

## Current knowledge of the level and nature of mortality in the Ukrainian famine of 1931-3

S.G.Wheatcroft

Published in Russian and Ukrainian in V.Vasil'ev & Yu. Shapovala, *Komandiri velikogo golodu: Poizdki V.Molotova I L.Kaganovicha v Ukrainu ta na Pivnichnii Kavkaz, 1932-1933 rr.*, Kiiiv, Geneza, 2001, pp.

We now know that internal Secret Soviet documents of 1932-4 were fairly clear about the existence of widespread famine in 1933 and of localised famine in 1932. In 1933 it was accepted that mortality rates had risen nationally by a factor of 3 and in certain areas like Ukraine by 5 and that natality rates had fallen dramatically. From 1934 when the All Union NKVD was formed and given charge over birth and death registration there was increased persecution of registration officials and claims that they were over-reporting deaths and under-reporting births. After Stalin's statements about population growth in 1933, at the XVIIth Party Congress March 1934, it became increasingly dangerous to refer to famine of these years even in secret materials<sup>1</sup>.

These secret reports were first published in Ukraine by the former Ukrainian Party Archives in 1990.<sup>2</sup> Although copies of many of these materials were sent to OGPU and the Politburo in Moscow relatively few of these materials have so far been published in Moscow.<sup>3</sup>

Detailed mortality data for the famine period are available in the central TsUNKhU files in the Central Economic Archives (TsGANKh,SSSR now RGAE) in Moscow. These contain detailed monthly records of death by Ukrainian oblast from 1932, and detailed raion level records of mortality, natality etc. Some cause specified mortality indicators are available for the cities, and details on age of death as well. The first summary analyses and presentations of these data were published in 1990 and 1991<sup>4</sup>

The Ukrainian UNKhU files in the Ukrainian Economic Archives (TsGANKh,USSR, now TsDAVO) are completely devoid of demographic data for this period.<sup>5</sup> The Ukrainian Gosplan files contain some incomplete demographic material for the period 1931, before a separate accounting centre was established in 1932.<sup>6</sup> From what I have been able to ascertain local Ukrainian archives also lack data for this crucial period<sup>7</sup>.

<sup>1</sup> See point will be explored at length in the published version of my Toronto conference paper.

<sup>2</sup> R. Ya. Pirig (ed.), *Golod 1932-1933 rokiv na Ukraini: ochima istorikiv, movoyu dokumentiv*, Kiiiv, 1990

<sup>3</sup> It is to be hoped that this situation will change with the imminent publication of two multi-volumed books of documents: *Tragediya Sovetskoi Derevnei, 1927-1940, vols 1-5*, and *Sovetskoi Derevnei cherez glazami ChK/VChK/GPU/OGPU/NKVD, 1917-40, vols. 1-3?*

<sup>4</sup> S.G.Wheatcroft in 'More light on the scale of repression and excess mortality in the Soviet Union in the 1930s' *Soviet Studies*, April 1990, pp. 355-367, E.A. Osokina, 'Zhertvy goloda 1933g.: skol'ko ikh? (Analiz demograficheskoi statistiki TsGANKh SSSR), *Istoriya SSSR*, 1991, no. 5.

<sup>5</sup> See TsDAVO, F.318, op. 1, dd. 1435-1499 Department of Statistics of Population and Health.

<sup>6</sup> See TsDAVO, F.337, op.1, dd. 11598-11608.

<sup>7</sup> I am grateful to Professor Valery Vasiliev for this information.

There is however a problem with the current registration data on deaths regarding their reliability and completeness. We know from a comparison of the survival rates from the 1926 to the 1939 or 1937 censuses, that a much higher proportion of the population died (or disappeared) between these censuses, than is indicated by the mortality registrations, and there has been considerable discussion about this level of unregistered mortality.

By comparing the size of the different age and sex cohorts the population registered in the earlier census with those surviving in the later census it is possible to compute a series of age and sex specific mortality rates for this entire inter-census period. And in theory these census derived age and sex specific mortality rates could be compared with the normal mortality that could have been expected over these years in order to calculate the level of excess mortality.

There are two minor practical problems with this and three major problem. Starting with the minor practical problems. First there is a need to presume that there were no population transfers in or out of the region. This presumption can be held at the all USSR level, but not at the Republican or urban level. Second there is a need to presume that age bunching does not significantly effect the results. It is a well-known phenomena within all early censuses that populations give inexact indicators of their age, and that they tend to round the results to the nearest 0 or 5, and generally to favour even numbers over odd numbers. The results in most population pyramids resembling Christmas trees rather than the smooth walls of a pyramid. There are statistical methods of smoothing out these distortions, but it does lessen the significance of resulting comparisons.

The major problems with this practice refer to i) the selection of 'normal mortality', ii) the treatment of 'normal' under-reporting, and iii) the distribution of computed excess mortality amongst the different inter-census years.

Although it is tempting to assume that registration data was relatively reliable for most of these years apart from the worst famine year of 1933. Such a presumption is not justified on the basis of a history of the registration system, or the observable nature of the data held in the central archives.

We know that mortality began rising in many areas very soon after the 1926 census, and it was for that reason that the publication of detailed demographic materials ceased centrally for 1928, and in Ukraine for 1930.<sup>8</sup> We also know that this refusal to publish indicators of rising mortality was accompanied by pressures towards statistical distortion. These pressure for statistical distortion, and the reporting of figures to demonstrate plan fulfilment, rather than reality, were at their worse in the period 1930-1931 when the Central Statistical Administration lost its independence and was forced to become a Sector of Gosplan. At first the Statistico-Economic Sector, and then the Sector for National Economic Accounts. It was at this time that the proposed 1930 census was cancelled, and it was temporarily believed that objective statistics could be replaced by socialist planned accounts. The results were gross distortions in all branches of accounts.

---

<sup>8</sup> The last detailed USSR publication on mortality and natality data was *Estestvennaya dvizheniya naseleniya SSSR 1926*, Moscow TsSU, 1929. The last detailed Ukrainian publication on mortality and natality was *Prirodniy rukh lyudnosti Ukrainy v 1929r.*, Kharkov, 1932.

This deterioration in statistical accounting reached such levels that the government in December 1931 moved to improve matters by restoring a degree of independence to the Central Statistical Agency (called TsUNKhU). It was to have a separate identity from Gosplan, and more independence from it, and it was to have a new more powerful director who would also be a deputy chairman of Gosplan. The appointment of the highly respected, outspoken and independent politician N.Ossinsky to direct TsUNKhU in January 1932 demonstrated that this change was being taken seriously. And Osinsky did lead a veritable reconstruction or renaissance of statistical activity in these years. The statistical revival was not to last long. Osinsky's independent outlook was soon to bring him into conflict with the Politburo. His position was weakened somewhat, when he received an official *vygovor* from the Politburo in 1933, and when the Stalinist Kraval' was brought in as his deputy to attempt to control him. Eventually Kraval' would take over, but for the two years of 1932-1933, at the height of the famine, the Soviet statistical system was working in many areas much better than it had been in 1930- 1931 and than it was to work in later years. The position regarding ZAGS registration of demographic events became much more complicated after 1934 when the newly created NKVD took control of these matters, and soon began claiming that ZAGs officials and statisticians were carrying out wrecking activities by double-reporting deaths and under-reporting births.

There is consequently significant detailed historical/political grounds to suspect that demographic registration data were more consciously falsified in the periods 1930-1931 and in 1934-1939, than they were in the famine years of 1932-1933. This does not however rule out the possibility of significant unconscious and incomplete recording of mortality in the famine years. In fact, it would be quite remarkable for any registration system not to fail in the conditions of a massive famine. But the detailed data that we have shown no obvious signs of omissions.<sup>9</sup> The monthly data for 1932-3 show a fall natality and a rise in mortality in the manner in which we would expect.<sup>10</sup> The detailed regional data, which are only available for years after 1933 show no major signs of omissions.<sup>11</sup> Detailed monthly infantile mortality rate data also indicates no significant discontinuities.<sup>12</sup>

We are consequently left with a situation in which we can only offer a range of possibilities of the level and nature of mortality and excess mortality for Ukraine in the famine years. In table 1 I offer a series of calculations of the minimal figure for the scale of famine mortality and excess mortality and population losses if we take the

---

<sup>9</sup> Since births fell and mortality rose in a famine, it would normally be very easy to spot obvious cases of omissions of data. But even when we look at the detailed monthly, or regional data sets, no major cases of omission are apparent.

<sup>10</sup> This was discussed in some detail with the Russian demographers Andreev, Darskii and Kharkova at a major international conference on Soviet demographic History in Toronto in 1996? and in their subsequent book. They maintain that declines in natality are exclusively a consequence of reduced conceptions, that there was no famine in Ukraine in 1931/2, and that consequently the sharp decline in natality in the spring and summer of 1933 must be a statistical rather than a real phenomena. I maintained in Toronto, and continue to maintain that this is mistaken. That most recorded famines have experienced a reduction in natality that coincides with the peak in mortality, and that there was a serious famine in Ukraine in 1931/2 that preceded the more serious 1932/3 famine, but which was serious enough to reduce natality at that time.

<sup>11</sup> RGAE, F. 1562, op. 329, d. 53

<sup>12</sup> RGAE, F.1562, op.20, d.41

unadjusted registration data on births and deaths. In table 2 I offer a series of adjusted calculations which are based upon various assumptions concerning the distribution of presumed Ukrainian intercensus excess mortality between these various years.

Table 1: Minimal levels of excess mortality and population loss for USSR and UkSSR, 1931-4

a) Excess mortality and population losses cf 1928 levels

	In millions					
	i) XS mort		ii) Birth loss		iii) Pop loss	
	Uk	SU	Uk	SU	Uk	SU
1931-33(4)	1.5	3.1	1.7	6.9	3.1	10.0
1933(4)	1.4	2.5	1.2	4.6	2.6	7.1
1928-34	1.6	3.5	2.6	9.2	4.2	12.7

b) Excess mortality and population losses cf 1935 levels

	In millions					
	i) XS mort		ii) Birth loss		iii) Pop loss	
	Uk	SU	Uk	SU	Uk	SU
1931-33(4)	2.0	3.0		3.0	2.0	6.0
1933(4)	1.5	2.5	0.5	2.6	2.0	5.1
1928-34	2.7	3.3	0.5	3.0	3.2	6.3

c) Excess mortality and population losses, avg, 1928-35

	In millions					
	i) XS mort		ii) Birth loss		iii) Pop loss	
	Uk	SU	Uk	SU	Uk	SU
1931-33(4)	1.8	3.1	0.9	4.9	2.7	8.0
1933(4)	1.5	2.5	0.9	3.6	2.4	6.1
1928-34	2.1	3.4	1.5	6.1	3.6	9.5

There have been numerous attempts to analyse the population census survival cohorts and to compare the results with the available registration data. The estimates of Lorimer, Maksudov and Andreev, Darskii, Kharkova (ADK) have been compared elsewhere, together with the original 1937 Kurman's analysis of the gap between the censuses and the registration data, and the subsequent analyses of Tsaplin and Andreev, Darskii & Kharkova.<sup>13</sup>

Tsaplin has argued that the observed 8 million unregistered deaths between December 1926 and January 1937 could be reduced by 1.3 million to account for Kazakh deaths and migration during the famine, by 2.8 million for unregistered deaths in the NKVD system. This would leave 3.9 million to be accounted for by under-registration.

<sup>13</sup> see S.G.Wheatcroft and R.W.Davies, 'Population', in R.W.Davies, Mark Harrison, and S.G.Wheatcroft, *The Economic Transformation of the Soviet Union, 1913-1945*, Cambridge, 1994, pp. 72-7.

ADK have pointed out that assessing under-registration of deaths is not that straight forward, because under-registration of deaths was unlikely to have occurred without a certain amount of under-registration of births, which would require, more mortality to balance with the census results. While this is true, we doubt that as much of this under-registration took place in the peak famine year of 1933 as ADK presume. We are inclined to agree with Lorimer that the normal under-registration of infantile deaths and the births of those infants that died in early infancy, was probably fairly high and that there was not a proportionate increase in such under-reporting during the famine period. As explained above, this was surprisingly, a period of relatively good registration. We consequently assume that we require to incorporate an additional 3.9 million deaths for the Soviet Union as a whole, for the entire period December 1926-January 1937. Given the increasing NKVD pressures on the statisticians and registration officials after 1934, and the chaotic period of plan constructivist statistical distortions of 1931-32, it is not at all clear that the more than a half of this (ie. about 2 million) should be allocated to the famine period of 1931-4, or that more than a quarter (ie. about 1 million) should be allocated to Ukraine in this period. But to be on the cautious side I will allow an upper limit of double these amounts.

The following is a very rough estimate of how such a spread could be made:

Table 2: Probable level of excess mortality and population loss in USSR and UkSSR, 1931-4

2a) Registered excess mortality and population loss

	i) XS mort		ii) Birth loss		iii) Popln loss	
	Uk	SU	Uk	SU	Uk	SU
1931-33(4)	1.8	3.1	0.9	4.9	2.7	8
1933(4)	1.5	2.5	0.9	3.6	2.4	6.1

2b) Unregistered excess mortality and birth loss

	i) XS mort		ii) Birth loss		iii) Popln loss	
	Uk	SU	Uk	SU	Uk	SU
1931-33(4)	1-2(3)	2-4(5.5)	(1)	(1.5)	1-2(4)	2-4(7)
1933(4)	0.5-1(1.5)	1-2(3)	(0.5)	(1)	0.5-1(2)	1-2(4)

2c) Total excess mortal and birth loss

	i) XS mort		ii) Birth loss		iii) Popln loss	
	Uk	SU	Uk	SU	Uk	SU
1931-33(4)	2.8-3.8(4.8)	5.1-7.1(8.6)	0.9(1.9)	4.9(6.4)	3.7-(6.7)	10-(15)
1933(4)	2-2.5(3)	3.5-4.5(5)	0.9(1.4)	3.6(4.6)	2.9-(4.4)	7.1-(9.6)

The registration data indicate that Ukraine experienced a massive famine in 1931-3 that accounted for a minimum of 1.8 million excess deaths and population loss (including birth losses) of 2.7 million. Depending upon the estimations made concerning unregistered mortality and natality, these figures could be increased to a level of 2.8 million to a maximum of 4.8 million excess deaths and to 3.7 million to a maximum of 6.7 million population losses (including birth losses). These figures would indicate that this was the largest recorded famine loss of its time, only to be exceeded by the famine of the Great Leap Forward in China, 1958-61. More detailed data are available on the monthly dynamic of mortality and natality in these years for urban and rural divisions of UkSSR and the regional dynamic (by oblast) for urban

and rural divisions of UkSSR and are provided in the appendix. They indicate the following pattern of excess mortality and birth deficits

Table 3: Regional indicators of excess mortality 1932-4 (unadjusted for under-reporting) above the 1931-1935 trend line

	Rates per thousand			In thousands			Excess mortality
	Urban	Rural	All	Urban	Rural	All	
1) Polesse							
Chernigov ob	52.9	33.3	35.8	15	89	106	
2) Right Bank							
Kiev Ob	49.8	88.1	81.9	49	453	502	
Vinnitsa Ob	39.3	44.9	44.5	16	198	214	
2) Right Bank	46.9	68.3	65.7	65	653	718	
3) Left Bank							
Kharkov Ob.	40.0	74.4	68.0	50	363	416	
4) Steppe							
Dnepetrovsk Ob	30.4	39.1	37.3	31	111	144	
Odessa Ob	32.6	39.3	37.7	31	93	125	
Donetsk Ob	23.9	23.1	24.6	53	43	100	
AMSSR	31.1	47.5	45.9	2	26	28	
4) Steppe	27.9	35.8	33.8	119	274	402	
UkSSR	34.6	54.7	50.8	248	1,353	1,620	

It should be emphasised that these indicators refer to excess mortality in 1932-4 above the trend level of 1931-1935, and that they are exclusive of any corrections for under-registration. They indicate the extremely high level of rural mortality in Kiev Oblast and Kharkov Oblast. The comparatively very low rates for both urban and rural regions of Donetsk Oblast, and the higher levels of urban than rural mortality in Chernigov Oblast and Donetsk Oblast. Whilst these indicators would all clearly need some correction for under-registration, it is doubtful that these corrections would obliterate the trends indicated by these uncorrected figures.