

## Discussion

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Professor Eason has ably summarized the salient problems facing demographic research on the Soviet Union today. In my opinion, his formulations are sound. Consequently, my discussion will seek to complement rather than to criticize his paper. It will attempt to identify and to sharpen through more detailed review a number of his key generalizations.

The first of these is the characterization of Soviet population history as a discontinuous phenomenon, immensely affected by catastrophes. These included World War I, postwar epidemics, and the Civil War; the collectivization crisis; and finally, World War II and the backbreaking recovery drive of the later 1940's.<sup>1</sup> The effects of the last two were most devastating; as Professor Eason has noted, the population deficit which they brought about may be as high as 40 million. By far the largest component of this deficit is among those born from 1941 through 1948. For example, a recent Soviet educational planning document presents a model as of 1953<sup>2</sup> in which the survivors of 1944 births are only a third as numerous as those of 1940 births, while even the survivors of 1948 births are only two-thirds as numerous. This reduction reflects both sharply lowered fertility and enormous infant mortality; thus, according to official data, 75 percent of the infants born in Leningrad during the siege and starvation year of 1942 died.<sup>3</sup> Military killed and died of wounds and disease during or soon after the war probably approximated 10 million. Among civilians, the Jews, infants, the aged, and those subjected to the double hazard of German and then Soviet slave-labor camps suffered most severely. In general, such phenomena as the current labor shortage and the lowered fertility of the Soviet Union's western areas, particularly the Ukraine, can best be visualized as continuing demographic effects of World War II.

Another of Professor Eason's major conclusions is that, since 1950 at least, basic changes have taken place in both the mortality and the fertility rates of the Soviet population. In all likelihood, the crude death rate is, today, less than 10 per 1,000; however, the official figure of less than 8 and, above all, the official life expectancy datum of 67 years appear dubious. My reasons are as follows: first, the completeness of registration of vital statistics in the Soviet Union is uncertain and the vital rates may reflect quite incomplete coverage or even an unrepresentative sampling. It is especially doubtful whether much accurate information on age of death is extant. Also, as collateral evidence of the coverage of Soviet vital statistics, it may be noted that, prior to 1958, the largest detailed Soviet morbidity studies had covered only Moscow (in 1926, 1937, and 1947) and nine large industrial centers (in 1947). Furthermore, the planned coverage of the 1958 studies comprised 25 million persons in 120 cities (over a quarter of the urban population), but only about 3 million persons in 84 rural rayons (or less than 3 percent of the rural population).<sup>4</sup>

Second, the sharp difference between urban and rural medical facilities (in 1956, 7.0 medical treatments per man-year, and one X-ray per 10,000 persons in cities; 1.6 medical and 1.4 "fel'dsher" treatments per man-year, and one X-ray per 37,000 persons in rural areas)<sup>5</sup> suggests considerably greater urban-rural mortality differences than those actually reported.<sup>6</sup> Recent data on morbidity are pertinent in this regard. Thus, the tuberculosis infection rate in a West Russian rural rayon in 1955 was 30 per 1,000, compared to 9.5 per 1,000 in Minsk. For circulatory diseases the corresponding rates were 80 and 47.<sup>7</sup>

Third, even in urban areas, the conditions for substantial rates of enteric infection and of tuberculosis are still evident. For example, the Soviet urban water supply in 1955 was less than 25 gallons per person per day.<sup>8</sup> Again, in 1956, only 12.7 percent of all retail stores handling perishable foods were equipped with electric refrigeration.<sup>9</sup> The extreme shortage of Soviet housing (a per capita space less than 30 percent of the inadequate French level)<sup>10</sup> and especially the customary barracks housing of juvenile workers must contribute heavily to endemic tubercular infection. Although considerable progress in controlling tuberculosis has been claimed for selected cities,<sup>11</sup> continued Soviet expansion in the number of tuberculosis specialists argues for a gloomier, non-publicized projection of tubercular morbidity.<sup>12</sup>

In the Soviet drop in birth rates, the major operative factor has been the deficiency of males of reproductive age. For example, among Ukrainian collective farmers 65 percent of the "able-bodied" workers in 1950, and 62 percent in 1955, were women.<sup>13</sup> In addition, I believe that family formation has been minimized and abortion maximized by the wide use of sexually segregated barracks housing.<sup>14</sup> A variety of local reports suggest, in the aggregate, that a fifth to a sixth of the Soviet urban population lives in such housing, which is commonest in the Urals and Siberia. Many students, young workers drafted from the countryside, and, in very congested areas, in-migrant families, are put up in such quarters.<sup>15</sup> Finally, the available data indicate little change in the size of the conjugal family either in the city or, since 1938, in the country.<sup>16</sup> In short, I would regard the Soviet decline in fertility, to date, as an exteriorly caused, quite reversible, phenomenon, rather than the result of a fundamental change in values.

Another aspect of the decline in Soviet fertility should be stressed. As James Brackett has reported in an important paper,<sup>17</sup> regional and ethnic differences in birth rates are very great. In northwest and western Russia, the rate of population increase is about one percent annually, in contrast to about 1.5 percent in Central Russia and Siberia, and to 2.5 to 3.0 percent in Kazakhstan, Central Asia, and the Caucasus. The future political implications of this trend are indeed great. They are acerbated by the limited economic development, the strongly persistent cultural patterns, the Russian-native economic stratifi-

ation, and the absence of significant out-migration which characterize Central Asia and the Caucasus today.

I concur heartily with another conclusion, namely, that population pressure should not be a problem for the Soviet Union in the foreseeable future. This point needs elucidation in view of the slow progress of Soviet agriculture, even considering the marked advances realized since the great crisis of 1953. Briefly put, the limitations on Soviet agriculture reflect bad management, underinvestment and inadequate incentives far more than deficiencies in natural endowment. Reasonable prudence and competence among Soviet leaders are the essential requisites for an adequate if not varied diet for the Soviet population, even if agriculture remains a source rather than a beneficiary of transfers within the economy.

This point also needs qualification. Over-all adequacy does not exclude hardship for considerable segments of the population at lower income levels. In this regard, the belated advent of minimum-wage laws and the continuing absence of social-security coverage for the collective farmers, who constitute two-fifths of the Soviet labor force, are noteworthy.

A fourth generalization made by Professor Eason infers that, historically, Soviet economic growth has been fundamentally dependent upon vigorous expansion of the labor input, via maintenance of high labor force participation rates and the reduction of overt or disguised unemployment. To this I would add the large-scale transfer of labor resources to priority sectors, both through migration and through intensified demands by the State. Illustrative of such intensification has been a 70 percent rise, since 1937, in the labor days worked by each able-bodied collective farmer. In the former year, the State demanded 194 labor days,<sup>18</sup> or somewhat fewer man-days a year, a level which permitted, concurrently, active maintenance of private agricultural and handicraft activity. Today, the private sector is genuinely marginal.

I must also note that, if the studies made by colleagues and me at the Bureau of the Census are right, Soviet productivity gains even in the all-important area of industry have been rather modest. In 1950, man-year productivity among industrial wage workers was some 60 percent higher than in 1928. Between 1950 and 1956, it increased over 40 percent, a rapid rate; in 1957 and the first half of 1958, however, the annual growth of productivity was under 3 percent annually, a fact partly ascribable to a shortened work week. In general, therefore, labor input appears to be the critical variable in Soviet economic development.<sup>19</sup>

However, present policies, while influenced by demographic factors, are not exclusively determined by them. In my opinion, the changes in education and such paradoxes as work-week reductions in a time of labor shortage reflect Khrushchev's desire to gain the support of the urban worker. Khrushchev may be, in a sense, a political champion of the Soviet masses against the managerial classes. This image is especially needed in view of the continuing pressures to accelerate urbanization by

reducing wage-work possibilities in the countryside.

To summarize, the analysis of population movements, in the Soviet Union at least, depends upon close scrutiny of a variety of related socio-economic and political phenomena. Here especially, demography must be considered as a socio-biological interaction. I hope that Professor Eason's paper and my discussion have aided in the formulation of this basic point.

#### Footnotes

<sup>1</sup> A recent quantitative survey of Russian population history is J. N. Biraben, "Essay on the Demographic Evolution of the U.S.S.R.," Population, vol. 13, no. 2b, pp. 29-62, 1958.

<sup>2</sup> V.M. Dmitriyev, et al, Organizatsiya i planirovaniya vseobshchego desvatiletnego obrazovaniya (Organization and Planning of Universal Ten-Year Education), Izd. Akad. Pedagog. Nauk RSFSR, Moscow, 1955, esp. pp. 62-67.

<sup>3</sup> S. A. Novosel'skiy, "Life Expectancy and Mortality of Infants 0 - 1 in Leningrad in the Period After the Blockade," Gigiyena i sanitariya, vol. II, no. 7/8, pp. 1-5, 1946.

<sup>4</sup> L. A. Brushlinskaya and M. M. Mazur, "Let us Use the All-Union Population Census for Studying Morbidity," Sovetskoye zdравookhraneniye, 1958, no. 4, pp. 29-34.

<sup>5</sup> Data calculated from Ts.S.U. pri Sov. Min. SSSR, Narodnoye khozyaystvo SSSR v 1956 godu. (National Economy of the U.S.S.R. in 1956) (Moscow: Gosstatizdat, 1957), p. 25; and Min. Zdrav. SSSR, Zdravookhraneniye v SSSR (Public Health in the U.S.S.R.) (Moscow: Gos. Izd. Med. Lit., 1957), pp. 109-114. As Dr. M. B. Shimkin has noted in a private communication, the general use of B.C.G. in the U.S.S.R. renders patch tests for tuberculosis ineffective. Hence, X-rays are vital for this purpose.

<sup>6</sup> Officially reported crude death rates for 1956 are Kuybyshev city 8.9, remainder of oblast' 9.2; Novosibirsk city 11.3, remainder of oblast' 12.0; Leningrad city 6.7, remainder of oblast' 7.8 (compiled by Michael Roof).

<sup>7</sup> V. I. Berlin, "An Attempt at Studying the General Morbidity of the Population of a Rural Rayon," Sovetskoye zdравookhraneniye, 1958, no. 4, pp. 49-53; N.N. Govor, "The Morbidity of the Population of Minsk in 1955 and 1956," ibid., 1958, no. 7, pp. 23-29.

<sup>8</sup> Calculated from A. Kogan, "Water Supply and Sewer Systems in the R.S.F.S.R.," Zhishchno-kommunal'noye khozyaystvo, 1956, no. 2, pp. 9-10.

<sup>9</sup> Sovetskaya torgovlya, 1957, no. 11, p. 19.

<sup>10</sup> G. Grigoroff, "Population and Housing in the U.S.S.R.," Population, vol. 13, no. 2b, pp. 77-88, 1958, esp. p. 78.

<sup>11</sup> N. N. Dolge, "Dynamics of Tuberculosis Morbidity and Mortality in R.S.F.S.R. Cities," Sovetskoye zdравookhraneniye, 1958, no. 4, pp. 45-49.

<sup>12</sup> Min. zdрав. SSSR, 1957, op.cit., p. 58.

<sup>13</sup> Calculated from average male and female labor-day input figures in Ts.U. pri Radi Min. S.R.S.R., Narodne gospodarstvo ukraynskoy BSR (National Economy of the Ukrainian S.S.R.) (Kyiv: Der. Stat. Vid., 1957), p. 293.

<sup>14</sup> Another factor promoting abortions is the inadequate protection of unmarried mothers and deserted wives in Soviet law, cf. V. Gsovski, Soviet Civil Law, 2 vols. (Ann Arbor: University

of Michigan, 1948), esp. I:111-136; also New York Times, October 7, 1956, and M. G. Field, "The Re-legalization of Abortion in Soviet Russia," New England Journal of Medicine, 255:421-7, 1956.

<sup>15</sup> The basic regulations on barracks are given in I. Kozlov, et al, Sbornik postanovleniy i instruktsiy po zhilishchno-bytovym voprosam (Collection of Decrees and Instructions Concerning Questions of Housing Economics) 2nd ed., (Moscow: Profizdat, 1952), pp. 108-124; on alcoholism and allied problems of Soviet dormitory life, see M.G. Field, "Drink and Delinquency in the U.S.S.R.," Problems of Communism, vol. IV, no. 3, pp. 29-38, 1955.

<sup>16</sup> In 1926, the average size of the urban family was 3.9 persons (4.1 persons for those headed by males; 3.2 persons for those headed by females), cf. Gosplan SSSR, Vsesoyuznaya perepis' naseleniya 1926 g. (All-Union Census of Population, 1926), 55: 2-3, 26-47, 52-53, Moscow, 1931. For 1956, Ioffe mentions "about 20 million" urban families, in a total urban population of 87 million (Plano-voye khozyaystvo, 1956, no. 6, p. 55). If 15 to 20 percent are deducted as an allowance for single persons in barracks, the average size per family may be estimated at 3.5-3.6. Such a decline from 1926 is ascribable largely to the increase in female-headed families. This estimate has been confirmed by the Soviet sample census of 1957 which covered 1,021,000 persons, 87 percent urban, cf. P. Pod'yachikh, "On Developments in a Sample Census of Population," Vestnik statistiki, 1958, no. 1, pp. 25-42, esp. p. 34 which indicates an average of 4 per family.

For rural areas, there has been a considerable decline in household (dyor) size. In 1927, a sample census of 615,370 households established an average size of 5.1 persons, including 2.45 "able-bodied", i.e., aged 16 - 60 for males, 16 - 55 for females. See Ts.S.U. SSSR, Statisticheskiy spravochnik SSSR za 1928 (Statistical Handbook for 1928), pp. 92-145, Moscow, 1929. In 1938, Soviet collective farm households averaged 4.4 persons, including 1.9 "able-bodied," according to Laptev, as quoted by W. Eason, The Agricultural Labor Force and Population of the U.S.S.R., 1926-1941 (Rand Research Memorandum 1248, 4 May 1954), p. 78. For 1956 an average collective-farm household size of 4.0 persons, including 1.9 "able-bodied," can be calculated from statistics published in Ts.S.U., 1957, op.cit., pp. 17, 19, 141, 203, and 218.

Interpretation of this trend must take into account not only the high postwar proportion of female-headed, smaller households, but also an increasing number of units (even separate individuals) created by the partition of extended families to maximize land allotments. See, G. S. Maslova, "Culture and Economic Life of a Collective Farm in the Moscow Area," Sovetskaya etnografiya, 1951, no. 1, pp. 39-62, esp. p. 54; L.N. Terentyeva, "On the Way to a Prosperous and Cultural Life (in Latvia)," ibid., 1951, no. 2, pp. 85-104, esp. pp. 91, 104.

<sup>17</sup> J.W. Brackett, "Differential Growth of Nationality Groups in the Soviet Union," (given at the American Anthropological Association Meeting, Washington, D. C., November 20, 1958; available from the Foreign Manpower Research Office, U. S. Bureau of the Census).

<sup>18</sup> N. Jasny, The Socialized Agriculture of the U.S.S.R. (Stanford Univ. Press, 1949), page 411;

Ts.S.U. pri. Sov. Min. SSSR, Dostizheniya sovetskoy vlasti za 40 let v tsifrakh (Accomplishments of the Soviet Regime Over 40 Years in Figures) (Moscow: Gosstatizdat, 1957), p. 165.

<sup>19</sup> D. B. Shimkin and F. A. Leedy, "Soviet Industrial Growth," Automotive Industries, vol. 118, no. 1, pp. 48-59, 122.