilled, and increasingly female—a serious problem for planners seeking to increase agricultural productivity.

25X1

In contrast rural Central Asians generally did not migrate to local urban centers in substantial numbers. Except in Uzbekistan, most of the urban growth in these republics during the past decade is attributable to the high birth rate among urban dwellers—increases which have added to the total urban population but not yet to the working-age population. The tendency of rural Central Asians to stay on the farm has thus created a growing reservoir of underused manpower in the countryside and a manpower shortage in the towns—problems which probably will worsen over the next decade.

25X1

25X1

Slowdown in Labor Productivity Growth

The effect of the employment slowdown on the economy's performance could be substantial. More than any other industrial power, the USSR has relied upon increases in the size of the labor force to spur development. Now, however, most economic growth must come from increased labor productivity. The 11th FYP calls for continued growth (see table 2)—and according to its guidelines, 90 percent of the growth in industrial output and the entire growth in agricultural output are to come from increased productivity.

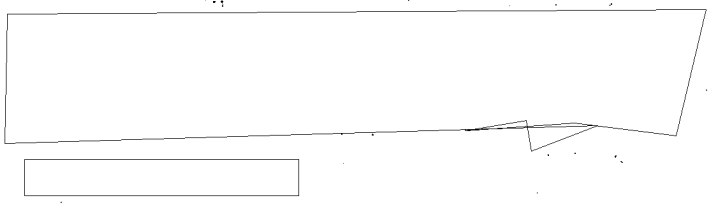
25X1

Table 1

Urbanization in the USSR (by Republic, 1970 and 1979)

	Percent Urban		Urban Population (in thousands)		Percent Increase in Urban Population	Percent of Urban Growth Resulting From	
	1970	1979	1970	1979	1970-79	Natural Increase [a]	Rural-Urban Migration [b]
USSR total	**56**	**62**	**135,994**	**163,586**	**20.3**	NA	NA
RSFSR	62	69	80,981	95,374	17.8	NA	NA
Ukraine	54	61	25,689	30,512	18.8	42	58
Belorussia	43	55	3,908	5,263	34.7	41	59
Lithuania	50	61	1,572	2,062	31.2	35	65
Latvia	62	68	1,477	1,726	16.9	25	75
Estonia	65	70	881	1,022	16.0	40	60
Armenia	60	66	1,482	1,993	34.5	52	48
Georgia	48	52	2,240	2,601	16.1	65	35
Azerbaijan	50	53	2,565	3,200	24.8	67	33
Moldavia	32	39	1,130	1,551	37.3	36	64
Kazakhstan	50	54	6,539	7,920	21.1	NA	NA
Kirghiziya	37	39	1,097	1,366	24.5	73	27
Tadjikistan	37	35	1,077	1,325	23.0	NA	NA
Turkmeniya	48	48	1,034	1,323	27.9	85	15
Uzbekistan	37	41	4,322	6,348	46.9	45	55

[a] Births minus deaths.
[b] Figures include statistical increases due to administrative reclassification of rural centers into urban centers.



25X1

25X1

Table 2

Growth of Soviet Labor Productivity, by Plan Period (Average Annual Percentage Change)

	1971-75 (Actual)	1976-80 (Actual)	1981-85 (Plan Figures)
Total economy	**2.1**	**1.2**	**3.4**
Industry	4.4	1.8	4.4
Construction	2.4	1.1	3.0
Transportation	3.5	1.0	2.1

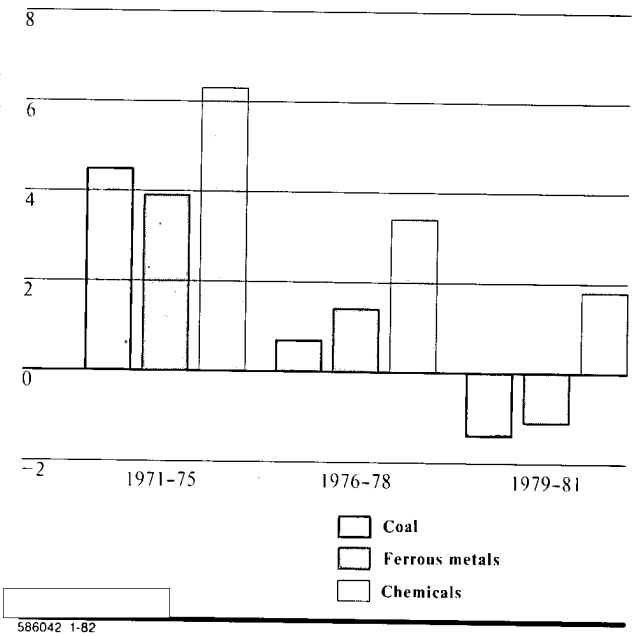
Achieving those goals will be a monumental task, however. In every economic sector, productivity growth has declined since 1975, and in some branches of industry, productivity actually fell during 1979 and 1980 (figure 4).

There are a number of reasons for this sharp downturn. Some, such as the rising cost of extracting raw materials, are related to problems in specific sectors. Others, such as declining worker morale and a slowdown in the growth of labor-saving investment, cut across all economic sectors. Whether general or specific, their effects are felt throughout the economy.[12]

Industrial Plant Problems

The general slowness in expanding the quality and quantity of industrial capacity has had a depressing effect on labor productivity. Construction delays have held back expansion and modernization of plants and equipment for producing a wide array of industrial products. Equipment shortages and transportation bottlenecks—occurring with increasing frequency and intensity—have increased the loss of time. These delays, together with a lack of replacement investment and incentives to encourage modernization, have prolonged the use of obsolete equipment—which in turn requires frequent, costly, and labor-intensive repairs. The rate of growth in employment of repair workers in industry has been nearly three times the rate of growth in overall industrial employment.

Figure 4
Growth of Soviet Labor Productivity in Selected Industrial Sectors



25X1

In addition to problems with the industrial infrastructure, a number of industry-specific problems have retarded the growth of labor productivity. In many extractive industries, particularly coal and iron ore, the rising labor costs of exploiting natural resources have virtually wiped out any productivity growth. In the coal industry, the increasing depth of underground mines and reduced thickness of coal seams have hampered output and reduced opportunities for mechanization, thus raising the labor intensity of operations.

25X1

Deficiencies in coal mining and the rapidly declining quality of iron ore deposits, in turn, are taking their toll on the ferrous metals industry. Shortages of coking coal caused by lagging production at the Donetsk and Kuznetsk basins are interrupting steel production more and more often, most notably in the Ukraine—the center of over one-third of the country's crude steel production.

25X1

25X1

In the chemical industry, the share of Western plants and equipment is increasing, and incompatibility between Soviet and Western components has resulted in frequent shutdowns for repair. A single equipment breakdown now exacts a greater penalty in terms of lost productivity than it did in the past because of Moscow's proclivity for installing large-capacity units.

25X1

Worker Morale Problems

Another major factor underlying poor labor productivity may have been a serious decline in worker morale. Until recently, the leadership has relied on improvements in the standard of living to improve motivation. Now, however, there is increasing evidence that the Soviet workers' optimism about their standard of living in the 1960s and early 1970s has been replaced by a deep pessimism.

Among the reasons for this pessimism, the most visible is the current shortage of quality food. Even before the recent harvest failures, however, worker discontent was increasing. Expectations simply have risen far faster than the government's ability to provide a consistent improvement in the standard of living. In addition, Soviet citizens appear to be much better informed than before about how their standard of living compares with those in other countries, especially in Eastern Europe—and much more upset.[13]

25X1

One reflection of Soviet workers' growing discontent is the increasing rate of alcoholism, which has caused more serious production slowdowns, shoddier workmanship, and growing absenteeism.[14] It is difficult to quantify the effect of this drop in morale upon production levels, but a saying popular in the USSR and Eastern Europe captures the probable effect: "Since the government pretends we live better, we pretend to work harder."

25X1

Efforts To Increase Productivity

Soviet leaders have planned a two-pronged attack for dealing with their labor problems. Their efforts to increase labor-force participation rates were discussed in the section "Efforts To Increase Labor-Force Participation Rates." They realize that additional sources of labor are limited, however, and are focusing most of their efforts on the second prong—ways to increase productivity.

25X1

So far Moscow does not seem prepared to consider a fundamental reordering of priorities or major reforms to boost material incentives for workers.[15] Indeed, its actions point in just the opposite direction. During the 11th FYP, Moscow will become more involved in the direct allocation of labor resources and will tighten labor discipline in order to ensure that priority sectors have adequate manpower and to increase labor productivity. At the same time, Soviet leaders are trying to bring the supply and demand for consumer goods and services into closer balance by reducing the growth of consumer purchasing power.

25X1 25X1

Allocating Labor Resources

In an effort to increase efficiency and to channel workers into selected industries and regions, the Soviet leadership apparently has decided to become more directly involved in job placement. A part of the decree on planning and management in July 1979 [16] called for ceilings on the number of workers at industrial enterprises during the 11th FYP—a throwback to the pre-Brezhnev era. The Soviets have also launched a campaign to increase use of the labor placement bureaus established in 1967. These bureaus are intended to provide information on job vacancies and applicants, reducing the average time spent looking for a job. They also provide a means of channeling workers into key sectors.[17]

25X1

For a quarter of a century the labor market has been the resource market least controlled by the government. Since the mid-1950s, workers generally have been free to change jobs in response to higher wages or better working conditions. The state has not controlled the allocation of labor directly, as it has the allocation of investment resources. Indirectly, however—by setting differentiated wage scales among industries, for example—it has channeled workers into high-priority projects, such as those in the Far East and the Virgin Lands. The current emphasis on labor placement bureaus appears to supplement these indirect methods.

25X1

Moscow is also playing a much greater role in the job placement of graduates from both vocational-technical schools and higher and specialized secondary schools. A Council of Minister's resolution issued in April 1980 on the role of vocational-technical schools includes compulsory two-year work assignments at enterprises chosen in advance. This is a departure from the earlier, more informal job placement system.[18] This resolution comes at a time when the leadership is attempting to enlarge the vocational-technical system as the major vehicle for training skilled workers.[19]

An earlier resolution (1979) on the role of higher and specialized secondary schools increased the state's control over the distribution of highly skilled workers. Emphasizing the distortions in the supply of labor for specific industrial branches, the decree offered unspecified material incentives to attract students into particular specialties. It called for the establishment of specialized schools in Siberia, the Far East, and the central industrialized region of the RSFSR—areas where the Soviets have had difficulty recruiting and holding workers. The students, many of whom apparently will be recruited from the heavily populated areas of Central Asia, will be required to accept jobs in the regions where the schools are located.

Another program to steer workers into specific areas of the country uses tour-of-duty brigades, established in the early 1970s. This program entails the construction of work camps at or near remote project sites to which work crews are flown from base cities. For example, tour-of-duty brigades perform all exploratory drilling in West Siberia. This eases critical manpower shortages and avoids the cost of building permanent facilities in remote areas. Moreover, these brigades build about 40 percent of the facilities for Siberian oil and gas industries.

The state's growing control over the labor market and its intention to become more involved in labor allocation are also reflected in a series of administrative changes dating from the mid-1970s. In 1976 a Council of Ministers' decree placed all agencies dealing with labor matters under the State Committee for Labor and Social Problems (*Goskomtrud*), a union-republic organ with ministerial status. Two years later Goskomtrud was given wide-ranging powers over manpower training, wages and incentives, working conditions, and social security. 25X1

Two organizations under Goskomtrud's umbrella are now being expanded: the All-Union Resettlement Committee and the Administration for Organized Recruitment (*Orgnabor*). These agencies played a major role in such mass migrations as the settling of new lands in Kazakhstan and Siberia in the 1950s. More recently, they have been concerned with directing urban labor to priority projects, such as large construction efforts or newly established plants that are having difficulty obtaining skilled labor. 25X1 25X1

The current number of workers placed in industrial jobs through Orgnabor is unknown (in 1976 it handled only about 3 percent of job placements). A barrage of recent articles in the Soviet press on the need to improve labor resource management through organized redistribution of employed workers suggests, however, that Orgnabor is expanding its activities.[20]

25X1

Cracking Down on Lax Workers

Along with taking a more direct hand in allocating scarce labor resources, the leadership seems intent on reducing job turnover and tightening labor discipline. A resolution issued jointly in January 1980 by the Council of Ministers, the Central Committee of the CPSU, and the All-Union Trade Union Council harshly criticizes those who do not have jobs, those who constantly change jobs, and those who do not work at the jobs they have.[21] The resolution increases from two weeks to one month the period of notice for voluntary resignations and advocates tougher disciplinary action against people who come to work drunk, are illegally absent, or avoid employment. It blames party officials, factory managers, foremen, and others in responsible positions for not enforcing the rules and calls for increased vigilance in overseeing job performance. 25X1 25X1

Although the major thrust of the resolution is on the increased use of discipline, it also provides some incentives. These are additional leave time, housing

construction loans that need not be repayed, and pension increases from 10 to 20 percent for retirees with 25 years of continuous service

Meanwhile, Soviet authorities have been expanding the use of the labor brigade—a longstanding form of grass-roots autonomy whereby a number of workers contract collectively for a specific project such as building a school. Reportedly this arrangement was revised to raise productivity through a new set of financial arrangements, but it also enforces labor discipline on lax workers through group pressure.[22] According to Soviet statistics, by August 1980 the brigade form of organization encompassed 48 percent of workers in industry as a whole, including 60 percent in ferrous metallurgy and over half in shipbuilding, forestry, light industry, and machine building. The decree on planning and management issued in July 1979 instructs enterprises to set up brigades in the hope that they will become the principal form of labor organization in the 11th FYP.

Against the background of the decree on labor turnover and the emphasis on labor brigades, leaders at all levels have begun to speak out more forcefully on the need to increase labor discipline. Speaking on preparations for the new five-year plan at the Central Committee Plenum in 1979, Brezhnev warned:

> *Discipline and order are always necessary. Now, when the scale of economic management has expanded tremendously, and when the network of economic relations is becoming even more complex, dense, and widespread, [these qualities] become particularly necessary . . . for the strict observance of the laws is one of the unconditional prerequisites for the functioning of the entire economic mechanism.* 25X1

During 1980 and 1981 at least a half dozen prominently featured articles in the Soviet press also have picked up on the theme of tightening labor controls.[23] Over the same period—and undoubtedly with the events of Poland in mind—the regime has pursued a campaign emphasizing the state's primacy in labor matters. Mikhail Suslov, secretary of the CPSU and chief party theoretician before his death in January 1982, took a hard line in his keynote address to an all-union ideology conference held in April 1981, stressing the "strictest control" over all aspects of labor and consumption. Since then a press campaign has 25X1 stressed the need for "heightened vigilance" to counter the effect of reformist ideas in Poland and in the USSR.[24] 25X1

Refurbishing the Trade Unions

Also with an eye toward Poland, Soviet leaders have sought to refurbish the image of trade unions as the guarantor of workers' rights.[25] Early in 1981, at the 26th Party Congress, Brezhnev chided the unions for insufficiently exercising their "wide-ranging" rights on behalf of the workers, and Trade Union Chief Shibayev noted "all of this obliges the unions to strengthen their supervision over the decisions of all questions concerning labor, the life, and lifestyle of people. . . ." Reports from republic trade union council meetings and articles in the press also have called for increasing worker participation in management.

25X1 25X1

While making a show of response to the needs of the workers, Moscow has made it clear that to increase production is still the trade unions' number-one obligation. Since 1975 party and trade union resolutions have emphasized the unions' production-oriented functions, and the unions have become more subordinate to the party than ever before.

25X1

Material Incentives

Moscow also wants to curb the growth of consumer purchasing power so as to increase the effectiveness of so-called financial levers. In theory, the wage and incentive system should reward higher labor productivity. Since the mid-1960s Moscow has initiated numerous reforms intended to boost the salaries of workers whose performance exceeded norms or to give greater bonuses to enterprise managers who use fewer workers (as in the widely touted Shchekino experiment).[26]

25X1

These programs have had little effect. Workers generally have been loath to work harder, because their money income has already far outstripped the availability of what they would like to buy.[27] And factory managers continue to hoard workers, because—in practice, as opposed to theory—the number-one criterion of performance is to meet planned output (regardless of cost).

Although Moscow recognizes these problems, the gains in living standards or the reforms necessary to evoke substantial productivity gains are not in the offing. Even if harvests return to the average during the next three years, the chances are small that Moscow can recapture the momentum of the late 1960s and 1970s in improving the diet. Moreover, gains in the production of other consumer goods, notably durables, will be limited by the stiff competition for resources from defense programs and from investment.

As an alternative to increased production, Soviet planners are looking for ways to cut down on annual increments to consumer purchasing power. In mid-1979 they increased the prices on a number of luxury goods substantially—automobiles by 18 percent, imported furniture sets by 30 percent, jewelry by 50 percent, and beer by 48 percent. In September 1981 further price increases on luxury goods went into effect. Most of these items are scarce and are traded extensively on the black market, probably at prices far in excess of the recent increases. In 1981 Nikolay Glushkov, chairman of the State Price Committee, said:

> *The preservation of the stable level of retail prices for the basic edible and nonedible commodities cannot mean the administrative freezing of retail prices for all commodities. . . . There must be a different approach to prices of commodities for which there is a mass, daily demand, on the one hand, and individual groups of what might be called prestige commodities, on the other hand.*

A good deal of consumer purchasing power could be absorbed by an increase in the fixed prices of housing and food. The basic rent has not changed since 1928—although recently there has been public discussion of possible rent increases.[28] Maintaining the constant level of food prices at state retail outlets still appears to be sacrosanct. Soviet leaders continue to promise price stability for basic foodstuffs. The recent disturbances in Poland are clearly on their minds.[29]

25X1

25X1

What Lies Ahead

Productivity Growth During the 1980s

Workers are likely to perceive the government's corrective measures—a slowdown in wage increases coupled with strict controls on the factory floor—as a turning back of the clock to less prosperous times. The labor disturbances at Tol'yatti and Gor'kiy in 1980 were triggered by food shortages, but they also apparently involved low pay and poor working conditions. In such an environment, the leadership is unlikely to get the worker participation, interest, and effort that it wants.

25X1

25X1

The point at which disappointment over the economy's performance results in serious labor trouble cannot be predicted, but such a possibility already worries the leadership.[30]

25X1

Moving toward the mid-1980s, as the USSR experiences difficulties and failures in achieving the goals of the 1981-85 plan and the annual increments to the labor force become smaller, Moscow may have to adopt even further restrictive measures in an effort to raise output. For example, it could extend the workweek or sharply limit workers' ability to change jobs. The current economy, however, is vastly different in both scale and complexity from that of the Stalin era, when strong-arm tactics were the rule. A tough approach to labor might keep productivity growing at its present low rate, but it probably would do little to boost it in the long run and certainly would add to tensions in the work force.

25X1

25X1

Long-Term Policies: Some Hope for the Future

Because prospects for boosting labor productivity by improving living standards during the 1980s are not bright, Soviet leaders are pursuing a number of policies which, over the longer term, could ease their labor difficulties. 25X1

Automation and Mechanization. The most promising long-term policy involves an effort to substitute capital for labor by mechanizing and automating labor-intensive industrial processes. This has been declared one of the five major tasks of the 11th FYP.

Despite the system's poor record, the potential for drawing upon the "hidden labor reserves" is there. Roughly half of all industrial workers in the USSR perform manual labor, and the rate at which this share declines has been glacial—about one-half a percentage point each year. Moreover, most of these manual laborers are engaged not in production but in such labor-intensive auxiliary processes as loading, transport, repair work, and storage operations.

Increased automation, however, will require an acceleration in investment in modern machinery and equipment—which Moscow cannot accomplish quickly. Mechanization and automation had a high priority in the 1976-80 plan period, but Soviet industry made little progress in mechanizing auxiliary processes because it failed to turn out large quantities of specialized materials-handling equipment.[31] Now, with investment growth slowing (the planned growth rate of 2.5 percent annually during 1981-85 is the lowest for any FYP), automation and mechanization will have to fight even harder for their share of investment resources. 25X1

Regional Shifting of Capital Investment. Some planners have been advocating a rise in the relative share of investments in Central Asia and other labor-surplus areas, and the 11th FYP does schedule several labor-intensive projects for Central Asia, primarily in the light and food industries. Nevertheless, any shift in the regional investment patterns—which historically have slighted the labor-surplus areas in the southern-tier republics—will come slowly, if at all.[32]

During the 1980s Central Asia will face stiff competition for any new investment rubles from Siberia and the European USSR. Because of increasing stringencies of supplies of raw materials in the industrial heartland west of the Urals, massive investments in Siberia are needed to find, extract, and transport its energy and other raw materials. In 1979, for example, investment in energy development, principally in Siberia, accounted for almost half of the growth in new investment. In addition, the European USSR has many existing facilities that can be modernized and expanded—a more efficient use of investment rubles than building new plants in Central Asia. The further slowdown in investment growth during the 11th FYP, coupled with these competing needs, means that the possibility of rapid expansion of new plants and equipment in Central Asia is slight. 25X1 25X1

Increasing the Birth Rate. Finally, in its concern for labor shortages the government is formulating a pronatalist demographic policy—clearly a long-term corrective measure. It has moved slowly in implementing this policy, however, because of the enormous costs of developing the necessary infrastructure—expanded day-care facilities, increased housing, improved social amenities, and consumer services. The government has also moved slowly because of political sensitivity over whether to adopt a uniform policy for the entire USSR or one aimed at boosting birth rates only in low-fertility regions—which are predominantly Slavic. The reports by President Brezhnev and Premier Tikhonov at the 26th Party Congress seem to endorse the regional approach. Their proposals, which call for lump-sum grants for first, second, and third births and one-year partially paid maternity leave for working mothers, will be introduced gradually—first in the Soviet Far East and Siberia. These are predominantly Slavic regions characterized by low fertility and high female employment.[33] 25X1

Any successful pronatal campaign, however, would mean at least temporary withdrawal of more women from the labor force and thus some short-term costs to the economy. The gains would not be realized until after the year 2000, when the new persons would begin to reach working age. 25X1

25X1

Appendix A

Methodology for Projecting the Soviet Labor Force, 1981-90

We estimate that during 1981-90 the growth of the Soviet labor force will be nearly twice the growth of the working-age population (males age 16 to 59, females age 16 to 54). This appendix summarizes the estimating procedures. It presents two estimates of labor-force growth, incorporating two different assumptions about Soviet labor-force participation rates (LFPRs) during the decade.

The first (method I) is derived by maintaining the 1980 rates for specific age and sex categories during 1981-90 (tables 3 and 4). This estimate isolates the substantial positive impact that the changing age composition of the population will have on labor-force growth during this period.

The second estimate (method II) incorporates the same changes in age composition but includes changes in LFPRs that will probably occur over time. There are two main factors for change:

- The adoption of new government policies (for example, the 1980 revision in pension laws designed to encourage more people of retirement age to remain in the labor force).
- The changing regional composition of population growth (for example, an increasing share coming from the southern-tier republics).

In both methods, estimates of LFPRs for the base year (1980) are derived from analysis in Foreign Economic Report No. 10, Department of Commerce, September 1976, by Stephen Rapawy, *Estimates and Projections of the Labor Force and Civilian Employment in the USSR, 1950 to 1990*. The last officially reported data on LFPRs are in the 1970 census.

Table 4 provides a detailed breakdown of the data by age and sex. Under both sets of assumptions, labor-force growth during the 1980s is higher than the growth of the working-age population.

Table 3 Thousand Persons as of 1 January

Growth of the Soviet Working-Age Population and Labor Force (Assuming Constant LFPRs)

	1971	1981	1991
Total working-age population	**132,794**	**156,087**	**161,034**
Male	65,306	79,066	82,607
Female	67,488	77,021	78,427
Net 10-year increment		23,294	4,947
Average annual rate of growth		(1.6 percent)	(0.3 percent)
Total labor force	**126,656**	**146,569**	**155,937**
Male	61,909	73,930	80,038
Female	64,747	72,639	75,899
Net 10-year increment		19,913	9,368
Average annual rate of growth		(1.5 percent)	(0.6 percent)

These calculations assume that there is no change in labor-force participation rates during 1981-90 for age- and sex-specific categories.

Growth, Assuming No Change in LFPRs During 1981-90

Table 3 shows the growth of the able-bodied population and labor force during 1971-90. The average annual rate of growth (AARG) of the working-age population and of the labor force during 1971-80 were roughly equal (1.6 percent and 1.5 percent). During 1981-90, the AARG of both will fall sharply, but the fall in the labor force will be much less pronounced because of the changes in the age and sex structure of the population.

Table 4

Thousand Persons as of 1 January

Growth of the Soviet Labor Force and Population Age 16 Years and Over

Age and Sex	1971			1981			1991	
	Population [a] (1)	LFPR [b] (2)	Labor Force [d] (3)	Population [a] (4)	LFPR [c] (5)	Labor Force [d] (6)	Population [a] (7)	Labor Force [d] (8)
Male (16 and over)	**74,807**		**61,909**	**89,527**		**73,930**	**97,495**	**80,038**
16 to 19	9,066	53.3	4,832	9,711	48.4	4,700	8,603	4,164
20 to 29	15,605	89.7	13,998	24,017	89.5	21,495	21,617	19,347
30 to 39	18,605	97.6	18,158	15,016	97.6	14,656	23,022	22,469
40 to 49	14,526	95.9	13,930	17,407	95.9	16,693	14,006	13,432
50 to 54	3,370	90.0	3,033	8,275	90.0	7,448	9,016	8,114
55 to 59	4,134	79.9	3,303	4,640	79.9	3,707	6,343	5,068
60 and over	9,501	49.0	4,655	10,461	50.0	5,231	14,888	7,444
Female (16 and over)	**94,988**		**64,747**	**108,112**		**72,639**	**114,580**	**75,899**
16 to 19	8,697	47.8	4,157	9,390	40.8	3,831	8,371	3,415
20 to 29	15,501	86.3	13,377	23,451	86.1	20,191	21,299	18,338
30 to 39	19,240	92.7	17,835	15,368	92.7	14,246	23,221	21,526
40 to 49	18,470	90.6	16,734	18,882	90.6	17,107	15,072	13,655
50 to 54	5,580	77.3	4,313	9,930	77.3	7,676	10,464	8,089
55 to 59	7,505	44.4	3,332	7,754	45.4	3,520	7,610	3,455
60 and over	19,995	25.0	4,999	23,337	26.0	6,068	28,543	7,421

[a] The population figures in columns 1, 4, and 7 are estimates prepared by the Foreign Demographic Analysis Division, US Bureau of the Census, in May 1980. They are based on the age-sex distributions reported in the 1970 Soviet census and the official Soviet figures for total population, births, and deaths for the years 1970-75.

[b] To derive the labor-force participation rates (LFPRs) in column 2, the 1970 census figures on labor force by age and sex (reported in *Vestnik statistiki*, No. 12, 1974, p. 90) were divided by the corresponding population groups estimated by the US Census Bureau.

We have had to adjust the participation rates of the pension-age population substantially, however, because the census data include only a small portion of the working pensioners. Soviet census methodology includes in the labor force those who are working on a permanent job basis at the time of the census and excludes those in temporary or part-time jobs. Because much of agricultural employment is seasonal, pensioners may work for limited periods; thus they would be excluded from the census data on the labor force.

To make our estimates of the labor force approximate the actual total labor input of the USSR (expressed in fully employed manyear equivalents), we added an allowance for pensioners. Rates were adjusted upward by 29 percentage points for males and 18 percentage points for females over those implied by the official data.

This adjusted 1970 LFPR for the pension-age population is assumed to remain constant for the entire period shown in the table.

[c] To derive the LFPRs shown in column 5:

16-19 years	Participation rates between 1970 and 1980 were decreased annually at one-third the annual rate of decrease between 1959 and 1970 to reflect the continued trend toward extending the length of compulsory education.
20-29 years	The 1970 rates were decreased by 0.2 percentage points to allow for the delay in entering labor force caused by continued schooling.
30-54 years	The 1970 rates were held constant.
55-59 years	The 1970 rates were held constant for males and increased by 1 percentage point for females. Women will be encouraged to remain in the labor force longer because of the slow growth in the supply of manpower.
60 years and over	The 1970 rates were increased by 1 percentage point.

[d] We derived the labor force figures in columns 3, 6, and 8 by multiplying the US Census Bureau's population figures by the appropriate participation rate. For the 1991 calculations we use the 1981 LFPR in column 5.

25X1

Overall, in the 1980s roughly 4.5 million more persons will be added to the labor force than to the working-age population. The reasons for this difference lie in the changing age and sex structure of the population.

During the next decade, the pension-age population will increase by 9.5 million persons (it was only 4.6 million persons during 1971-80). Holding participation rates constant, the share of pensioners in the labor force will increase from 10.1 percent to 11.7 percent of the work force. By definition, these pensioners are dropped from the Soviets' count of the working-age population—but those who keep working are included in the labor-force count. Without working pensioners, the increment to the labor force would be reduced by 3.5 million persons, as shown in table 5.

25X1

Another factor contributing to the higher rate of labor-force growth is the changing age structure of the labor force. During 1981-90, the share of working-age people in their thirties and forties will increase by about 4 percentage points (from 42.7 percent to 46.8 percent) as a result of the increase in the birth rate in the post–World War II period. Participation rates for these age cohorts average about 94 percent, higher than the rates for older or younger groups. This 1980s concentration of workers in the age cohorts with the highest participation rates implies that there will be roughly 1.6 million more persons in the labor force. The effect of the changing age structure is shown in table 6.

A third (but less significant) factor explaining some of the difference in growth between labor force and working-age population is the change in the sex structure of the labor force. During the 1980s the number of males in the able-bodied ages of the labor force will rise by 5.7 percent and that of females by only 3.1 percent. The differential growth rates for the two groups reflect the gradual recovery from the sex imbalance caused by wars and internal conflicts in earlier years, with the attendant differential death rates. In 1950 the Soviet Union had 77 males per 100 females in the able-bodied ages, but by 1990 the rate will have increased to 105 males per 100 females.

Table 5 Thousand Persons as of 1 January

Impact of Pensioners on Soviet Labor-Force Growth

25X1

	1981	1991	Net Increment
Total labor force	146,569	155,937	9,368
Total labor force excluding old-age pensioners [a]	131,750	137,617	5,867
Difference			3,501

[a] Males 60 years and older, females 55 years and older.

25X1

Participation rates of males in the labor force are higher than those for females in all age cohorts. The changing sex structure will contribute about 100,000 persons to the labor-force increment during 1981-90.

25X1

Growth, Projecting Changes in Participation Rates for Specific Age-Sex Categories

In the foregoing analysis, labor-force participation rates have been held constant for specific age-sex categories throughout 1981-90. This assumption is probably too rigid, however—changes in the regional composition of population growth and in government policies are bound to have an effect by the end of the decade. This section incorporates changes in labor-force participation rates among: 25X1

- Teenagers, whose participation rates will probably continue falling (as they have since 1970) as compulsory education is prolonged.
- Females between 20 and 39, whose participation rates probably will decline as the share of women from Central Asia in this age group increases.
- Old-age pensioners, whose participation rates will probably increase because of recent changes in pension laws.

Our analysis demonstrates, however, that these changes in LFPR will tend to offset each other, so that their combined impact on labor-force growth will be negligible. The "hidden labor reserves" so frequently referred to by Soviet economists and government officials are simply not available.[34]

25X1

Table 6

Thousand Persons as of 1 January

Population and Labor Force Projections, Assuming No Change in Age Distribution

Age and Sex	1981			1991			
	Population [a] (1)	Percent Distribution [b] (2)	Labor Force [c] (3)	Population [a] (4)	1991 Population Standardized by 1981 Age Distribution [d] (5)	Standardized Labor Force [e] (6)	Unstandardized Labor Forces [c] (7)
Male (16-59)	**79,066**		**68,699**	**82,607**	**82,607**	**71,776**	**72,594**
16 to 19	9,711	.1228	4,700	8,603	10,144	4,910	4,164
20 to 29	24,017	.3038	21,495	21,617	25,096	22,461	19,347
30 to 39	15,016	.1899	14,656	23,022	15,687	15,311	22,469
40 to 49	17,407	.2201	16,693	14,006	18,182	17,436	13,342
50 to 54	8,275	.1047	7,448	9,016	8,649	7,784	8,114
55 to 59	4,640	.0587	3,707	6,343	4,849	3,874	5,068
Female (16-54)	**77,021**	**1.000**	**63,051**	**78,427**	**78,427**	**64,204**	**65,023**
16 to 19	9,390	.1219	3,831	8,371	9,561	3,901	3,415
20 to 29	23,451	.3045	20,191	21,299	23,881	20,562	18,338
30 to 39	15,368	.1995	14,246	23,221	15,646	14,504	21,526
40 to 49	18,882	.2452	17,107	15,072	19,230	17,423	13,655
50 to 54	9,930	.1289	7,676	10,464	10,109	7,814	8,089
Total	**156,087**		**131,750**	**161,034**	**161,034**	**135,980**	**137,617**

[a] See table 4, columns 4 and 7.
[b] Percent distribution of column 1.
[c] See table 4, columns 6 and 8.
[d] Totals for column 4 multiplied by distribution in column 2.
[e] Column 5 multiplied by participation rates in table 4, column 5.

Sources and Methodology: To isolate the impact the changing age structure will have on labor-force growth during 1981-90, the 1 January 1991 population has been converted to an age distribution that prevailed on 1 January 1981. The standardized labor force shown in column 6 is the size of the labor force if there were no change in age structure during the decade and pensioners were excluded from the labor force.

25X1

Teenagers

Even though population growth slowed during the 1970s, the USSR extended the length of compulsory education and expanded technical training, keeping the scarcer young people in school for a longer time. According to Soviet estimates, those who entered the labor force in the late 1970s were 19 or 20 years old—two to three years older than those who entered in the late 1960s.[35] Because we expect this trend to continue, we estimate that participation rates among the school-age population (16 to 19 years) will decrease by about 5 percentage points over the next decade. Table 7 shows the data in the 1959 and 1970 census and our projections to 1990 following the same pattern.

25X1

Table 7

Rates of Participation in the Labor Force by the School-Age Population

	1959	1970	1980	1990
Males 16-19	64.4	53.3	48.4	43.9
Females 16-19	71.0	47.8	40.8	35.0

Source: See Rapawy, Federal Economic Report 10, pp. 15-16 for a derivation of these rates.

25X1

The Soviet leadership appears to be gambling that additional technical training will raise the productivity of new workers sufficiently to offset the production forgone by their delay in entering the labor force. The 5-percentage point decline in LFPR projected for 1980-90 means that roughly 850,000 fewer workers will enter the labor force than the overall school-age population would suggest. 25X1

Women

During the 1980s, over two-fifths of the increment to the total working-age population will be made up of females in their twenties and thirties from Central Asia and Kazakhstan (roughly 2 million of the 5 million shown in table 3). The Soviets have not released age-specific participation rates for women in these regions in the past two censuses, but it is estimated that whatever their ages, their LFPRs are substantially below the national average. Indeed, the regional variations became more marked in the 1970s, if the estimates in table 8 are credible and participation by Central Asian women fell slightly.

Nonetheless, for the 1980s we expect only a relatively small decline in participation rates among females in their twenties and thirties. The share for females age 20 to 39 from Central Asia and Kazakhstan looms large in the 10-year increment, but they will still comprise less than 20 percent of all Soviet females of that age group in 1990. Moreover, two factors suggest that the LFPR among women age 20 to 39 in Central Asia and Kazakhstan might increase:

- The Soviet Government is trying to increase female employment and educational attainment in general.

Table 8

Rates of Female Participation in the Labor Force

	1965	1970	1975
USSR as a whole	**72.7**	**81.6**	**83.1**
RSFSR	76.0	85.1	86.9
Kazakhstan	63.0	71.8	72.5
Central Asia	67.4	66.5	65.4

Source: Alastair McAuley, *Women's Work and Wages in the Soviet Union,* London, 1981, p. 37. McAuley explains that women in Central Asian communities participate to a high degree in farm work. As industry has increased in that region, women have participated in it less than men.

25X1

- There is some evidence of declining fertility among these women—and thus more likelihood of their working outside the home.

Even so, their LFPR will probably remain far below the national average. 25X1

As a result of these calculations, we have decreased the LFPR for all females age 20 to 39 by 2 percentage points during 1981-90, which means roughly 900,000 fewer females in this age group will enter the labor force than the previous pattern would suggest.

25X1

Pensioners

One of Moscow's few possible sources of additional labor is the retirement-age population. Currently the retirement age in the USSR is the lowest in the industrialized world (55 years for women and 60 years for men), sending home large numbers of potentially productive workers. In an effort to tap this group, pension laws were revised on 1 January 1980 to encourage workers to stay on the job beyond retirement age. The new regulations increased pensions by 10 rubles per month (to a 40-ruble maximum increase) for each year of work beyond retirement age. Moreover, depending on the type of job, pensioners will be paid all or part of their pension income for as long as they continue to work. This incentive is likely to increase the LFPR of this cohort. 25X1 25X1

Table 9 Thousand Persons as of 1 January

Comparison of Projections, Using Constant and Changing Labor-Force Participation Rates

	1981	1991
Constant LFPRs		
Total labor force	**146,569**	**155,937**
Male	73,930	80,038
Female	72,639	75,899
Net 10-year increment		9,368
Average annual rate of growth		(0.6 percent)
Changing LFPRs		
Total labor force	**146,569**	**155,812**
Male	73,930	80,394
Female	72,639	75,418
Net 10-year increment		9,243
Average annual rate of growth		(0.6 percent)

Table 10 Thousand Persons as of 1 January

Estimated Total Soviet Labor Force, 1981-91, Using Changing Participation Rates

	Total	Male	Female
1981	**146,569**	73,930	72,639
1982	**147,797**	74,696	73,101
1983	**149,063**	75,579	73,484
1984	**150,164**	76,349	73,815
1985	**151,115**	77,041	74,074
1986	**151,885**	77,633	74,252
1987	**152,554**	78,162	74,392
1988	**153,187**	78,651	74,536
1989	**153,936**	79,152	74,784
1990	**154,608**	79,655	74,953
1991	**155,812**	80,394	75,418

25X1

25X1

Another factor that will tend to increase the pensioners' LFPR is their changing age structure. Of the 9.5-million person increment to the retirement-age population in the 1980s, roughly 4 million will be males between 60 and 64 (table 4). The Soviets have not published a breakdown by age of LFPR for retirees in the last two censuses, but a substantial number of them apparently continue to work. According to one survey, the LFPR for highly skilled scientific workers and medical personnel between 60 and 64 averaged almost 70 percent, and another source indicated that for all workers and employees the figure was 60 percent.[36]

Taking into account both the changing age structure and the added incentive to continue working, we have increased the LFPR for males by 5 percentage points in our projection and that for females by 2.5 percentage points. This change adds roughly 1.7 million persons to the labor force.

Impact of Projected Changes in LFPR

Table 9 shows that the net effect of the increases and decreases discussed above is almost negligible. (Table 10 provides a year-by-year estimate of labor-force growth during 1981-90.) The greater employment among pensioners (calculated as up by 1,700,000) is likely to be offset by declining participation rates for teenagers and females age 20 to 39 (down by 900,000 in each group).

25X1

Even if the Soviets were able to maintain participation rates among the groups where we expect a decline, however, the average annual growth of the labor force would still be less than 1 percent. The same situation would exist if LFPRs for pensioners increased during the 1980s by 10 percent for males and 5 percent for females—double our current estimate. That would add another 1.7 million persons to this cohort, but the average annual growth of the total labor force would be increased by only 0.1 percent per year. In short, the USSR will be unable to avoid severe labor shortages during the next decade. Therefore, most economic progress must come from increased labor productivity.

25X1

25X1

25X1

Appendix B

Regional Trends in Soviet Population Growth

Birth rates throughout the USSR have fallen since 1960. The differences among regions have increased, however, because the drop has been more pronounced in the European region. 25X1

Variations among union republics in levels of fertility have become so pronounced that Soviet researchers have begun to refer to three "demoregions" in the USSR. The European demoregion, comprising the Slavic and Baltic republics, is the most demographically "advanced"—both birth and death rates are low, so that natural increase (the excess of births over deaths) is low. The Transitional demoregion, comprising the Transcaucasus republics plus Moldavia, has declining birth rates and low mortality, resulting in a moderate (and slowing) natural increase. The Central Asian demoregion, the least demographically advanced of the three, shows high birth rates (which have only just begun to decline) and low mortality, so that population growth is rapid.

The causes of this regional differentiation have been debated at length by both Soviet and Western researchers. Probable factors include differences in the levels of urbanization, female labor-force participation, and availability of housing, as well as differences in attitudes toward family size among the USSR's nationalities.

In 1960 the birth rates for the Central Asian demoregion as a whole and for the Transcaucasus were about 80 percent higher than that for the European demoregion (table 11). By 1975 the differential had increased sharply; the Central Asian rate was 1.4 times that of the Transcaucasus region and more than double that of the European region.

The divergence in birth rates has caused major differences in age structure among the union republics, with important consequences for the distribution of labor resources. The republics in which fertility declined only slightly during the last 15 to 20 years have entered the 1980s with young populations. This means that a large proportion of the people (generally one-third to one-half) are in the preworking ages; about half are in the prime working ages; and relatively few (only about 10 percent) are in the postworking ages (table 12). 25X1

In contrast, those republics in which fertility declined sharply now have older populations. In these cases, the preworking ages generally account for less than one-fourth of the population, the prime working ages for a large (about 60 percent) but declining share, and the postworking ages a substantial (nearly 20 percent) and increasing share. In the transitional demoregion, where the decline in fertility has been between those of the others, the proportion in both the prime working ages and the postworking ages will generally increase slightly at the expense of the younger ages.

25X1 25X1

The number of individuals entering and leaving the working ages determine the dynamics of the labor pool. Thus, regional differences in population age structure will directly influence the geographic source of net increase to the national labor pool in the 1980s (table 13). In Central Asia and Kazakhstan, entrants are expected to outnumber retirees by 3 to 1, on average, during the decade. By contrast, in the RSFSR the entrants will be fewer than the retirees (only 90 percent). Consequently, in Central Asia and Kazakhstan the manpower pool will grow by an average 2.4 percent annually, and the RSFSR will experience an absolute manpower decline. 25X1 25X1

Clearly, the high-fertility republics must make up the shortfall in new workers in the low-fertility republics and will contribute almost all of the net increase in the manpower pool at the national level.

25X1

25X1

Table 11

Births Per 1,000 Population

Regional Differences in Birth Rates [a]

	1960	1965	1970	1975	1980
USSR	**24.9**	**18.4**	**17.4**	**18.1**	**18.3**
European Demoregion	**20.6**	**15.9**	**15.6**	**15.2**	**15.1**
Slavic Republics					
RSFSR	23.2	15.7	14.6	15.7	15.9
Ukraine	20.5	15.3	15.2	15.1	14.8
Belorussia	24.4	17.9	16.2	15.7	16.0
Baltic Republics					
Latvia	16.7	13.8	14.5	14.0	14.0
Lithuania	22.5	18.1	17.6	15.7	15.2
Estonia	16.6	14.6	15.8	14.9	14.9
Transitional Demoregion	**34.2**	**26.7**	**22.5**	**21.6**	**21.4**
Transcaucasus					
Azerbaijan	42.6	36.6	29.2	25.1	25.2
Georgia	24.7	21.2	19.2	18.2	17.7
Armenia	40.1	28.6	22.1	22.4	22.7
Moldavia	29.3	20.4	19.4	20.7	20.0
Central Asian Demoregion	**38.0**	**33.4**	**31.5**	**32.1**	**31.7**
Central Asia					
Uzbekistan	39.8	34.7	33.6	34.5	33.8
Kirghiziya	36.9	31.4	30.5	30.4	29.6
Tadjikistan	33.5	36.8	34.8	37.1	37.0
Turkmeniya	42.4	37.2	35.2	34.4	34.3
Kazakhstan	37.2	26.9	23.4	24.1	23.8

[a] Birth rates for regions are average birth rates.

Sources:
1960-70: *Naseleniye SSSR 1973*, Moscow, Statistika, 1974, pp. 69-83.
1975: *Narodnoye khozyaystvo SSSR v 1975 godu*, Moscow, Statistika, 1976, pp. 42-43.
1980: *Narodnoye khozyaystvo SSSR v 1980 godu*, Moscow, Statistika, 1981, pp. 32-33.

25X1

Table 12

Percent of Population in Given Age Group [a]

Estimated Age Composition of the Soviet Population, by Region and Republic

Region/Republic	1980			1985			1990		
	0-15 Years	16-59/54 Years	60/55+ Years	0-15 Years	16-59/54 Years	60/55+ Years	0-15 Years	16-59/54 Years	60/55+ Years
USSR as a whole	**26.2**	**58.4**	**15.4**	**26.5**	**57.1**	**16.4**	**27.0**	**55.6**	**17.4**
European Demoregion	**23.4**	**60.0**	**16.6**	**23.2**	**58.3**	**18.5**	**23.4**	**56.7**	**19.9**
Slavic Republics									
RSFSR	22.6	60.9	16.5	23.3	58.8	17.9	22.3	58.3	19.4
Ukraine	22.8	58.5	18.7	22.9	57.1	20.0	22.9	56.1	21.0
Belorussia	24.5	59.2	16.3	24.4	58.1	17.5	24.7	56.2	19.1
Baltic Republics									
Latvia	21.5	57.8	20.7	21.6	56.8	21.6	21.3	55.9	22.8
Lithuania	25.1	57.8	17.1	24.4	57.5	18.1	24.0	56.6	19.4
Estonia	22.7	57.3	20.0	22.7	56.5	20.8	22.0	55.8	22.2
Transitional Demoregion	**32.0**	**56.5**	**11.5**	**31.2**	**56.7**	**12.1**	**31.4**	**55.4**	**13.2**
Transcaucasus									
Azerbaijan	37.6	53.8	8.6	35.7	55.6	8.7	36.0	54.4	9.6
Armenia	32.5	58.3	9.2	31.8	58.1	10.1	31.8	56.5	11.7
Georgia	27.4	58.0	14.6	27.1	57.3	15.6	27.1	55.7	17.2
Moldavia	28.8	57.6	13.6	28.9	56.5	14.6	28.8	55.8	15.4
Central Asian Demoregion	**39.7**	**51.3**	**9.0**	**39.8**	**51.2**	**9.0**	**39.4**	**51.3**	**9.3**
Central Asia									
Uzbekistan	43.7	48.0	8.3	43.4	48.7	7.9	43.4	48.7	7.9
Kirghiziya	39.9	50.8	9.3	39.7	50.9	9.4	39.3	50.9	9.8
Tadjikistan	45.6	47.0	7.4	44.6	48.2	7.2	44.3	48.2	7.5
Turkmeniya	43.6	48.4	8.0	43.0	49.2	7.8	42.7	49.4	7.9
Kazakhstan	33.4	56.4	10.2	32.8	56.3	10.4	32.9	55.6	11.5

[a] 0-15 years: pre-working-age population.
16-59/54 years: working-age population (males 16-59; females 16-54).
60/55+: retirement-age population (males 60 and over; females 55 and over).

Source: US Bureau of the Census, *Population Projections by Age and Sex for the Republics and Major Economic Regions of the USSR 1970 to 2000*, Series 91, No. 26, US Government Printing Office, Washington, D.C., 1979.

25X1

Table 13 Million Persons as of 1 January

Regional Increases in Soviet Able-Bodied Population

Year	RSFSR		Central Asia and Kazakhstan	
	Able-Bodied Population	Average Annual Rate of Growth (percent)	Able-Bodied Population	Average Annual Rate of Growth (percent)
1970	73,565		15,214	
1975	78,835	1.4	17,908	3.3
1980	83,791	1.2	21,347	3.6
1985	83,543	−0.1	24,225	2.6
1990	82,462	−0.3	27,025	2.2
1995	81,817	−0.2	30,268	2.3
2000	83,449	0.4	34,437	2.6

Source: US Bureau of the Census, *Population Projections by Age and Sex for the Republics and Major Economic Regions of the USSR 1970 to 2000.* Series 91, No. 26, US Government Printing Office, Washington, D.C., 1979.

25X1

Appendix C

Recent Migration Trends

Several leading Soviet and Western scholars have postulated that large-scale migration by indigenous nationalities from the high-fertility southern tier of republics to labor-deficit areas in the European USSR and Siberia will occur and offset the impact of differing population growth rates. There are no signs that such movement is developing, however, and the Soviet leadership apparently is not counting on it.

Migration Between Republics

There has been a slight net migration into the RSFSR since 1975, but it apparently does not signal the beginning of a massive wave of migration out of high-fertility regions. Instead, it seems to indicate a trend toward increasing regional segregation of nationalities. Available census data [37] show, for example, that the major indigenous Central Asian nationalities became even more highly concentrated in their republics and region during the 1970s (see table 14). In 1979, more than 98 percent of all Uzbeks, Tadjiks, Kirghiz, and Turkmens lived in Central Asia and Kazakhstan. Only Kazakhs resided outside the region in substantial numbers, and their proportion declined between 1970 and 1979. Moreover, the majority of those living in other parts of the USSR had gone no farther from home than the five RSFSR oblasts bordering Kazakhstan.

25X1

Four of the republics in the southern tier—Georgia, Azerbaijan, Kirghiziya, and Kazakhstan—did experience a net loss of migrants during the period 1970-79. According to 1979 census data, however, in Georgia and Azerbaijan the absolute number of Russians declined, while in Kirghiziya and Kazakhstan, Russians declined in relative terms. Thus, most of the positive migration flow the RSFSR has recently experienced is probably made up of returning Russians—not an influx of native Central Asians.

During the 1980s, natives from Central Asia and Kazakhstan are unlikely to migrate to the urban industrial centers of European Russia on a scale large enough to offset the numerical shrinking of the labor pool. They have a number of reasons for staying at home:

25X1

- Although wages in European Russia are generally higher, living costs are also greater, nullifying the apparent advantage.
- The language problem would probably inhibit large-scale movement of Central Asians and Kazakhs to European Russia and Siberia, even if material incentives were increased.
- Central Asians are culturally attached to their homelands.
- The cities of European Russia have no established Central Asian neighborhoods and thus no ethnic areas to act as poles of attraction.[38]

25X1

The Soviets are trying to overcome some of these barriers—for instance, in recent years they have given heavy emphasis to Russian-language training in the southern republics—but rapid change is unlikely in the 1980s. Cultural barriers may well prove insurmountable, as the recent experimental use of Central Asian labor in the redevelopment of the nonchernozem zone of the USSR suggests. Entire Uzbek and Kirghiz collective farms were transplanted, with all their families and equipment, but even so widespread dissatisfaction and substantial return migration has been reported.[39]

25X1

Migration Within the RSFSR

On an intrarepublic level, migration is also not expected to equate labor supply and demand. Migration patterns within republics have not changed in a major way in the last 20 years. In particular, East Siberia continues to be a labor-deficit area with a high rate of net outmigration, despite higher wages and other

25X1

Table 14

Thousand Persons

Distribution of the Soviet Union's Major Central Asian Nationalities

Nationality	Total		Percent Residing in:			
			Own Republic		Own Republic or Elsewhere in Central Asia	
	1970	1979	1970	1979	1970	1979
Uzbeks	9,195	12,456	84.0	84.8	96.8	97.2
Tadjiks	2,136	2,898	76.3	77.2	98.4	98.5
Kirghiz	1,452	1,906	88.5	88.5	98.5	98.5
Turkmens	1,525	2,028	92.9	93.3	98.3	98.5
Kazakhs	5,299	6,556	79.9	90.7	90.8	91.8

Source: 1970: *Itogi Vesesoyuznoy perepisi naseleniva SSSR 1970 goda*, vol. IV, *Natsional'niy sostav naseleniya SSSR*, pp. 9-15, 1979; *Naseleniye SSSR po dannym Vsesoyuznoy perepisi naseleniya 1979 goda*, Politizdat, 1980, pp. 23-30.

25X1

economic incentives given to workers there. Of the eastern regions of the RSFSR, only the Far East has managed to sustain a positive migration balance. This appears to be due in part to an eastward drift of migrants from European Russia via West and East Siberia. In recent years, however, net outmigration has diminished markedly in East Siberia and to a lesser extent in West Siberia.

The Urals region has consistently generated net outmigration since the late 1950s, experiencing the largest net loss of any of the 10 economic regions in the RSFSR in the first half of the 1970s. The outmigration of both urban and rural inhabitants from the Urals has created severe labor shortages. In the European USSR, the Volga-Vyatka and central chernozem regions have been losing population through outmigration for many years, suffering a drastic rural depopulation. The 1970 census data suggest that migrants from the Volga-Vyatka region settle temporarily in the Urals before moving farther east, while the migrant stream from the central chernozem region is predominantly toward Central Russia or southward to the Ukrainian SSR.

25X1

In the European RSFSR, only the North Caucasus region has consistently shown a net gain of migrants; in 1970, over 40 percent of these were headed for rural destinations, and many appear to have been returnees from the Urals and Western Siberia. This "irrational" migration pattern must concern the Soviet leadership, since people are leaving labor-deficit areas to settle in an area of growing labor surpluses.

25X1

25X1

Appendix D

Legislation Affecting the Labor Force

The USSR has issued numerous decrees since December 1975 to cope with the tightening labor market and to increase the effectiveness of the labor force. The compilation (table 15) presented here is lengthy, but not all-inclusive. It groups the decrees into four categories—training, supply, productivity, and allocation—and provides the title, date, issuing authority, and a brief summary of major provisions.

25X1

Table 15

Legislation Affecting the Labor Force, 1975-81

Title	Date Issued	Issuing Authority	Major Provisions/Comments
I. Training			
On the Further Improvement of the Training Process and Education of Pupils in the Vocational and Technical System	September 1977	Central Committee CPSU, Council of Ministers, USSR	Expands vocational and technical school training, particularly at the secondary level. Stipulates vocational/technical schools as major vehicle for training future workers. Provides three-year course of study for eighth-grade graduates; to include occupational training and general secondary training. Establishes one- to two-year course of occupational training for 10th-grade graduates of general secondary schools.
List of occupations for workers in upper wage-skill categories which require specialized secondary education	September 1977	Goskomtrud	Calls for growth of a "wage earner–intellectual" class of people with specialist training doing blue-collar jobs, albeit at a higher pay scale.
On Further Improving the Training and Education of Pupils in General Education Schools and Their Preparation for Work	December 1977	Central Committee CPSU, Council of Ministers, USSR	Increases vocational training in grades 9-10 from two to four hours weekly. Emphasizes practical labor education at enterprises, collectives, and state farms near the school. Changes curriculum, study programs, and textbooks to ensure polytechnical or labor orientation of education. Arranges for planned integration into labor force of general secondary school graduates who do not continue their education.
Improving the Planning and Training of Specialists and the Utilization of Graduates of Higher and Specialized Secondary Schools in the National Economy	January 1978	Council of Ministers, USSR	Seeks to improve the training, distribution, and use of specialists by: 1) Using labor balances more extensively in devising annual and five-year plans. 2) Locating specialized secondary schools near territorial-production complexes. 3) Centralizing training on basis of available equipment and personnel. 4) Establishing sectoral plans based on need for specialists. 5) Establishing model schedules for specialist positions, particularly correlating relationship of engineers and technicians. 6) Improving allocation plans for graduates. 7) Ensuring that job assignments are based on training and qualifications.
On Measures for Further Improving the Study and Teaching of Russian Language in Union Republics	October 1978	Council of Ministers, USSR	Provides for smaller student-teacher ratios in Russian-language classes in non-Russian schools. Grants republic education ministries latitude in expanding Russian-language instruction at the expense of the rest of the curriculum.

Table 15 (continued)

Title	Date Issued	Issuing Authority	Major Provisions/Comments
Further Development of Higher Education and Raising the Quality of Specialists' Training	July 1979	Central Committee CPSU, Council of Ministers, USSR	Improves the quality of technical training. Establishes training centers in Siberia, Far East, and nonchernozem zone of RSFSR. Assigns graduates to jobs in local areas to reduce turnover. Offers unspecified material incentives to woo students to less popular specialities. Permits secondary school graduates to enter higher schools in certain specialities on the basis of two instead of four entrance examinations. Assigns higher school graduates to jobs one to three years before graduation. Plans call for eventually assigning jobs five years before graduation.
On Measures for Further Improving the Training and Raising the Qualifications of Workers at Their Place of Work	October 1979	Central Committee CPSU, Council of Ministers, USSR	Expands production training facilities. Provides for intensive management training for administrators of on-the-job training programs. Emphasizes the training of female workers, including full-time training programs with pay for women with young children.
Regulations regarding vocational-technical schools of the USSR	April 1980	Council of Ministers, USSR	Requires vocational-technical school graduates to accept compulsory two-year work assignments chosen before their graduation. Reaffirms primacy of vocational-technical schools as major vehicle for training labor force.
II. Labor Supply			
On Additional Measures for Improving Working Conditions for Women Employed in the National Economy	July 1978	Council of Ministers, USSR and Union Republics, Goskomtrud, Presidium of All-Union Central Council of Trade Unions	Excludes women from dangerous or heavy work as of 1 January 1981. Lists occupations closed for women. Provides retraining without loss of pay or pension benefits. Unlikely to be implemented fully, since a large share of these dangerous or heavy jobs—80 percent of all manual construction jobs, for example—are held by women.
On Measures for Increasing Pension Benefits for Those Working After Reaching Pension Age	October 1979	Goskomtrud, Secretariat of All-Union Central Council of Trade Unions	Increases pensions by 10 rubles monthly (up to 40 rubles) for each year worked beyond retirement age, effective January 1980. Broadens eligibility of groups able to retain all or part of pension while continuing to work.

Table 15 (continued)

Legislation Affecting the Labor Force, 1975-81

Title	Date Issued	Issuing Authority	Major Provisions/Comments
Improving Working Conditions for Women Having Children and for Those Working Part-Time	April 1980	Goskomtrud, Secretariat of All-Union Central Council of Trade Unions	Encourages women with young children to work part-time. Guarantees pay and all benefits on prorated basis.
On Measures To Further Improve the Population's Social Security	March 1981	Central Committee CPSU, Council of Ministers, USSR	Increases minimum monthly pension rate to 50 rubles for workers and employees and 40 rubles for farmers. Raises annuity for those who have been retired more than 20 years to make it more comparable with current standards. Requests union republic authorities, USSR ministers, and departments to expand opportunities for pensioner participation in economy, emphasizing flexible work schedules.
On Measures To Increase State Assistance to Families With Children	March 1981	Central Committee CPSU and Council of Ministers, USSR	Provides 12-month partially paid maternity leave of 50 rubles for working mothers in Siberia and the Far East and 35 rubles per month for those in other regions. Provides additional leave on request (without pay) until child is 18 months. Increases and upgrades all types of child-care facilities, particularly those in areas with a high level of female employment. Provides wider implementation of part-time work schedule for working women. Grants working mothers with children below age 12: 1) Additional three days' paid leave. 2) Priority in scheduling vacation time. 3) Two weeks additional unpaid leave to care for children. 4) Fourteen days paid leave to care for sick children. Preferential treatment for newlyweds and families with children in obtaining individual or cooperative housing.
III. Labor Efficiency			
Standard regulation on the production brigade and team leader	December 1975	Goskomtrud, Secretariat of All-Union Central Council of Trade Unions	Bases all pay and bonuses on final result of work. Calls for reducing turnover by collective discipline.

Table 15 (continued)

Title	Date Issued	Issuing Authority	Major Provisions/Comments
Procedure for Using the Shchekino Method of Improving the Organization of Labor, Material Stimulation, and Planning	April 1978	Goskomtrud, Gosplan Ministry of Finance, All-Union Central Council of Trade Unions	Encourages expansion of the Shchekino experiment to increase labor productivity (in an effort to reduce number of workers and save on wage fund). Enterprises can use the following as incentives for introducing Shchekino: 1) Additional payment of up to 30 percent of wage rate or salary for all workers, employees, and management personnel who exceed planned production with decreased work staff. 2) Pay bonuses to those who devise labor-saving ideas. 3) Distribute savings in wage fund obtained by freeing workers.
Recommendations for the Development of the Brigade Form of Organizing Labor and Providing Incentives to Workers at Machine Building and Metal Working Enterprises	January 1979	Goskomtrud, Secretariat of All-Union Central Council of Trade Unions	Emphasizes increasing labor productivity by improving planning and management, reducing production times, and increasing labor discipline. Distributes bonus payments on basis of brigade's performance and individual productivity, rather than on basis of individual's wage rate. (Standard regulations based on these recommendations were adopted in December 1980.)
On the Improvement of Planning and the Intensification of the Influence of the Economic Mechanism on the Increase of Production Efficiency and Work Quality	July 1979	Central Committee CPSU, Council of Ministers, USSR	Most comprehensive decree in past decade. Touches on all facets of the economy. (Numerous subsequent decrees were required to implement all its provisions.) It calls for: 1) Emphasizing productivity in planning. 2) Placing ceilings on enterprise staff rosters. 3) Tying wage fund to normal outlay of wages per ruble of sold output. 4) Linking size of incentive fund to productivity and product quality.
On the Further Strengthening of Labor Discipline and Decreasing Turnover of Cadres in the National Economy	December 1979	Central Committee, CPSU, Council of Ministers, USSR, All-Union Central Council of Trade Unions	Stresses reducing turnover and galvanizing and putting pressure on work force. Requires one month's written notice of intent to resign from job. Advocates disciplinary action against people who come to work drunk, are illegally absent, or avoid employment. Increases increments to pension for continuous service of 25 years from 10 to 20 percent. Adds leave time for continuous service for blue- and white-collar workers with 15 days of vacation. Provides nonrepayable loans for cooperative and individual housing construction for those who have worked for five years or newlyweds who have worked for two years.

Table 15 (continued)

Legislation Affecting the Labor Force, 1975-81

Title	Date Issued	Issuing Authority	Major Provisions/Comments
Instructions on determining the index for reducing the use of manual labor in industry in accordance with the draft plan of economic and social development for 1981-85	March 1980	Confirmed by Gosplan, USSR, Central Statistical Administration (TsSU), USSR	Implementing instructions based on July 1979 decree on organization and management. Seeks to mechanize particularly dangerous or labor-intensive work. Calculates norms for reducing manual labor in industry on proportion of manual workers to total workers at the end of each year.
Instructions on establishing ceilings on the number of workers and employees for the 1980 labor plan	February 1980	Confirmed by Gosplan, USSR, and TsSU, USSR	Implementing instructions for 1980 plan. Seeks to limit the number of workers and employees at production enterprises. Establishes monthly quotas in conformity with quarterly and annual limits. Requires part-timers and those who work at home to be counted against the annual quotas. (This provision undermines previous decrees aimed at increasing part-time employment.)
On Measures To Limit the Increase and To Reduce the Number of Personnel in the Management Apparatus and Certain Sectors of the Nonproduction Sphere	November 1981	Council of Ministers, USSR	Reduces to 1980 levels employment in scientific, research, and design organizations, educational and other cultural institutions, and supply enterprises. Stipulates that growth in employment in trade, housing, and the government bureaucracy will be restricted.
IV. Labor Allocation			
On the Timely and Systematic Attraction of Graduates of General Secondary Schools into Work in the National Economy in 1978	June 1978	Goskomtrud, Central Committee, Komsomol	Improves job placement and labor education of young people in order to attract general secondary school graduates to production and service areas. Seeks compulsory job placement for those not continuing schooling. Assures that majority of those going to work in production learn a trade in technical school.
Summary of job placement of graduates of general secondary schools in 1979 and tasks of organs of labor, vocational-technical and general education schools, Komsomol committees for directing youth to the national economy and vocational-technical schools in 1980	January 1979 March 1980	Goskomtrud State Committee for Vocational-Technical Education, Ministry of Education, Secretariat of All-Union Central Council of Trade Unions, USSR	Provides followup summary of placement of general secondary school graduates by branch of economy. Calls for increased use of technical programs for training young people. Instructs Goskomtrud to control job placement of graduates. Increases informational role for Komsomol to reduce high turnover rates among young people.

Table 15 (continued)

Title	Date Issued	Issuing Authority	Major Provisions/Comments
Acting regulations on state control of the use of the work force	September 1978	Goskomtrud	Gives Goskomtrud expanded control over labor force, including authority to change labor plans for use of workers and employees, to reduce turnover, and to increase productivity.
Confirmation of Instructions on Resettlement of Collective and State Farm Families Involved in Livestock Products Production	May 1979	Goskomtrud	Provides for resettlement of families involved in agriculture to areas experiencing shortages of workers. Stipulates size of agricultural settlements. Awards monetary bonuses on arrival and after completion of one year of work, depending on location chosen. Grants housing credits based on location; Far East needs greatest number of settlers, but Kazakhstan and nonchernozem zone of RSFSR are now on a par with Siberian economic regions.
On the Conditions for Bureaus of Job Placement for the Population	December 1980	Goskomtrud	Increases use of job placement bureaus. Places them under authority of Goskomtrud of union republics. Expands the bureaus' function to include job information, placement, resettlement, and counseling for those out of labor force.

25X1

Footnotes

25X1

[1] The data on population and on labor-force size used in this paper were derived primarily from unpublished estimates prepared by the Foreign Demographic Analysis Division, US Bureau of the Census, US Department of Commerce, May 1980; *Foreign Economic Report No. 10, US Department of Commerce, September 1976, Stephen Rapawy, Estimates and Projections of the Labor Force and Civilian Employment in the USSR, 1950 to 1990;* and various issues of the USSR's annual statistical handbook *Narodnove khozyaystvo SSSR.* 25X1

These data have been supplemented where possible with information from the USSR's All-Union Census of January 1979. Only limited information from the census has been released so far, however, and data useful in labor-force analysis are noticeably scarce. Although final census results are still to be published, the Soviets have not announced officially (as they did with previous censuses) the publication format or what data will be released. According to one source, however, they intend to publish only two volumes of census data (seven volumes were released for the 1970 census). 25X1

[2] The Soviets define the working-age or able-bodied population as males between 16 and 59 and females between 16 and 54. They define the labor force as all those who claim an occupation at the time of the census, regardless of age or how long they have been working. It excludes partially employed pensioners, full-time students, and people engaged in the private subsidiary economy

[3] The new workers of the 1980s—those who will turn 16 years old during the decade—were born between 1964 and 1973, when the birth rate was at its lowest point. This small cohort will be replacing older workers—women reaching age 55 and men reaching age 60—who were born when birth rates were much higher. Available data indicate that in the mid-1960s the national birth rate (expressed as live births per 1,000 population) was about 42 percent that of the mid-1920s and in the early 1970s it was 40 percent. 25X1

[4] Between 1964 and 1974, for example, the mortality rate among men between 35 and 39 increased by 20 percent. The Soviets no longer publish such data, but Western researchers believe the rising trend is continuing. See *Wall Street Journal,* 20 June 1978, Christopher Davis and Murray Feshbach, "Life Expectancy in the Soviet Union"; and *Naseleniye SSSR 1973, Statisticheskiy sbornik*, 1974, Moscow. 25X1

[5] By international standards, the eligibility ages for retirement in the USSR (60 years for men and 55 years for women) are extremely low. Pensions are also very low, however; the minimum legal pension was raised to 50 rubles per month for industrial workers (less than one-third the monthly industrial wage) and 40 rubles per month for collective farmers in March 1981. As a result, about 70 percent of pension-age workers continue working, at least part-time, for the first five years beyond retirement age

[6] Reflecting the increased emphasis on vocational rather than general training, the share of full-time general secondary school graduates admitted to full-time programs in higher schools has declined from 41 percent in 1965 to 23 percent in 1980.

[7] To free 1 million persons for civilian labor would require a 20-percent reduction in military manpower. For a discussion of military manpower in the USSR, see Alan Smith, *Military Manpower Supply and Demand in the Soviet Union*, August 1980, prepared for the 1980 US Air Force Conference on the Soviet Union: "What Lies Ahead?" 25X1

[8] For a detailed methodological description of how our labor-force estimate was derived and of the impact that changing participation rates will have on labor-force growth, see appendix A 25X1

[9] Birth rates throughout the country have fallen since 1960. The differential among the regions has increased, however, because the drop has been much more pronounced in the European regions and the Transcaucasus. 25X1

[10] For a more detailed discussion of recent and future migration trends, see appendix C. 25X1 25X1

[11] There are, however, wide divergences in the level of urbanization among republics. Estonia, the RSFSR, Latvia, and Armenia are by far the most highly urbanized (66 to 70 percent urban), followed by Lithuania and the Ukraine (61 to 65 percent). Several other republics—Belorussia, Kazakhstan, Azerbaijan, and Georgia—are more than 50-percent urban, and the Central Asian republics and Moldavia are about 40-percent urban.

[12] *Ekonomika i organizatsiya promyshlennogo proizvodstvo* (EKO), No. 12, December 1980, pp. 58-72, L. A. Kostin, "Labor Productivity in the Present Stage. 25X1

[13] For a more detailed discussion of Soviet workers' attitudes, see *Survey,* Spring 1979, pp. 1-18, John Bushnell, "The Soviet Man Turns Pessimistic," and *Harpers,* February 1981, pp. 41-55, George Feifer, "Russian Disorders 25X1

[14] about 35 percent of the work force is absent on Mondays and Fridays in major industrial areas, primarily because of alcohol abuse. For a detailed discussion of these problems in the Soviet industrial labor force, see *Industrial Labor in the USSR,* edited by Arcadius Kahan and Blair Ruble, New York, Pergamon Press, 1979, pp. 3-18, Murray Feshbach, "The Structure and Composition of the Industrial Labor Force." 25X1

25X1 25X1

[15] Probably the most direct acknowledgment of a link between consumer welfare and labor productivity came in an unusually frank article by a prominent Soviet sociologist last year. After reviewing the current economic situation, the author concludes that it is "not accidental" that the current decline in the growth of labor productivity has taken place against a background of food and other consumer goods shortages. She adds that large investments in productive machinery will fail to increase productivity unless they are accompanied by large increases in the production of consumer goods. See *Ekonomika i organizatsiya promyshlennogo proizvodstva* (EKO), March 1980, pp. 15-33, T. I. Zaslavskaya, "Economic Behavior and Economic Development."

[16] In recent years, the Soviet Government has issued a large number of decrees that affect all facets of the labor market—participation rates, training levels, allocation, and so forth. For a list of these decrees and their major points, see appendix D.

[17] Reflecting their growing importance, the number of labor placement bureaus increased from roughly 370 in 1977 to over 650 in 1980. In 1977 they placed over 2 million workers, but no comparable figure has been published for 1980. See *Sotsialisticheskiy trud*, No. 7, 1981, pp. 64-70, I. Maslova, "Labor Placement Service: Development Trends and Methods of Improvement."

[18] Most vocational-technical schools are operated and supported by particular ministries and enterprises. In theory, the latter hire the workers graduating from the feeder schools. Assignments for the most part were not mandatory, however, and many students found jobs in enterprises other than those sponsoring their educatio

[19] Numerous recent speeches and articles have called for this enlargement. The Soviets trained 11 million workers in vocational-technical schools during 1976-80 and plan to train 13 million during 1981-85. This is further emphasized by the 10-fold increase in enrollments in secondary vocational-technical schools since 1970.

[20] See *Planovoye khozyaystvo*, No. 10, October 1979, pp. 38-46, N. Rogovskiy, "Problems of Increasing Labor Efficiency"; *Planovoye khozyaystvo*, No. 9, September 1980, pp. 34-43, Ye. Voronin, "Better Utilization of Labor Resources"; and *Voprosy ekonomiki*, No. 5, May 1980, "Work Force Reserves for the Economy."

[21] Since 1956, when Soviet workers were first permitted to change jobs without state approval, the rate of annual turnover for industrial workers has been about 20 percent. In some industries, such as construction, the rate is 40 to 60 percent.

[22] Brigades receive bonuses for economizing on materials or workers, or for completing a project ahead of schedule. The members themselves decide how they will divide the bonus. See *Voprosy ekonomiki*, No. 3, 1981, pp. 131-142, D. Karpukhin, "The Economic Mechanism and Labor"; and *Voprosy ekonomiki*, No. 10, 1980, pp. 26-36, S. Shkurko, "New Forms of Team Organization and Stimulation of Labor

[23] Two articles stand out in particular. *Khozyaystvo i pravo*, No. 3, 1980, pp. 26-31, L. Kostin, "Strengthening Labor Discipline" emphasizes the need for increased labor discipline and cites the implementation of the January 1979 decree as essential to it. Similarly, a major editorial in *Sotsialisticheskaya industriya* on 4 July 1980 quotes the Brezhnev statement on labor discipline and calls on factory managers to take a much harder line against slovenly workers. 25X1

[24] *Pravda*, 27 April 1981, 27 May 1981, 9 June 1981; *Izvestiya*, 28 April 1981; *Kommunist* (No. 7), May 1981; *Trud*, 15 May 1981; and *Molodoy Kommunist*, April 1981. 25X1 25X1

[25] Indicative of Moscow's concern is the change in Soviet press treatment of workers' welfare. In the spring of 1980 the press ignored strikes by auto workers in Tol'yatti and Gor'kiy, but there has been a spate of articles since the Polish strikes began in mid-1980 on the importance of settling workers' grievances. In August 1980, for example, *Pravda* published a number of articles sympathetic to workers and warned trade union officials to heed letters from workers as "barometers of public opinion." In April 1981 a CPSU Central Committee resolution called for a survey of worker attitudes—no doubt an effort to show sympathy for grievances and complaints. 25X1 25X1 25X1

[26] For a detailed discussion of these reforms, see the Joint Economic Committee study "*Soviet Economy in a Time of Change*, vol. I, Washington, D.C., 1979, pp. 312-340, "The Soviet Economy on a Treadmill of Reforms." 25X1

[27] An indicator of the growth of money income is the buildup of savings deposits. At the end of 1970, savings deposits totaled 46.6 billion rubles, 30 percent of retail sales. At the end of 1980, they totaled roughly 156.5 billion rubles, equivalent to 58 percent of annual retail sales. 25X1 25X1

[28] Subsidies to cover the difference between rents actually paid and housing costs to the state stand at 3 billion rubles 25X1

[29] It currently costs the Soviet Government 25 billion rubles a year in subsidies to maintain the official food prices. The subsidies cover the difference between the higher "farm gate" price and the lower price charged in state retail outlets. Prices at collective farm markets, however, have more than doubled since 1970. 25X1 25X1

[30] Evidence of this concern has been the widespread use of special food distribution systems at the factory level in recent years. These systems please the workers, who are most likely to demonstrate their dissatisfaction, and shift the pressure to groups who are less likely to demonstrate, like the elderly. 25X1 25X1 25X1

[31] To cite two examples, in 1975 the Ministry of Electrical Equipment Industry was slated to produce 7,000 electrical forklifts, with output scheduled to climb to between 24,000 and 27,000 by 1980. In fact, the Ministry produced fewer than 5,800 electric forklifts in 1975, and its 1980 plan had to be revised downward to less than 9,400. The Ministry of Automobile Industry has a record almost as bad. According to an official of the State Committee on Materials and Technical Supply, the Ministry satisfies only 50 percent of the plan for auto-forklifts annually, with the figure for some specialized types of loading equipment as low as 11 percent. [redacted] 25X1

[32] For a discussion of Central Asian regional development, see Rand Corporation, 1979, S. Enders Wimbush and Dimitry Ponomareff, *Alternatives for Mobilizing Soviet Central Asian Labor: Outmigration and Regional Development*; and the Joint Economic Committee, *Soviet Economy in a Time of Change*, vol. I, Washington, D.C., 1979, pp. 656-709, "Prospects for Outmigration From Central Asia and Kazakhstan in the Next Decade." [redacted]

[33] Boris Urlanis, the late Soviet demographer, suggested economic measures favoring urban over rural areas for child-support payments, increases in the share of wages paid during maternity leave for second and third children, and additional incentives for raising large families in certain areas—measures which would mostly benefit Slavic women. He also called for a migration policy using the "entire system of social, economic, legal, and administrative levers" to stimulate an exodus from rural areas with relatively unproductive labor surpluses. See *Vestnik Akademiya Nauk SSSR*, No. 1, January 1980, pp. 41-49, "Demographic Science and Demographic Policy"; see also , *Population and Development Review*, vol. 7, June 1981, pp. 279-295, "The Demographic Policy Debate in the USSR." Guidelines for the 11th FYP also echo many of these suggestions, in addition to calling for greater use of part-time employment for women with young children and increasing the network of extended day-school programs, kindergartens, and creches in areas of high female employment. [redacted]

[34] Participation rates for males and females in the remaining age categories are held constant in this section. These rates are unlikely to rise, because they are already extremely high by international standards and probably have reached a natural ceiling. They are also unlikely to decline given the labor shortages expected during the 1980s. [redacted]

[35] See *Ekonomicheskiye nauki*, No. 9, September 1979, pp. 51-59, A. Novitskiy, "Additional Sources of Labor." [redacted] 25X1

[36] *Sotsial'noye obespecheniye v SSSR*, pp. 116-142, M. S. Lantsev; and *Sotsialisticheskiy trud*, No. 9, 1977, pp. 40-47, A. Solov'ev, "Social Welfare at the Present Time." [redacted] 25X1

[37] Unlike the previous census, the 1979 census asked no questions about population mobility. Any insight into migration during the 1970s must be derived through estimating techniques or the use of indirect data (such as changes in the distribution of nationalities). For a full treatment of this subject, see Praeger, 1979, Robert Lewis and Richard Roland, *Population Redistribution in the USSR*. [redacted] 25X1

[38] For a more detailed discussion of the reasons why large-scale migration is unlikely to occur, see the Joint Economic Committee, *Soviet Economy in a Time of Change*, vol. I, 1979, "Prospects for Outmigration From Central Asia and Kazakhstan in the Next Decade." [redacted]

[39] *Uzbekistan-Nechernozem'yu*, 1979, S. M. Mamapasulov et al. [redacted]

25X1 25X1

25X1

25X1

25X1