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DEMOGRAPHIC SOURCES OF THE CHANGING ETHNIC COMPOSITION OF THE SOVIET UNION

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DEMOGRAPHIC SOURCES OF THE CHANGING ETHNIC COMPOSITION OF THE SOVIET UNION

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Among the most dramatic events in the Soviet Union since the beginning of the policy of *perestroika* in 1985 has been the increase in the assertion of rights of ethnic minorities. Among non-Russian ethnic groups, claims of cultural autonomy and the establishment of local languages as official languages have been related to concerns about loss of their distinctive ethnic heritages and patrimonies, the despoiling of the environment, and the lack of economic and political autonomy. Many of these claims have focussed on the policies of the central Party and government in Moscow as well as on the Russianization of the non-Russian regions.¹ Some of the most dramatic and violent instances of intergroup conflict have occurred between non-Russian ethnic groups, such as Uzbeks vs. Meskhetian Turks in Uzbekistan, Armenians vs. Azerbaidzhanis in Nagorno-Karabakh and elsewhere in Transcaucasia, and Abkhazians vs. Georgians in Soviet Georgia.

These events remind us that the Soviet Union is a multi-ethnic country and that ethnic loyalties are an enduring aspect of Soviet society. More than 90 distinct nationalities ("ethnic groups," in common English usage) have their historic homelands within its boundaries. Twenty-two nationalities have populations of 1 million or more. Table 1 provides some information about the ethnic composition of the Soviet Union according to recent censuses.

This paper discusses the changing ethnic composition of the Soviet population as a whole and by region. It examines the sources of change for different regions of the country, with special emphasis on fertility and migration. It shows that differences in growth rates are likely to lead to a marked change in the ethnic composition of the USSR in the near future. The analysis focuses on the population of the USSR as a whole as well as of the fifteen union republics that comprise the federal state structure. The titular nationalities of these republics -- the nationalities for which the republics are named -- comprise more than 90% of the population of the Soviet Union.²

Preliminary data on the ethnic composition of the Soviet population from the 1989 census (conducted in January) have recently become available.³ They show that Russians comprised 50.8% of the Soviet population. Before these data appeared, many people had speculated that the 1989 census would show that Russians had become a numerical minority of the Soviet population. In fact, Russians exceeded non-Russians by 4.45 million. This compares to a difference of 12.7 million in 1979⁴, 16.3 million in 1970, and 19.4 million in

² The remaining population consists of persons who belong to an ethnic group that lacks an official homeland (titular area) in the Soviet federation, or who belong to a nationality whose titular area is of lower status than union republic.

³ The first data for more than one nationality appeared in the Estonian newspaper Rahva Haal (19 September 1989), p. 2. These data were apparently "leaked" to the press by an official. The State Committee on Statistics (Goskomstat) has not formally released for publication any 1989 census data on nationalities. Such data are scheduled to be published at the end of this year. Our analysis draws on some unpublished data from the 1989 Soviet census (as well as some previously unpublished data from 1979) to which we have had access.

⁴ Figures for 1979 and 1989 refer to the "permanent" (*postoiannoe*) population. Figures for 1959 and 1970 refer to the "present" (*nalichnoe*) population. For discussion of this distinction, see Anderson and Silver (1985c).

¹ Following Aspaturian (1968), we use the term "Russianization" to refer to the spread of Russian people and Russian language in an area. It is distinguished from "Russification," which is change in the ethnic attachment or self-identification of non-Russians to Russian. Soviet scholars have eschewed use of the term "Russification" as well as of "assimilation" as implying an explicit official policy. In using terms such as assimilation, Russification, and reidentification, we do not imply anything about official policy. Instead, we use the terms to describe important aspects of change in ethnic self-identification.

1959. Russians could have fallen to a numerical minority in 1989 had there been a sudden and sharp reversal of assimilation of non-Russians by Russians. About 2.3 million people who might normally have been expected to call themselves Russians in the census would have had to have indicated a different ethnic affiliation to the census takers in 1989. This is less than 2% of the Russian population in 1989. We think that it is likely that some of this reversal did occur, but that it was not large enough to reduce the Russians to a numerical minority in 1989.

Even if no basic change in the structure of the Soviet federation were to occur, the ethnic composition of the Soviet population is likely to change dramatically in the future. If growth rates between recent censuses were to continue indefinitely into the future, Russians would become a numerical minority of the population of the USSR by the year 1994, and Slavic ethnic groups would become less than a majority by the year 2051. Moslems would exceed the number of Slavs by the year 2057 and would become a majority of the population of the USSR by the year 2066. These are projections, not predictions. But they indicate the impact of recent rates of growth in different segments of the Soviet population.

Components of Demographic Change

Four components of demographic change affect the composition of the population: migration, assimilation, mortality, and fertility. Of these, fertility and migration are the most important factors accounting for the changing ethnic composition of the Soviet population. In principle, one can examine each of these components not only to show their relation to the changing ethnic composition of the population but also to understand the main trends in underlying demographic processes.

A major limitation to studying the components of change in the ethnic composition of the Soviet population is that extremely little data have been published on fertility, mortality, and migration by ethnic group.⁵ Almost all of the published data on these demographic processes refer either to the USSR as a whole or to regional units of the Soviet federation. For this reason, as well as the lack of age data by nationality for 1979, use of standard cohort component methods to project the changing ethnic composition of the Soviet population is difficult.

Migration. For the USSR as a whole, international migration has had only a negligible effect on the composition of the population in recent decades, although it has had a large effect on the population size of the migrating groups. Emigration has mainly involved three groups: Jews, Germans, and Armenians.⁶ The level of emigration is determined both by political factors and by the attitudes and desires of populations from which emigrants come. Similarly, immigration has had little effect on the composition of the Soviet population as a whole, though it has had a substantial effect for some groups; for example, several thousand Armenians repatriated to Soviet Armenia after World War II, mostly from countries in the Middle East and the Mediterranean (Anderson and Silver, 1983).

Internal migration, on the other hand, has had a large effect on the ethnic composition of particular regions. It is at once a source of intergroup friction and of debate over population policy, particularly among people within the non-Russian regions that have experienced a large amount of in-migration from other republics. Unfortunately, Soviet official statistics do not include data on the ethnic affiliation of migrants. But available data

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⁵ A recent exception is the age-specific fertility data published by Bondarskaia and Darskii (1988). Similar data were published earlier by Karakhanov (1983). We have also estimated total fertility rates and infant mortality rates of the titular nationalities of the six Soviet Moslem republics (Anderson, Silver, and Liu, 1989).

⁶ Kingkade (1986) reports that between 1970 and 1985, the number of emigrants from the USSR in the three nationalities were: Jews -- 264,451; Germans -- 70,777; Armenians -- 17,846.

permit us to estimate indirectly the impact of in-migration of Russians on the ethnic composition of the non-Russian regions.

Assimilation. Assimilation is another component of the changing ethnic composition of the population. No official data or estimates of assimilation have been published in the USSR.' Soviet censuses gather information on the self-identified nationality of the population on the census date but do not ask whether individuals previously identified with a different nationality or whether their parents belonged to another nationality. We are aware of only one serious attempt to measure the extent of assimilation of non-Russian ethnic groups (Anderson and Silver, 1983). Between 1959 and 1970, Russians were estimated to have gained 600 thousand people aged 11-49 in 1970 due to assimilation -- changing ethnic self-identification of non-Russians -- since 1959. This amounts to about 1% of the number of 11-49 yearold Russians enumerated in the 1970 census.

Because age data have not been published by nationality from the 1979 and 1989 censuses, the estimation procedure used earlier cannot be replicated for more recent dates. Thus, it is difficult to take assimilation systematically into account as a factor affecting the ethnic composition of the Soviet Union in recent decades. But it is important to be aware of this source of change, especially for many of the smaller and middle-sized nationalities, some of which have suffered declines in absolute population size between censuses (not due to emigration, excess mortality, or low fertility). Some of the larger nationalities, especially Ukrainians and Belorussians, also appear to have suffered moderate losses due to assimilation, though not as large as some people have supposed.

Another aspect of assimilation, which does not strictly affect the *ethnic* composition of the population, is language. "Native language" is an important ethnic marker, closely tied to an individual's ethnic self-concept, yet also distinct from it. For most people, a change in native language is a fundamental, though not definitive, indication of change in ethnic selfconcept, fairly easily followed by ethnic reidentification. "Second language," on the other hand, appears in general to be not as fully imbued with the emotional component of ethnic identity. Whether non-Russians learn Russian as a second language depends heavily on more pragmatic considerations: the availability of schools in Russian and the non-Russian language, and the extent of contact between Russians and non-Russians both in the residential, work, and day-to-day activities settings and during military service. Thus, both for Russians and non-Russians living in non-Russian areas, the extent of bilingualism indicates the degree of mutual accommodation of groups. The extent of accommodation is not only due to attitudes and values; it also reflects practical incentives and opportunities to learn the other language. But in contrast to change in native language, learning a second language does not necessarily connote a serious change in *ethnic* self-concept.⁸

Mortality. Differential mortality also affects the ethnic composition of the population, although in the case of Soviet nationalities and the composition of Soviet regions, the effect is much less than that of differential fertility and migration. As noted above, the Soviet government has published virtually no data on mortality by ethnic group. Data for regions are an imperfect substitute and probably understate ethnic differences in general, because regions are not ethnically homogeneous. Also, Soviet mortality data are subject to substantial error (Anderson and Silver, 1986b, 1989; Dmitrieva and Andreev, 1987; Sinel'nikov, 1988). Although regional comparisons of indicators such as infant mortality rates and life expectancy at birth can show large differences in the overall health conditions of the population, use of Soviet regional mortality schedules to measure or to project the mortality component of

⁸ For elaboration of the arguments in this paragraph, see Silver (1974a, 1976, 1978b) and Anderson and Silver (1983, 1985b).

⁷ The closest approximation to such estimates is an unusual recent article by the director of the demography department of the Scientific Research Institute of the USSR State Committee on Statistics (Volkov, 1989), which examines the dynamics of ethnic intermarriage based on census data from 1959, 1970, and 1979.

population change would be extremely problematic even if the data were meant to represent ethnic groups rather than regions. Indirect estimation of mortality rates from age distributions in successive Soviet censuses is also risky, because a major source of the error in mortality data appears to be age overstatement in the censuses (Garson, 1987). In any case, age distributions by nationality have not been published since 1970, and even in 1970 the age data by nationality were not published by sex.

Fertility. Fertility differences are a major source of the changing ethnic composition of the Soviet population as a whole and by region. Some data on fertility by ethnic groups have been published for selected years (Bondarskaia and Darskii, 1988). Soviet fertility data are also subject to considerable error, due to underregistration of births (Coale, Anderson, Härm, 1979; Anderson and Silver, 1985a, 1986b, 1988; Anderson, Silver, Liu, 1989). The most severe underregistration occurs in Soviet Central Asia (Coale, Anderson, and Härm, 1979). For some purposes, it is safer to infer birth rates from census counts than from vital registration figures. Census counts of young children are also subject to error, however. In the 1959, 1970, and 1979 Soviet censuses, approximately 3 to 4% of preschool children were not counted (Anderson and Silver, 1985a; Kingkade, 1985).

The foregoing discussion of the components of population change indicates some of the data limitations on the study of the ethnic demography of the Soviet Union. The increasing openness of Soviet official statistics since 1986 has helped to alleviate the limitations. To date, however, very little new data on ethnic groups have appeared, and we even lack some fundamental indicators from earlier years, such as age distributions by nationality and by sex from the 1970 and 1979 Soviet censuses. Perhaps the publication of results of the 1989 Soviet census will improve the situation.

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Available data do allow us to study many aspects of change in the ethnic composition of the Soviet population, including the two most important ones. Fertility is the component that contributes most strongly to the changing ethnic composition of the Soviet population as a whole. Fertility and migration together account for most of the change in the ethnic composition of the population by region. Fertility is the most important factor in the Asiatic parts of the Soviet Union; migration is the most important in the European parts.

Data and Definitions

The main sources of data for this study are the Soviet censuses of 1959, 1970, 1979, and 1989. Additional data come from vital statistics, particularly on births and deaths. None of these sources is infallible. We have shown systematic patterns of error Soviet census and vital statistics data, almost all of which are the result of administrative difficulties in assuring accurate and complete counts of the population and of vital events, not of deliberate manipulation of the data (Anderson and Silver, 1985a, 1986b, 1988, 1989; Silver, 1986).

The data that we use from the 1959 and 1970 Soviet censuses are for the "present" (*nalichnoe*) population; the data for 1979 and 1989 are for the "permanent" (*postoiannoe*) population, which is slightly smaller for the USSR as a whole. The Soviet central statistical office has changed its method of reporting on population between censuses.⁹

⁹ For further discussion of the differences between the present and the permanent population, see Anderson and Silver (1985c). There are some implications of these differences for our analysis. The urban permanent population is always smaller than the urban present population, and the permanent population of Russians and members of other non-indigenous nationalities in non-Russian areas is always smaller than the present population of these groups. The change from a present population basis to a permanent population basis thus will tend to depress the urban population in 1979 and will depress the Russian population in 1979, compared to 1970, in the non-Russian republics. We think that this is not a major source of estimated changes in the proportion of the non-Russian republic populations who are Russians, but this should be kept in mind.

Our discussion of regional patterns will focus on the fifteen union republics, and on the titular nationality of the republic.¹⁰ We shall sometimes group the republics by region, using conventional categories: (1) Baltic (Estonia, Latvia, Lithuania), (2) West (Belorussia, Moldavia, Ukraine), (3) Russia (RSFSR), (4) Transcaucasia (Armenia, Azerbaidzhan, Georgia), and (5) Central Asia (Kirgizia, Tadzhikistan, Turkmenistan, Uzbekistan) and Kazakhstan.¹¹ We shall refer to the Baltic, West, and RSFSR together as "European," and to Transcaucasia, Central Asia, and Kazakhstan as "non-European."¹²

Soviet censuses ask people to name their nationality (in Russian, natsional'nost').¹³ The answers are supposed to reflect the individual's subjective ethnic identity or affiliation. All people in the census have a "nationality" -- which is meant as an ethnic designation, not one of citizenship.¹⁴ It is possible for a person to name any nationality that he or she chooses as a census nationality, and therefore it is also possible to change self-designated nationality between census dates. We refer to such a change as "ethnic reidentification."

It is important to keep in mind also that the Soviet statistical office sometimes changes its procedures for identifying and labelling ethnic groups, and for this reason that the population totals by nationality can sometimes be volatile from one census to the next. As an illustration, no separate number of "Crimean Tatars" was listed in the 1959, 1970, or 1979 Soviet census reports. Instead, Crimean Tatars appear to have been lumped with the more general category "Tatars." Preliminary data from the 1989 census, however, report the number of "Crimean Tatars" for both 1979 (132,272) and 1989 (268,739), while the reported number of "Tatars" in 1979 is reduced from the previously reported figure by the exact number of reported "Crimean Tatars" in 1979. Two things that are important to note about the new figures are that they mark the first time since the 1926 census that an official count of the Crimean Tatars has been reported in the Soviet Union and that the doubling of the reported number of Crimean Tatars between 1979 and 1989 probably reflects a substantial gain through "ethnic reidentification" -- not simply through natural increase of Crimean Tatars.¹⁵

¹⁰ Other administrative-territorial units below the level of union republic are also nationality territories that are the traditional homelands and titular areas of particular ethnic groups. These include autonomous republics, autonomous provinces, and autonomous districts. In this paper we shall deal primarily with the fifteen "union republic" nationalities.

¹¹Some scholars think that Kazakhstan should not be considered part of Central Asia, since it lies primarily in the Steppe zone. The Kazakhs, however, have close historical and cultural links to the titular nationalities of Central Asia, and the Kirgiz language is very similar to the Kazakh language.

¹² This, too, is more a matter of verbal convention than good geography, since much of the RSFSR (beyond the Urals) lies in Asia. Also note that the distinction between European and non-European union republics is not identical to a distinction between those republics in which the traditional religion of the titular nationality in not Moslem and those in which the traditional religion of the titular nationality is Moslem; Armenia and Georgia are non-European union republics, but Armenians and Georgians are traditionally Christian.

¹³ Natsional'nost' was the term used in the Soviet censuses of 1939, 1959, 1970, 1979, and 1989. In the 1926 census, the term narodnost' ("people") was used, purportedly in the interest of obtaining a more complete and accurate picture of the range of ethnic affiliations. For further discussion, see Silver (1986).

¹⁴ Unlike the censuses in Yugoslavia, which allow designation of a category "Yugoslav," Soviet censuses do not provide for a "Soviet" nationality.

¹⁵ This does not mean that non-Crimean Tatars changed their ethnic self-identification to Crimean Tatar. More likely, it means that people with Crimean Tatar ethnic background were (continued...) Most Soviet citizens (age 16 or over) have an internal passport that also lists their nationality. Also, other identity papers and official records, such as school records, military records, and work records, list the individual's nationality. Unlike the "subjective" nationality that the census is supposed to record, this is an "official" nationality, presumably based on the individual's ethnic heritage. The rules state that an individual may choose as his or her nationality for the internal passport the nationality of either one of the parents, and that once nationality has been determined in this way, it cannot be changed (for further discussion, see Silver, 1986). In principle, it is possible for an individual's subjective nationality (such as on the census) to differ from his or her official nationality. Census enumerators are not supposed to check identity papers to establish the nationality of respondents. We are aware of no studies published in the USSR that examine the empirical relation between these two aspects of nationality group membership.¹⁶

All Soviet censuses have also ascertained the individual's "native language" (in Russian, rodnoi iazyk). This phenomenon, too, is subjective. Census respondents are not given a test of language ability at the doorstep. Although "native language" is supposed to register the language that people know best, survey research conducted in the USSR shows that sometimes an individual does not know how to speak his or her "native language." For this reason, "native language" may be more a marker of ethnic background than of language use or language preference.

The Soviet censuses of 1970, 1979, and 1989, also asked people what "other language of the peoples of the USSR" they could "freely command." Although the term "freely command" is supposed to be equivalent to "freely converse," no test of language competence is given. The question was added to the censuses primarily as a way to find out how many non-Russians knew the Russian language as a second language, that is, were bilingual (Silver, 1975; 1986).

Perhaps as a result of this special purpose of the second language question, the answers appear to be unstable. Between 1970 and 1979, the percentage of Estonians who claimed Russian as a second language declined from 29 to 24.¹⁷ This improbable result apparently reflected a popular referendum of attitudes toward the political leadership of the republic.¹⁸ A similar improbable shift occurred for Lithuanians between 1979 and 1989: the percentage who claimed to freely command Russian as a second language dropped from 52.1 to 37.9 (it had been 35.9% in 1970). In the 1970-1979 intercensal period, the percentage of Uzbeks who claimed Russian as a second language rose sharply from 14 to 49. This rise, too, is improbable, and could reflect the fact that in 1979 census enumerators were encouraged to be very

¹⁵(...continued)

¹⁶ Kozlov (1969, 1982) has proposed that the existence of an official nationality on the internal passport and other documents constrains the shifting of self-identified nationality.

¹⁷ It increased to 34 percent in 1989.

¹⁸ The interpretation that we have heard in Estonia is that the 1979 census occurred shortly after a new First Secretary of the Communist Party of the Estonian SSR was installed. This First Secretary was regarded by many Estonians as too Russified; their responses to the census question on second language thus represented a covert political protest.

more likely to call themselves Crimean Tatars in the 1989 census than in the 1979 census. This would reflect the more favorable climate for claiming such an affiliation in 1989 than in 1979. A similar trend is apparent for the Vepps (who increased by 65 percent between 1979 and 1989), Mountain Jews (who more than doubled), Georgian Jews (up by 91 percent), and Turks (who more than doubled). The "Turks" were most likely Meskhetian Turks, who have resided primarily in Uzbekistan and Kazakhstan after being deported there during World War II. The newly published figures for the Turks may represent the first official tally of Meskhetian Turks in any Soviet census.

generous in listing knowledge of Russian as a second language.¹⁹ This percentage dropped to a more probable figure of 23.8 in 1989.

Analysis

The Soviet Union as a Whole

Table 1 lists the population sizes of more than 100 nationalities, grouped by the official status of the nationality in the Soviet federal system. To simplify the presentation, we also classify the nationalities into four subgroups -- Russians, non-Russian Slavs, other non-Moslems, and Moslems. Table 1 also shows how each group was classified.

Figure 1 shows the population in each of the four subgroups as of the Soviet censuses of 1959, 1970, 1979, and 1989. Each subgroup has grown in every intercensal interval. Nationalities within each of the groups differ in their rates of growth. A few nationalities have experienced negative growth -- due to emigration (the primary explanation for the Jews) or assimilation (the primary explanation for the Mordvinians and Karelians and also perhaps the Poles) as well as to low fertility.

Figure 2 shows the proportion of the total Soviet population that each of the four subgroups comprised at each of the census dates. Although all four subgroups increased in absolute size over time, all except Moslems declined as a proportion of the Soviet population.

Figure 3 shows the average annual growth rates of each of the four subgroups for each of the three intercensal periods.²⁰ The growth rate of each subgroup was lower in later intercensal intervals than in earlier ones. The decline in the growth rate of Russians in the three intercensal periods is consistent with an increase in their population doubling time from 62 years, to 99 years, to 128 years; the decline in the growth rate of Moslems is consistent with an increase in their population doubling time from 22 years, to 28 years, to 29 years. Clearly, however, the growth rate of Moslems far exceeded that of the other three groups during all three intercensal periods.

Figure 4 shows a projection of the size of the Soviet population as a whole and each of the four subgroups if each group maintained its 1979-89 annual growth rate indefinitely into the future. The population given in 1979 and 1989 is as reported in the censuses. The populations in future years are projections. Although the growth rates of each group will certainly change, this type of exercise is useful for examining the implications of existing differentials.²¹ Under the assumption of the maintenance of the 1979-89 growth rates, the number of Moslems would exceed the number of Russians by the year 2066. Clearly, this

¹⁹ This is, of course, speculative. The absence of age-specific data on native and second language from the 1979 census precludes the exploration of alternative explanations of the patterns of change in language between 1970 and 1979.

²⁰ An average annual growth rate assumes exponential growth between two dates, calculated according the formula $P_2 = e^{rt} P_1$, where P_2 is the population at Time 2, e is the is e is base of the natural logarithm, r is the average annual rate of growth, t is the number of years between Time 1 and Time 2, and P_1 is the population at Time 1. A population growing at a rate of 1% per year would double in 69 years, a population growing at 2% would double in 35 years; and a population growing at 3% would double in 23 years.

²¹ The growth rates are a product of each of the components of change mentioned earlier as well as of the age structure of the population. We are not attempting to capture the effects of all of these factors, nor to predict the course of demographic change, but only to highlight the implications of the recent overall growth rates for the changing composition of the Soviet population.

implies a very different future ethnic composition of the Soviet population than has been true until now.

The projected changes in the ethnic composition of the Soviet Union as a whole are clearer in Figure 5, which shows the projected proportion of the total Soviet population comprised of Russians, all Slavs, and Moslems, assuming continuation of the 1979-89 growth rates of each group. In that situation, Russians would cease to be a majority of the Soviet population by the year 1994, the Soviet Union would cease to be a predominantly Slavie country by 2051, Moslems would outnumber Slavs in the USSR by 2057, and Moslems would be a majority of the Soviet population by 2066.

As noted, these are extrapolations from the 1979-89 rates of growth of the different population segments. They are not meant as predictions. If we had reliable nationalityspecific data on fertility, mortality, assimilation, and age distributions for recent dates, we could make cohort component projections. By estimating fertility, mortality, and age distributions for nationalities, Kingkade (1986, 1989) has made cohort component projections under a variety of assumptions. Under the set of assumptions that Kingkade considers the most likely (his median variant), Russians would lose their majority status very early in the 1990s.

There are three main differences between our approach and Kingkade's approach to projecting the population of Soviet subgroups. The first is data availability. Kingkade did not have data from the 1989 Soviet census to work with when he made his estimates. The second reason is methodological. Kingkade's method takes into account information about the age structure of separate nationalities, as well as assumptions about age-specific fertility and mortality for these nationalities, and how they will change over time. Our method extrapolates from recent population growth rates (by groups of nationalities), not from the demographic components. In principle, especially for longer-term predictions of population growth, use of information on age structure is important. Given the current limited information about the age structure of Soviet nationalities, projection from demographic components is difficult and requires additional assumptions.

A third difference between Kingkade's and our approaches is the assumption made about assimilation. Kingkade makes no assumption about the growth in the number of Russians due to assimilation. We take assimilation into account implicitly, because the growth rate of Russians between 1979 and 1989 reflects the consequences of all four components described earlier: fertility, mortality, emigration, and assimilation (ethnic reidentification).

In an earlier paper, based on the 1959 and 1970 Soviet censuses, we projected that ... if Russians were not gaining through reidentification, they would decline to only half of the Soviet population in 1994; because they are gaining through reidentification, they will not decline to half of the Soviet population until 2003 -- nine years later (Anderson and Silver, 1983; 480).

This projection did not take into account changes in population growth rates between 1959-70 and later censuses. But we think the effect of assimilation must be taken into account in projections of the ethnic composition of the Soviet Union.

The recent rise in ethnic awareness and assertiveness among the non-Russian nationalities could affect assimilation rates in two ways. Both involve the changing relative attractiveness of different ethnic self-designations. First, the propensity of members of some non-Russian groups to reidentify as Russians could have slowed down or stopped. In the recent past, the groups that were changing most rapidly to Russians were non-Russians who were of Orthodox traditional religion and whose titular areas in the Soviet federation were at a lower status than that of union republic.²² Also, non-Russian Slavs, though not showing

²² See Anderson (1979) and Anderson and Silver (1983). Other historical factors help to account for this (Anderson and Silver, 1985b).

an especially high *rate* of reidentification to Russian, contributed more than half of the estimated total *number* of ethnic reidentifiers between 1959 and 1970 (Anderson and Silver, 1983). In addition, the children of non-Russians who married Russians living outside of the titular area of nationality of the non-Russian spouse were quite likely to choose Russian as their nationality on their internal passport -- and presumably also, in the census.²³

A second way that the rise of ethnic self-awareness of non-Russians could affect assimilation rates is that many individuals who in the 1979 census called themselves Russians could have identified with a different nationality in 1989. A large pool of people were good candidates for such a step. Persons who had previously switched from a non-Russian selflabel to Russian (between 1959 or 1970 and 1979) could have switched back -- especially if they retained knowledge of the language of their former nationality.

In the context of the census conducted in January 1989, it is possible that Russians would experience some net population loss as a result of a reversal of historical tendencies toward assimilation. Had the latest census been scheduled for January 1990 rather than 1989, it is even more likely that increased ethnic self-awareness among such groups as the Ukrainians -- which found expression in large public demonstrations early in 1989 but after the mid-January census date -- could have cut further into the size of the Russian majority.

The shifting future ethnic balance of the Soviet population has implications for many aspects of social welfare policy, regional development strategies, manpower policy, and language and cultural policy.²⁴ The reduction of Russians to a numerical minority of the population of the USSR would also be especially important as a political event, since the USSR would then become a country of minorities. Based on their shared history and culture, the other major Slavic nationalities (Belorussians and Ukrainians) are often perceived as a part of the "Slavic majority" of the USSR, and they often comprise a significant part of the "Russian-speaking" population in non-Russian parts of the Soviet Union. But the greater ethnic assertiveness of non-Russian Slavs, accompanied by the reduction of Russians to less than half of the Soviet population, could sharpen perceptions of the differences in the backgrounds and orientations of the Slavic groups.

The Union Republics

Overall Population Growth Rates. Although the changes in the ethnic composition of the Soviet population as a whole are interesting, changes in particular regions are probably more salient to most Soviet citizens. Figure 6 shows the population of each of the fifteen Soviet union republics at each of the four most recent Soviet census dates. Every republic has grown in size in each intercensal period. The republics differ greatly in size, with the RSFSR being over twice as large as the Ukrainian SSR, the second largest union republic. In 1989, the three Baltic republics -- Estonia, Latvia, and Lithuania -- together comprised less than 3% of the total Soviet population.

Differences in Growth by Nationality within Republics. None of the republics is ethnically homogeneous. Figure 7 shows the proportion of each republic's population comprised of that republic's titular nationality in 1959, 1970, 1979, and 1989. In 1989, this proportion ranged from a low of .40 for Kazakhs in Kazakhstan to a high of .93 for Armenians in Armenia. In all of the non-European republics, the proportion of the population from the titular nationality has increased in each successive census. In all of the European

²³ See Gantskaia and Terent'eva (1965) and Terent'eva (1969). In contrast, in a majority of cases when a Russian and a non-Russian married inside the titular area of ethnic group of the non-Russian spouse, the children were likely to choose the nationality of the non-Russian parent as their passport nationality (Ievstigneev, 1971, 1972).

²⁴ For commentary on the manpower and regional development issues, see especially Feshbach and Rapawy (1973, 1976) and Rapawy and Baldwin (1982).

republics except Lithuania, the proportion of the population from the titular nationality declined in each intercensal period. The proportion of Lithuania comprised of Lithuanians increased between 1959 and 1970 and then declined slightly over the 1970-1979 and 1979-89 intercensal periods. Estonia and Latvia show especially rapid declines in the proportion of their populations comprised of the titular nationality.

In most cases, the bulk of the population of a republic that is not from the titular nationality is comprised of Russians. In 1989, the titular nationality and Russians together constituted 94.8% of the population of Armenia (the highest percentage among union republics), 94.7% of the population of the Ukraine, and 69.8% of the population of Tadzhikistan (the lowest percentage among union republics). A full analysis of ethnic diversity and change would examine all of the Soviet nationality subgroups in various Soviet regions. For simplicity, this paper concentrates on the behavior of the titular nationality of that republic and of Russians in that republic.

Figure 8 shows the proportion of the population of each republic comprised of Russians in 1959, 1970, 1979, and 1989. Among the non-Russian republics in 1989, this proportion ranged from a low of .02 in Armenia to a high of .38 in Kazakhstan. In Kazakhstan at the first three census dates, Russians outnumbered Kazakhs. In 1989, however, the number of Kazakhs (6,531,921) overtook the number of Russians (6,226,400). Russians have not outnumbered the titular nationality in any other non-Russian union republic at any of the four census dates.

Figure 9 shows the average annual growth rates of the total population of each republic for the three recent intercensal periods. In every republic, the growth rates declined from 1959-70 to 1970-79. In all republics except the Russian Republic and Georgia, growth rates also declined from 1970-79 to 1979-89.

Republic growth rates are the result of a combination of often very different growth rates for the nationalities in the republic. Figure 10 shows the average annual intercensal growth rate for the titular nationality in its own republic in 1959-70, 1970-79, and 1979-89. Figure 11 shows comparable information for Russians within union republics.

The titular nationalities of the union republics experienced positive growth in every republic in all three intercensal periods. However, the annual intercensal growth rate of the titular nationalities in 1979-89 ranged from a low of .00162 for Estonians in Estonia (consistent with a population doubling time of 426 years), to a high of .03480 for Tadzhiks in Tadzhikistan (consistent with a population doubling time of 20 years).

In the first two intercensal periods, the Russian population of every republic except Georgia and Azerbaidzhan experienced a positive growth rate. In the latest intercensal period -- 1979-89 -- the Russian growth rate was negative in six republics: the three Transcaucasian republics, as well as Uzbekistan, Tadzhikistan, and Turkmenistan. Moreover, in every non-Russian republic, the growth rate of Russians declined between 1979-89 compared with the previous intercensal period. As will be seen, the negative growth rates of Russians in Transcaucasia and parts of Central Asia in the most recent intercensal period were caused by outmigration of Russians.

In 1979-89, the growth rate of Russians ranged from a high of .01676 in Belorussia (consistent with a population doubling time of 41 years) to a low of -.03101 in Armenia (consistent with the population being reduced by 50% in 22 years). This is an astonishingly high out-migration of Russians from Armenia.

Some implications of the differential growth rates by nationality for the future ethnic mix of Soviet republics are suggested in Figure 12. Figure 12 shows the growth rate of the titular nationality minus the growth rate of Russians in the given republic. A positive number means that the population of the titular nationality is increasing more rapidly than that of Russians in the republic; a negative number means that the number of Russians is increasing more rapidly than the titular nationality in the given republic.

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In every non-European republic, the titular nationality has grown more rapidly than Russians in all three intercensal periods. The situation is very different in the European republics. In 1959-70, Russians grew more rapidly than the titular nationality in every European republic except Lithuania and Moldavia; in 1970-79, and 1979-89, the Russian population grew more rapidly than the titular nationality in every European republic. Thus, the non-European republics have become less Russianized over time, while the European ones have become more Russianized.

Table 2 shows the proportion of the population of each republic in 1989 comprised of the titular nationality and of Russians (columns 1 and 2). Since all of the European republics had a larger proportion of their population from the titular nationality than Russians in 1989, while they had a higher growth rate of Russians than the titular nationality in 1979-89, a continuation of the 1979-89 growth rates would eventually lead to Russians outnumbering the titular nationality in every European republic. Table 2 shows how many years after 1989 would be needed for this to happen, as well as the projected year in which the number of Russians in a given republic would equal the number of members of the titular nationality.

Note also that although in 1979 Russians outnumbered Kazakhs in Kazakhstan, the number of Kazakhs overtook the number of Russians before the 1989 census.

Again it is important to keep in mind that these figures are projections from past trends, not predictions about the future. In several non-Russian republics in the last two years, local political leaders have initiated steps that may slow and perhaps reverse the process of in-migration of Russians and members of other non-titular nationalities. In addition, as we shall see, there is evidence that well before Mikhail Gorbachev became General Secretary of the Communist Party, the pace of in-migration of Russians to non-Russian areas had slowed down.

The Effects of Natural Increase. The changing ethnic composition of Soviet republics results primarily from a combination of differential fertility and differential net inmigration. We examine fertility first. Figure 13 shows the total fertility rate (TFR) of the Soviet Union as a whole and of Soviet republics in 1958-59, 1969-70, 1978-79, and 1986-87.²⁵ In Central Asia, the TFR has declined since 1969-70. In the European republics, the TFR has been lower than in the non-European republics, but the TFR increased in all the European republics except Belorussia between 1978-79 and 1986-87.

As with the growth rate, the TFR in a republic is a result of the different fertility levels of the various nationalities in the republic. Figure 14 shows the TFR of the titular nationality of each republic in 1958-59, 1969-70, and 1978-79 as reported by Bondarskaia and Darskii (1988).²⁶

We do not have direct information on the TFR of Russians within Soviet republics. We wanted an indication of the size of the gap between the fertility level of the titular nationality of a given republic and the fertility level of Russians in that republic. An approximation is shown in Figure 15, which depicts the TFR of the titular nationality in a given republic minus the TFR of Russians in the RSFSR, as reported by Bondarskaia and Darskii (1988). According to the estimates in Figure 15, in 1969-70 and in 1978-79 in every republic the TFR of the titular nationality exceeded that of Russians, although in every republic except Latvia, the size of the differential decreased between 1969-70 and 1978-79.

²⁵ The total fertility rate (TFR) is the number of children that a woman would have in her reproductive life if she followed a given age-specific fertility schedule, such as that of all women in a given year.

²⁶ A reading of the age-specific fertility schedules that Bondarskaia and Darskii (1988) report strongly suggests that the authors transposed age-specific mortality figures above age 30 for the Kirgiz and Tadzhiks in 1978-79. The data in Figure 14 correct this apparent error.

The fertility of the titular nationality in Estonia, Latvia, the Ukraine, and Georgia was lower than that of Russians in the RSFSR in 1958-59. That situation had reversed by 1969-70, and remained the same in 1978-79. Hence, it is not likely that fertility differences contributed to the increasing Russianization of Estonia and Latvia over time; in fact, higher fertility of the titular nationality probably slowed that trend.

The Effects of Migration. We next examine the effects of migration on the ethnic composition of republics. Since do not have any direct information on migration by ethnic groups, we use an indirect approach.

We use a variation on the residual approach to the estimation of net migration. In the residual approach, the growth of a group within a geographic area between two dates is calculated. Then the growth that would have occurred due to natural increase alone is calculated. The difference between the actual increase in the group and the predicted increase due to natural increase alone is an estimate of the net migration of the group into the area between the two dates.

We cannot fully implement the residual approach, however, because we do not have information on the natural increase (crude birth rate minus crude death rate) of nationalities in the Soviet Union as a whole or within particular geographic areas. Therefore, we must estimate the contribution of natural increase to the growth of ethnic groups within geographic areas.

As mentioned earlier, with few exceptions Soviet ethnic groups experienced very little international migration since 1959. Hence, in the Soviet Union as a whole, the change in the size of Soviet ethnic groups was mainly the result of natural increase.²⁷ We use this fact to estimate the growth that would have occurred to an ethnic group within a republic due to natural increase alone.

We divide the number of members of an ethnic group in the Soviet Union as a whole at the second census date (such as 1970) by the number of members of the same ethnic group in the Soviet Union as a whole at the first census date (such as 1959). We then multiply this ratio by the size of the same ethnic group in a given republic at the first census date to obtain the predicted size of that ethnic group in that republic at the second date due to the effects of natural increase. We subtract the predicted size of the group at the second date from reported size of the ethnic group at the second date to obtain an estimate of net migration of the group into the republic between the two dates.²⁸

Figure 16 shows the estimated effects of net migration of the titular nationality of republics between 1959 and 1970, 1970 and 1979, and 1979 and 1989. The estimated amount of net migration between two census dates is divided by the size of the titular nationality in its own republic at the first date. Therefore, what is graphed in Figure 16 is the proportion

²⁷ There are two other sources of the difference in the number of people of a given nationality reported in successive censuses: differential undercount and assimilation. We cannot make corrections for either of these factors. We have no evidence on which to base estimates of differential census undercount by nationality. On the other hand, in principle it would be possible to take assimilation into account, at least between 1959 and 1970, for which we have made estimates (Anderson and Silver, 1983). But these estimates could be made only for the population of the nationality in the Soviet Union as a whole, whereas we would like to know the amount of assimilation within a given republic.

²⁸ This is similar to the approach used in Silver (1983). These estimates will attribute too much of the growth in a republic to natural increase and too little to net migration if the natural increase of the group in the republic is less than that of the nationality elsewhere in the Soviet Union. This will generally be true for Russians, since the fertility of Russians outside of the Russian Republic will generally be lower than that of Russians in the Russian Republic.

by which the titular nationality would have increased or decreased between censuses in its own republic due to its own migration into and out of that republic.

The most striking result in Figure 16 is the large extent of migration of Armenians into Armenia in the first two intercensal periods. We estimate that the number of Armenians in Armenia would have increased by 15% between 1959 and 1970 due to in-migration of Armenians. In 1959-70, part of the in-migration could have involved the continuation of repatriation of Armenians from abroad. But it is likely that the bulk of the Armenian inmigrants to Armenia in both intercensal periods came from other parts of the Soviet Union, probably mainly from Georgia and Azerbaidzhan, which experienced extremely low growth in the number of Armenian inhabitants between 1959 and 1970 and absolute declines in the number of Armenian inhabitants between 1970 and 1979 as well as between 1979 and 1989.²⁹

Other nationalities also migrated into their titular republics, although at a less dramatic level than for Armenians. There was considerable net migration of Estonians into Estonia, especially between 1959 and 1970. This was largely due to return of Estonians from Siberia. Members of various Central Asian nationalities also tended to move back to their home republics, especially between 1959 and 1970. But this tendency reversed in many republics between 1979 and 1989. For example, whereas in the 1959-70 and 1970-79 intercensal periods Tadzhiks tended to resettle into Tadzhikistan, between 1979 and 1989 more Tadzhiks appear to have migrated out of Tadzhikistan than into it.³⁰

Figure 17 shows similar information for the net migration of Russians into republics between censuses. Migration of Russians out of the Russian Republic has decreased in each successive census interval. Between 1979 and 1989, the net migration of Russians from the RSFSR was close to zero. But there was still considerable movement of Russians into and out of other republics during all three intercensal intervals.

There was substantial net out-migration of Russians from Azerbaidzhan and Georgia in all three intercensal periods, and from all three Transcaucasian republics in the last intercensal period. In addition, although more Russians migrated into than out of Kazakhstan and the Central Asian republics in both the 1959-70 and 1970-79 periods, their net migration into Central Asia was much smaller in the second period and then turned negative in the last ten years.

Russians experienced net in-migration to all of the non-Russian European republics in the 1959-70 and 1970-79 intercensal periods. However, in every European republic except Lithuania, the level of Russian in-migration decreased between the two periods, and in 1979-89, it further decreased in each of those republics. Moldavia experienced net out-migration of Russians in the latest intercensal period. Lithuania was the only non-Russian republic to experience a larger net in-migration of Russians between 1979 and 1989 than in the previous intercensal period. In contrast, in Estonia and Latvia, the in-migration of Russians slowed in each of the last two intercensal periods. While in 1970-79, the level of Russian in-migration was higher to Estonia than to any other non-Russian republic, in 1979-89 it was highest to Belorussia (Estonia was second).

²⁹ For further discussion, see Silver (1983).

³⁰ Our use of the residual method of estimating net migration is subject to error. It is possible that some of the results in Figure 16 are artifacts of data improvement. For example, if Tadzhiks living in the Tadzhik SSR were undercounted in the 1959 census but counted more or less completely in 1970, they could appear to have been migrating into Tadzhikistan when they were not in fact doing so. In addition, if there is a large difference between the rate of natural increase of a given nationality within its titular area and the rate of natural increase outside the area (and if a substantial number of persons of the given nationality live outside the titular area), the residual method might lead to an over- or underestimate of the net migration of that nationality into its own republic. The Relative Contribution of Natural Increase and Migration. Figure 18 shows the estimated number of people added to the population of each republic between census dates due to four factors: (1) natural increase of the titular nationality, (2) net in-migration of the titular nationality, (3) natural increase of Russians, and (4) net in-migration of Russians. Panel A shows the results for 1959-70, Panel B for 1970-79, and Panel C for 1979-89. It is striking that in Kazakhstan, the number of Russian net in-migrants decreased from 1,028,733 in 1959-70 to 110,534 in 1970-79.

Figure 18 clearly reveals the relative importance of the four sources of change in the number of members of the titular nationality and Russians for large republics such as the Ukraine and Uzbekistan. In both cases, the largest absolute contribution to the population of the republic is the natural increase of the titular nationality. The same is true of most other non-Russian republics. However, for small republics, such as Estonia or Moldavia, the impact of these various sources of population change can be assessed more clearly if considered relative to the size of the republic.

Accordingly, Figure 19 shows the information from Figure 18, but in each case the estimated contribution of each factor to the change in the republic's population is divided by the total population of the republic at the first census date. Thus, although there were only an estimated 63,024 Russian net in-migrants to Estonia between 1959 and 1970, Russian inmigration in that period by itself would have resulted in an increase in the total population of Estonia by 5%.

It is clear from Figure 19 that in all three intercensal periods the major source of population increase in every republic except Estonia and Latvia was natural increase of the titular nationality. In Estonia and Latvia, in contrast, the largest source of population increase was net in-migration of Russians (except for 1979-89 in Latvia, when the largest source was the natural increase of Russians).

We have seen that the extent of Russianization of the population of various republics is very different, with Estonia and Latvia gaining in the proportion of the population that is Russian, the Transcaucasian republics becoming less Russian mainly due to out-migration of Russians, and the Central Asian republics and Kazakhstan becoming less Russian mainly due to higher fertility of the titular nationality than Russians, but partly due to decreases in Russian in-migration.

Interethnic Contact and Language Patterns

It is relevant in this context to examine briefly the extent to which members of the titular nationality and Russians live in similar settings and are able to effectively interact with each other. There are many aspects of this question. We will examine two in this paper: (1) the tendency of members of the titular nationality and Russians to reside in urban areas, and (2) the extent to which members of the titular nationality and Russians report that they know each other's languages.

Urban Residence. Figure 20 shows for the Soviet Union as a whole and for each union republic the proportion of the population that lived in urban areas at each of the four recent census dates. Every republic except Turkmenistan became more urban between 1959 and 1979. All the Central Asian republics became *less* urban between 1979 and 1989. This probably reflects the combined effect of the much higher fertility in rural areas than in urban areas, the slow pace of migration of the titular nationality from the countryside to cities, and the out-migration of Russians from the cities of Central Asia to other republics.

Figure 21 shows the proportion of the titular nationality that lived in urban areas for each republic in 1959, 1970, and 1979 (the data are not yet available for 1989).³¹ Figure 22 shows comparable information for Russians in each republic. In every republic, Russians are more likely to live in urban places than members of the titular nationality. This in itself is not surprising, since many Russians are recent migrants to the non-Russian republics, and new migrants tend to settle in urban places to take jobs in industry or trade. However, in Central Asia and Kazakhstan, the difference between Russians and the titular nationality in the tendency to live in urban places is truly striking. In 1970, Russians were a majority of the population of urban areas in Kirgizia and Kazakhstan.

Language Knowledge. Figure 23 shows the proportion of the members of the titular nationality who reported Russian as their native language in 1959, 1970, 1979, and 1989.³² In most republics, the proportions are very low. In the Ukraine and Belorussia, however, the proportions are substantial, especially in 1979 and 1989. We know that adoption of Russian as native language by a non-Russian is often a first step to that non-Russian changing his or her self-reported nationality to Russian (Anderson, 1979; Anderson and Silver, 1985b). Figure 23 thus indicates a substantial potential for ethnic reidentification of Ukrainians and Belorussians as Russians.

Figure 24 shows the proportion of the members of the titular nationality of a republic that reported Russian as *either* their native language or their second language in 1970, 1979, and 1989.³⁵ This generally can be interpreted as the proportion of the members of the titular nationality who know the Russian language reasonably well.³⁴ As mentioned earlier, however, some of the intercensal changes in this proportion, such as those in Uzbekistan, Estonia, and Lithuania, are implausible.

³¹ For 1979, the nationality distribution in rural and urban areas of union republic populations has not been published. However, the distribution of ethnically homogeneous families, by size of family, has been published for urban and rural populations of each union republic. Similar information on the rural-urban distribution of ethnically homogeneous families has been published for 1970. For 1959 and 1970, we have reported information on the urban-rural distribution of nationalities within republics. To estimate the proportion of members of the titular nationality and the proportion of Russians in each republic who lived in urban areas in 1979, we first took the proportion of members of ethnically homogeneous families of that nationality in the republic for 1970. In 1970 we divided the reported proportion for the given nationality and republic for 1970. In 1970 we divided the reported proportion urban for that nationality in that republic by the proportion from the family data. J We multiplied this ratio from 1970 by the proportion of members of that nationality in that republic in urban places in 1979 calculated from the data on families to obtain an estimate of the proportion of a given nationality in a given republic who lived in urban areas in 1979.

³² The data on the percentage who claimed Russian as their native language in 1989 are an approximation. We know the percentage of the population of each nationality that claimed their own nationality's language as native, but not the percentage of the members of a non-Russian nationality that claimed Russian as native language. We approximate the latter figure by using information from the 1979 census. We assume that of those who did not claim their own nationality's language as native, the same percentage claimed Russian as their native language in 1989 as in 1979. Similarly, we do not know what proportion of Russians in a given non-Russian republic claimed the language of the republic's titular nationality as native language. We use a similar approach to estimate this proportion.

³³ Since this is the sum of those who claimed Russian as their native language and those who claimed Russian as a second language, for 1989 we again rely on an approximation of the first value.

³⁴ We are aware that some non-Russians who claim the language of their nationality as their native language may not actually speak it well, if at all. It seems less likely, however, that a non-Russian who claims Russian as their native language will not speak it. Nonetheless, it is clear that members of the European nationalities were more likely to report knowledge of Russian than members of the non-European nationalities. Among the titular nationalities of the union republics, knowledge of Russian was most common in the Ukraine and Belorussia, and most rare in Central Asia. Kazakhs in Kazakhstan were also very likely to know the Russian language. This is probably because Kazakhs in Kazakhstan need to interact with Russians. In 1970, over half of the population of rural areas of Kazakhstan was comprised of Russians and Ukrainians.

Figure 25 shows the proportion of Russians in each republic who reported the language of the titular nationality as their native language or a second language in 1970, 1979, and 1989. Russians in Central Asia and Kazakhstan rarely knew the language of the titular nationality. Russians in Transcaucasia and in the European republics were much more likely to know the language of the titular nationality. This was especially true in the Ukraine and Belorussia. However, some of those "Russians" in the Ukraine and Belorussia who reported Ukrainian or Belorussian as second language probably had formerly identified themselves as Ukrainians or Belorussians.

That Russians in several of the non-Russian republics appear to have become more likely to claim knowledge of the titular language in successive censuses might also be a result of other factors. First, especially in recent years, it could be a result of increased pressure to use the local language. Second, it could be a result of selective migration: since many of these republics have experienced reduced Russian net in-migration, and some have experienced net Russian out-migration, it is possible that Russians who come to a non-Russian area, or who are most likely to remain there, are those who have adapted to the local culture or learned the local language.

Inspection of Figure 25 suggests that although the policies proposed in some republics of requiring knowledge of the language of the titular nationality as a prerequisite for full civil rights might be difficult to implement in the European republics, they would be virtually impossible to implement in Central Asia and Kazakhstan.

Summary and Conclusions

Soviet Union as a Whole

The impending decline of ethnic Russians to a minority within the Soviet Union will have greater political and symbolic significance than demographic significance. However, the fact that the Soviet Union could become a predominantly Moslem country shortly after the middle of the next century would have larger consequences.

Certainly, fertility and mortality of Soviet nationalities will change over time, and the projection of 1979-89 growth rates is not a prediction of the future. However, the exact pattern of fertility change, especially among traditionally Moslem groups, along with changes in the relative accommodation or isolation among nationalities, will be important in the Soviet future.

Regions

The patterns of change in the ethnic composition of Soviet regions are very diverse. While the non-European republics are becoming more homogeneous, the European republics are becoming more Russianized, though the pace of Russianization seems to have slackened in recent years. Briefly, the patterns within particular regions are as follows.

Central Asia and Kazakhstan. This region is becoming more indigenized over time. This mainly because of higher fertility of the indigenous nationalities compared to Russians, and partly a result of decreasing levels of net in-migration by Russians. Russians and the indigenous nationalities live in very different settings, and compared to other regions of the USSR, each group has very little knowledge of the other group's language.

Kazakhstan has become more indigenized, due to a combination of higher fertility of Kazakhs than Russians and large declines in the net in-migration of Russians. By 1989, this led to the Kazakhs outnumbering Russians in the republic.

Transcaucasia. This region is also becoming more indigenized over time. This is partly due to higher fertility among the indigenous population than among Russians as well as to an acceleration of Russian out-migration. In Armenia, net in-migration of Armenians, especially from Georgia and Azerbaidzhan, is also a significant factor.

Baltic. Estonia and Latvia are becoming increasingly Russianized over time, as a result of net in-migration of Russians. This is countered to some extent by fertility differentials by nationality -- higher fertility among the indigenous population than among Russians. Moreover, the level of in-migration of Russians to Estonia and Latvia has declined in the last two intercensal periods.

Lithuania has had almost no change in the proportion titular between 1959 and 1979, due to higher fertility of Lithuanians than Russians, which is offsetting in-migration of Russians. In contrast to Estonia and Latvia, however, the level of in-migration of Russians increased in each of the last two intercensal periods.

The level of knowledge by Russians and the titular nationalities of each other's languages in the Baltic is generally higher than in Central Asia and somewhat higher than in Transcaucasia.

West. In the Ukraine and Belorussia, there has been only a small decline over time in the proportion titular. This steady state is a result of natural increase of the titular nationality and the continued high proportion of the population of the republics that is titular. It is perhaps offset somewhat, however, by the tendency of the indigenous nationalities to reidentify as Russians or to migrate from the republics. In both republics, there is a substantial potential for change to Russian ethnic self-identification by members of the indigenous nationality. Also, there are higher levels of knowledge by titular nationalities of Russian and of the titular language by Russians than elsewhere in the USSR.

Moldavia also has had very little change in the proportion titular between 1959 and 1979. This has been due to substantially higher fertility of Moldavians than Russians, which counters the in-migration of Russians and others.

Analysis of Demographic Change in a Social and Political Context

In a book review published in the journal Sotsiologicheskie issledovaniia in January 1988, Ia. I. Rubin criticized Brian Silver for his explanation of the trends in migration in Transcaucasia between 1970 and 1979. Silver had concluded:

In the absence of a primary investigation of the motives of migrants, we can only speculate about the motives for the cross-migration of Armenians and Azeris. One plausible explanation is that the historic antipathy between members of the two groups has crystallized in recent years to encourage mutual avoidance and resettlement. Despite cultural policies in the Transcaucasian republics that have been aimed at reducing ethnic tension . . . an unfavorable cultural, administrative, or work environment for Armenians in Azerbaijan and for Azeris in Armenia may have encouraged resettlement to their official homelands.

Alternatively, perhaps the cross-migration in Transcaucasia has another, less nationalistically tinged explanation. Namely, the very rapid rate of urbanization of Armenia in recent years, which has advanced that republic's level of urbanization ahead of the USSR as a whole, may have created significant opportunities for urban Armenians in Georgia and Azerbaijan to move out of those republics to Armenia.... (Silver, 1983: 377-378).

Rubin commented on Silver's argument as follows:

B. Silver sees the causes of [the resettlement of Armenians and Azerbaidzhanis from neighboring republics to their own republics] in "historically formed antipathies," in the still existing mutual hostility of Caucasian peoples, which "became aggravated to such a degree that they sought to flee from one another." The farfetchedness and tendentiousness of such an explanation is partly revealed by the sovietologist himself. It is possible, he confesses, that the cause is the rapid urbanization of Armenia, in the desire of people to take on an urban way of life (Rubin, 1988: 132).

Silver's article was published in 1983, Rubin's comment was published in January 1988, and the massive outbreak of violence between Azerbaidzhanis and Armenians in Nagorno-Karabakh, Sumgait, and elsewhere occurred in February 1988. Relations between the two nationalities in Transcaucasia have remained very tense since that time.

Many scholars would agree that examination of long-term demographic trends is useful for understanding and interpreting the past. However, this example illustrates the value of examining underlying demographic processes for anticipating likely future events and problems.³⁵

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³⁵ For a similar point, see Goble (1987).

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Volkov, A. 1989. "Etnicheski smeshannye braki v SSSR: dinamika i sostav," Vestnik statistiki, No. 7: 12-22. ę 1 1.0 • TABLE 1. Nationalities by Official Territorial Status, Population Size (in thousands) in 1959, 1970, 1979, and 1989, Traditional Religiou, and Classification into Groupings Used in Analysis⁴

	Population 1959	Population 1970	Fopulation 1979	Fopulation 1989	Predominant Traditional Religion	Grouping Used in Analysis	Regional Grouping of Union
STATUS OF TITULAR AREA (IF ANY)	(000)	(000)	(000)	(000)	Religiou		Republic
UNION REPUBLIC (SSR)							
Russians	114,114	129,015	137,397	145,072	Orthodox	Slavic	RSFSR
Ukrainians	37,253	40,753	42,348	44,137	Orthodox	Slavic	West
Belorussians	7,913	9,052	9,463	10,030	Orthodox	Slavic	West
Uzbeks	6.015	9,195	12,456	16,686	Sunni Moslem	Moslem	Central Asia
Kazakhs	3,622	5,299	6,556	8,138	Sunni Moslem	Moslem	Kazakhstan
Azerbaidzhanis	2,940	4,380	5.477	6,791	Shiite Moslem	Moslem	Transcaucas
Armenians	2,787	3,559	4,151	4,627	Armen. Christian		Transcaucas
Georgians	2,692	3.245	3,571	3,983	Georgian Orth.	Other Non-Moslem	Transcaucas
Lithuanians Moldavians	2.326 2.214	2,665	2,851 2,968	3,068	Roman Catholic	Other Non-Moslem	Baltic
Latvians	1,400	2,698	1,439	3,355	Orthodox Lutheran	Other Non-Moslem Other Non-Moslem	West Baltic
Tadzhiks	1,397	2,159	2,898	4.217	Sunni Moslem	Moslem	Central Asia
Turkmenians	1,002	1,525	2,028	2,718	Sunni Moslem	Moslem	Central Asia
Estonians	989	1,007	1,020	1.027	Lutheran	Other Non-Moslem	Baltic
Kirgiz	969	1,452	1,906	2,531	Sunni Moslem	Moslem	Central Asi
Accession of the second	2464	100.0233	54 S K 4 R	CARGES.	STREAM AND STREAM	10.049-0-0001	
AUTONOMOUS REPUBLIC (ASSR)	100.5						
Tatarsb	4,765	5,931	6,185	6,646	Sunni Moslem	Moslem	
Chuvash	1,470	1,694	1,751	1,839	Orthodox	Other Non-Moslem	
Mordvinians	1,285	1,263	1,192	1,154	Orthodox	Other Non-Moslem	
Bashkirs	989	1,240	1,371	1,449	Sunni Moslem	Moslem	
(Peoples of			574.050	54 57 5			
Dagestan) ^c	944	1,365	1,657	2,072	Sunni Moslem	Moslem	
Udmurts	625	704	714	747	Orthodox	Other Non-Moslem	
Mari	504	599	622	670	Orthodox	Other Non-Moslem	
Chechens	419	613	756	958	Sunni Moslem	Moslem	
Ossetians	413	488	542	598	Sunni Moslem	Moslem	
Komi	287	322	327	345	Orthodox	Other Non-Moslem	
Buriats Yakuts	253 233	315 296	353 328	422 382	Orth./Buddhist Orthodox	Other Non-Moslem Other Non-Moslem	
Karakalpaks	173	236	303	423	Sunni Moslem	Moslem	
Karelians	167	146	138	131	Orthodox	Other Non-Moslem	
Ingush	106	158	186	238	Sunni Moslem	Moslem	
Tuvinians	100	139	166	207	Buddhist	Other Non-Moslem	
Kalmyks	106	137	147	175	Buddhist	Other Non-Moslem	₽ 11
Abkhezians	65	83	91	103	Sunni Moslem	Moslem	
AUTONOMOUS PROVINCE (AD)	13.52						
Jewsd	2,267	2,151	1,811	1,451	Jewish	Other Non-Moslem	
Kabardinians	204	280	322	395	Sunni Moslem	Moslem	
Karachai	81	113	131	156	Sunni Moslem	Moslem	
Adygei	80	100	109	125	Sunni Moslem	Moslem	
Khakasy	57	67	71	81	Orthodox	Other Non-Moslem	
Altais	45	56	60	71	Orthodox	Other Non-Moslem	5 e
Balkars	42	60	-66	89	Sunni Moslem	Moslem	
Cherkess	30	40	46	52	Sunni Moslem	Moslem	
AUTONOMOUS DISTRICT (AD)	1						
Komi-Permiaks	144	153	151	152	Orthodox	Other Non-Mosles	()
Evenks	24	25	27	PN ^e	Orth./Shamanist	Other Non-Moslen	
Nenets	23	29	30	PN	Orth./Shamanist	Other Non-Moslem	ı
Khanty	19	21	21	PN	Orth,/Shamanist	Other Non-Mosles	
Chukchi	12	14	14	PN	Orth./Shamanist		
Mansi	6	8	8	PN	Orth./Shamanist		
Koriaks	6	7	8	PN	Orth./Shamanist		
Dolgans	4	5	5	PN	Orth./Shamanist	Other Non-Mosler	a

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	Population 1959	Population 1970	Population 1979	Population 1989	Predominant Traditional Religion	Grouping Used in Analysis
ATUS OF TITULAR AREA (IF ANY)	(000)	(000)	(000)	(000)	Next 6100	
IER INDIGENOUS						
Crimean Tatars ^b			132	269	Sunni Moslem	Moslem
Gagauz	124	157	173	197	Orthodox	Other Non-Moslem
Abaza	20	25	29	34	Moslem	Moslem
Vepps	16	8	8	13	Orthodox	Other Non-Moslem
Shors	15	16	16	17	Orth./Shamanist	Other Non-Moslem
Moslem Tats	11	17	22	31	Sunni Moslem	Moslem
Talysh		4.4.9	1000	22	Sunni Moslem	Moslem
Evens	9	12	13	PN®	Orth./Shamanist	Other Non-Moslem
Nanai	8	10	11	PN	Orth. /Shamanist	Other Non-Moslem
Karaims	6	5	3	3	Jewish	Other Non-Moslem
Sel'kups	4	4	4	PN	Orth./Shamanist	Other Non-Moslem
Nivkhi	4	4	4	PN	Orth./Shamanist	Other Non-Moslem
Udins	4	6	7	9	Sunni Moslem	Moslem
Ul'chi	2	2	3	PN	Orth./Shamanist	Other Non-Moslem
Saams	2	2	2	PM	Orth./Shamanist	Other Non-Moslem
Udegei	1	1	2	PN	Orth./Shamanist	Other Non-Moslem
Itel'mens	ĩ	î	1	PN	Orth./Shamanist	Other Non-Moslem
Izhora	1	î	î	1	Orthodox	Other Non-Moslem
	1	î	î	PN		Other Non-Moslem
Kety	î	ĩ	1	PN	Orth./Shamanist	Other Non-Moslem
Orochi	1	1	1		Orth_/Shamanist	the second s
Tofa	-	1	1	PN	Sham./Moslem	Other Non-Moslem
Negidals				PN	Orth./Shamanist	Other Non-Moslem
Iukagirs	0.4	1	1	PN	Orth./Shamanist	Other Non-Moslem
Aleuts	0.4	0.4	1	PN	Orth./Shamanist	Other Non-Moslem
NINDIGENOUS						
Germans	1,620	1,846	1,936	2,036	Cath./Lutheran	Other Non-Moslem
Poles	1,380	1,168	1,151	1,126	Roman Catholic	Slavic
Bulgarians	324	351	361	379	Orthodox	Slavic
Koreans	314	358	389	437	Buddhist	Other Non-Moslem
Greekş	309	337	344	358	Orthodox	Other Non-Moslem
Turks ¹	A.A.A	3996	93	207	Sunni Moslem	Moslem
Hungarians	155	166	171	172	Roman Catholic	Other Non-Moslem
Gypsies	132	175	209	252	Christian	Other Non-Moslem
Rumanians	105	119	129	146	Orthodox	Other Non-Moslem
Uighurs	95	173	211	262	Sunni Moslem	Moslem
Kurds	59	89	116	153	Sunni Moslem	Moslem
Finns	93	85	77	67	Lutheran	Other Non-Moslem
Czechs	25	21	18	16	Roman Catholic	Slavic
Dungans	22	39	52	70	Sunni Moslem	Moslem
Assyrians	22	24	25	26	Christian	Other Non-Moslem
Iranians	21	28	31	41	Shiite Moslem	Other Non-Moslem
Chinese	26		12	11	Buddhist	Other Non-Moslem
Slovaks	15	12	9	10	Roman Catholic	Slavic
Afghans	2	4	4	9	Sunni Moslem	Moslem
Beluchi	8	13	19	29	Sunni Moslem	Moslem
Albanians	š	4	4	4	Orthodox	Other Non-Moslem
Khalkha-Mongols	2	5	3	4		A 2015 A 21 I D 10 X 1 I D 10 X 10 X 10 X 10 X
Markina Hougors	6	5	5	1	Buddhist	Other Non-Moslem

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SOURCES: Population totals are from the Soviet census at each date. Totals for 1959 and 1970 are the "present (<u>nalichnoe</u>) population." Totals for 1979 and 1989 are the "permanent" (<u>postoiannoe</u>) population. The figures for 1989 are preliminary and have not yet been published officially.

The figures for Tatars in 1959 and 1970 include all enumerated "Tatars." including Crimean Tatars. Preliminary data from the 1989 census give separate totals for "Tatars" and "Crimean Tatars" for both 1979 and 1989.

The "Dagestani" nationalities consist of a large number of groups, for less than ten of which separate population totals are listed in recent Soviet census reports. The largest groups are the Avars, Dargin, Laks, Lezgians, Nogai, and Tabasaran. The total given here for 1989 represents the sum of the reported populations of those six groups plus the Rutul'tsy. Aguly, and Tsakhury.

The figures for Jews include those identified as "Jews", Georgian Jews, Central Asian Jews, Mountain Jews (Jewish Tats), and Crimean Jews (Krymchaki). They do not include the Karaim.

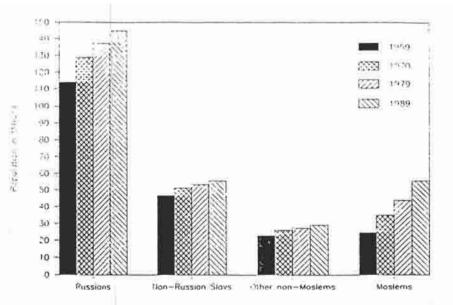
PN signifies "Peoples of the North". In preliminary figures available to date for the 1989 census, the group's population is not reported separately for the country as a whole. For some groups, such as Koriaks and Nenets, who have autonomous regions. figures are available for the number of persons of that nationality in their own autonomous region, but not yet for the RSFSR or the USSR as a whole.

The figures for "Turks" (<u>Turki</u>) in 1979 and 1989 are as reported in preliminary summaries of the 1989 census results. It is not clear where the Turks now listed in the Soviet population of 1979 were counted in the 1979 census. No "Turks" were reported in previous publications of the 1979 census results. The number now reported for 1979 (92,689) exceeds the 66,418 members of "other nationalities" reported in the 1979 census. According to the preliminary 1989 census results, for both 1979 and 1989 about half of the "Turks" resided in Uzbekistan; about one-fourth in Kazakhstan. Less than 10 percent were in Azerbaidzhan. It seems likely that most of the "Turks" reported in Uzbekistan and Kazakhstan in 1979 and 1989 were Meskhetian Turks.

			and the second	
Republic	(1) Proportion of Population Titular, 1989	(2) Proportion of Population Russian, 1989	(3) Number of Years Needed after 1989 for (1) and (2) to Equalize	(4) Year When Equal Proportions Would Occur
	121.8	1.68	A State State State	
Baltic				
Estonia	.612	.302	53	2042
Latvia	.518	.338	65	2054
Lithuania	.792	. 093	438	2427
West				
Belorussia	.774	.131	142	2131
Moldavia	.643	.129	-160	1829
Ukraine	.723	.219	214	2203
Transcaucasia				
Armenia	.939	.016	-94	1895
Azerbaidzhan	.825	.056	-67	1922
Georgia	.695	.062	-126	1863
Central Asia				
and Kazakhstan				
Kazakhstan	.395	.376	· -3	1986
Kirgizia	.519	.214	- 33	1956
Tadzhikistan	.620	.076	- 57	1932
Turkmenistan	.714	.095	-61	1928
Uzbekistan	.710	.083	- 72	1917

TABLE 2. Projected Time Needed for Russians to Equal Number in Titular Nationality in Union Republics, Given Growth Rate of Each Group between 1979 and 1989^a

^a The numbers in columns 3 and 4 are based on projecting the 1979-89 average annual growth rate into the future or past. The numbers help to illustrate the implications of continuing this growth rate and are not meant as predictions.





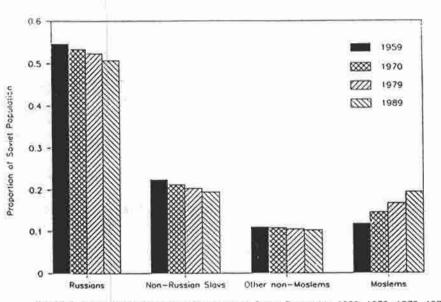
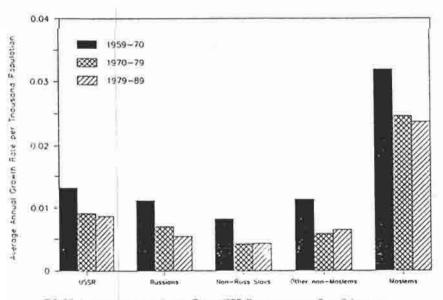
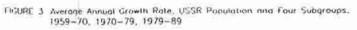
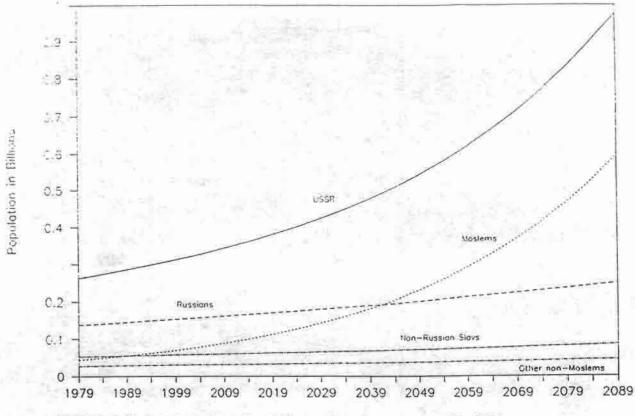
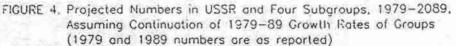


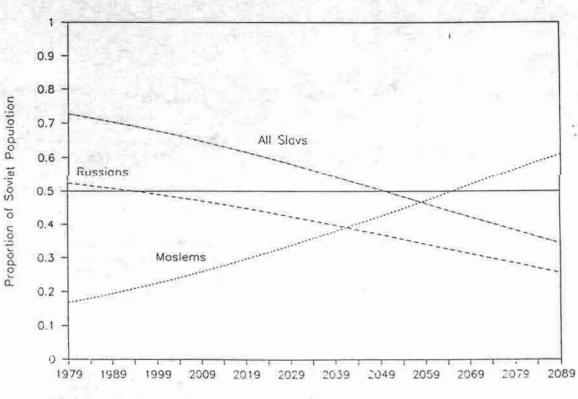
FIGURE 2. Proportion in Four Major Subgroups of Soviet Population, 1959, 1970, 1979, 1989



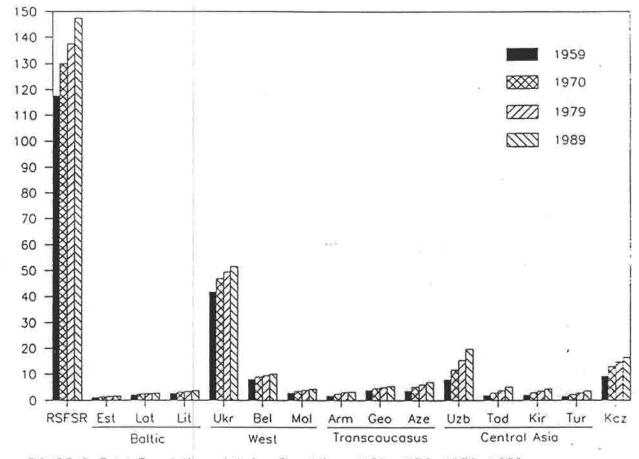


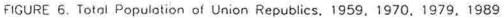






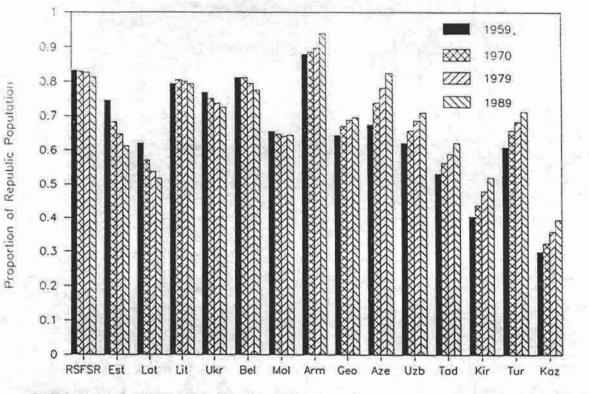


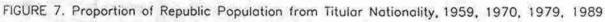


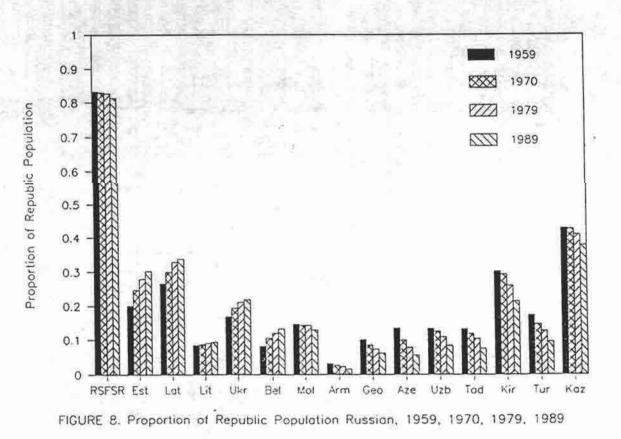


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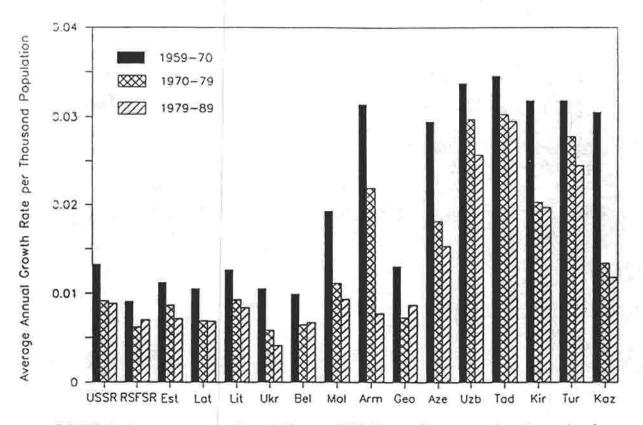
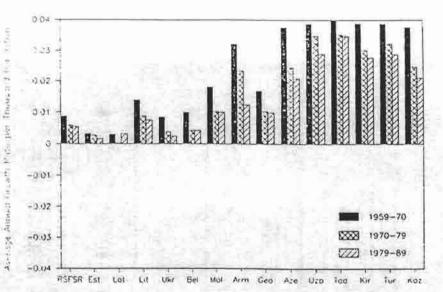
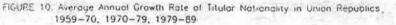
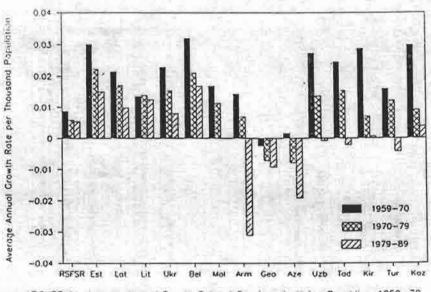
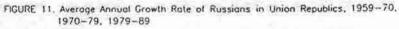


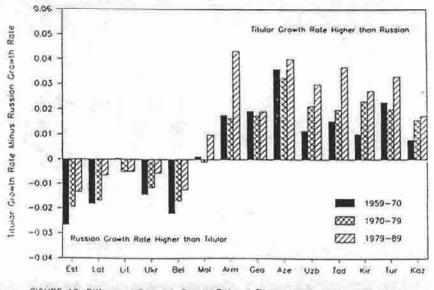
FIGURE 9. Average Annual Growth Rate, USSR Population and Union Republics. 1959–70, 1970–79, 1979–89

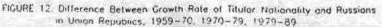


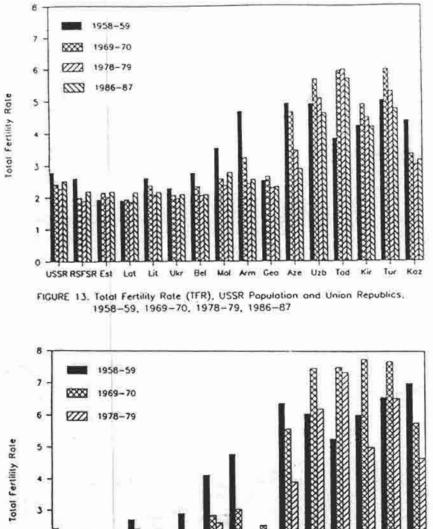


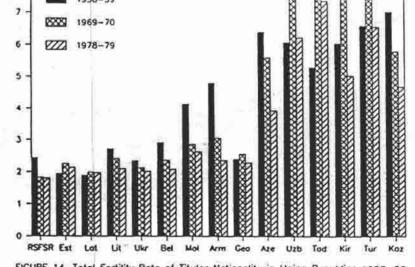












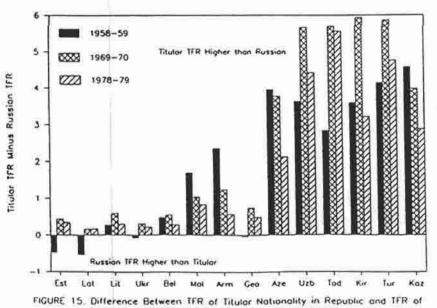
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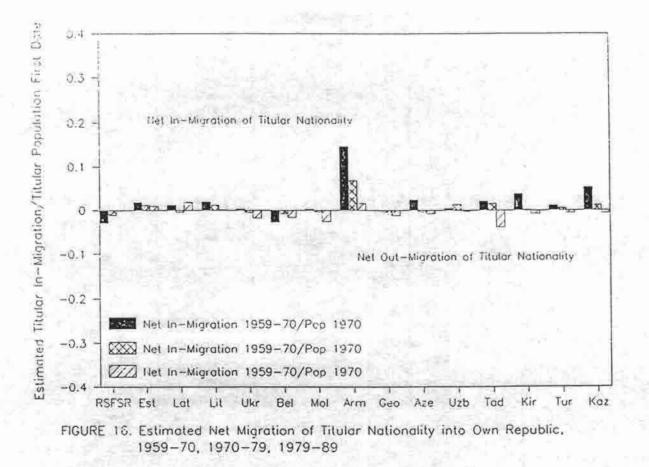
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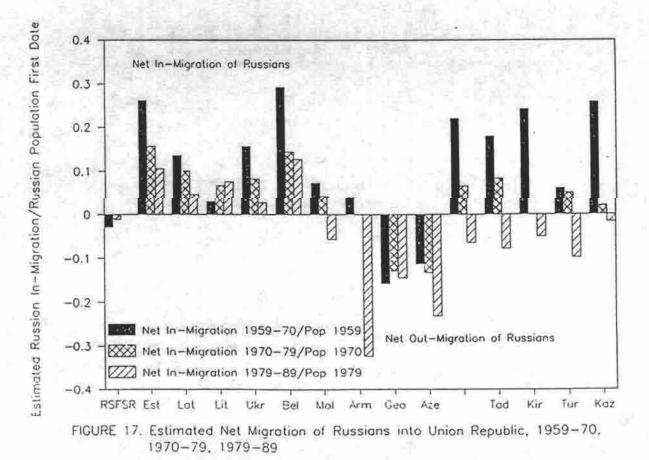
FIGURE 14. Total Fertility Rate of Titular Nationality in Union Republics, 1958-59, 1969-70, 1978-79

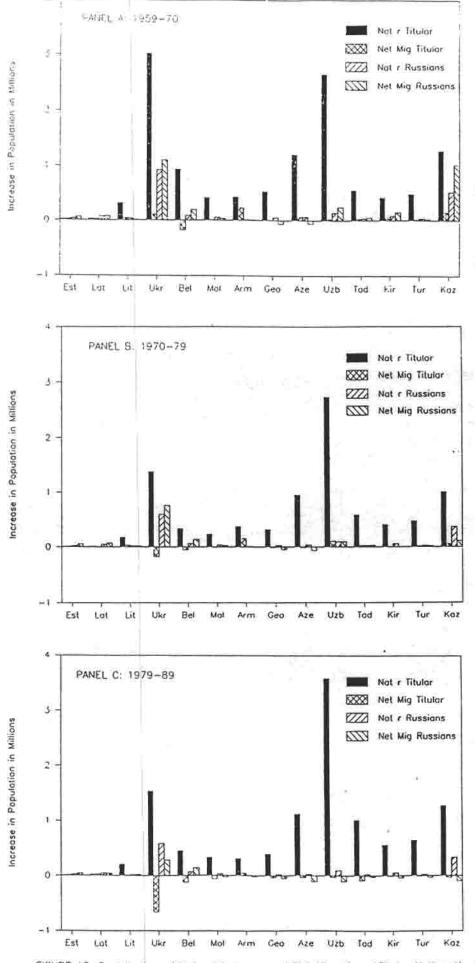
NOTE: Estimated by Bondorskoia and Darskii (1988) (corrected by authors).

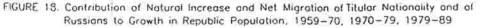








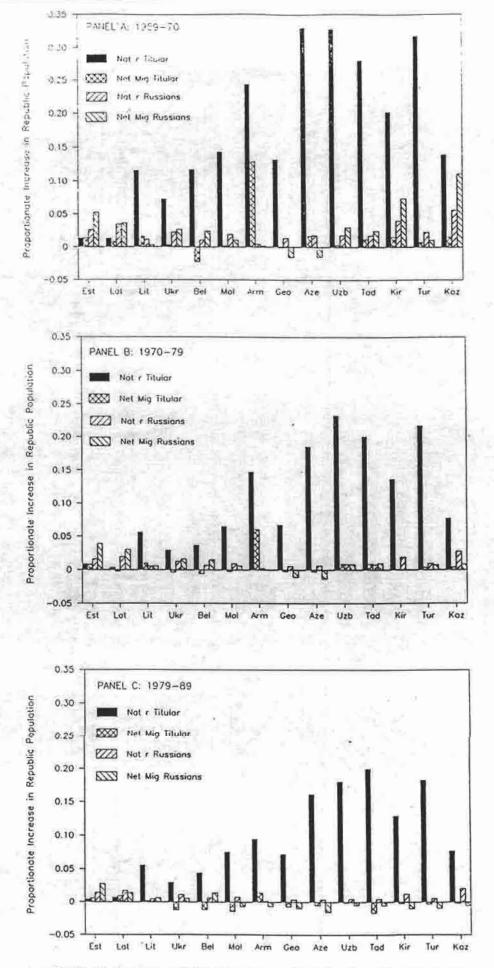


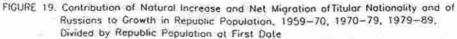


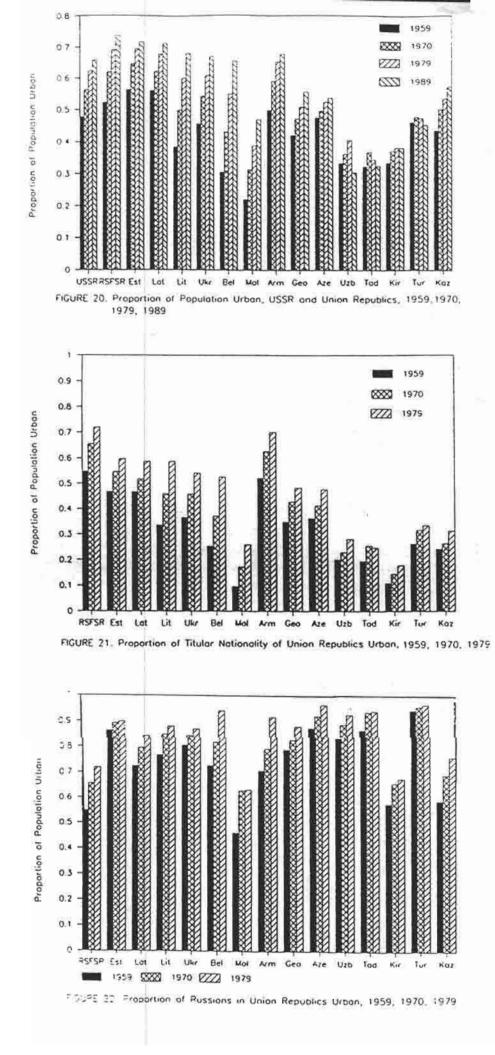
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