

What actually happened to the Jews of Ukraine in 1648?

SHAUL STAMPFER

Hebrew University, Jerusalem, Israel

Abstract. The question of how many Jews died and how many survived in 1648 has produced much historical discussion. The problem is always the incompatibility of scholarly estimates and what is found in contemporary chronicles. Using demographic tools and applying them to all the regions of the Ukraine, it appears that no more, and possibly much fewer, than fifty percent of the 40,000 or so Jews in that region perished. The survivors mostly returned to their homes and rebuilt. Though speculative, the commensurability of the results argues their probable accuracy.

Much of significance in early modern Jewish history is known only in shadows, obscured by a dearth of sources. The fate of Ukrainian Jews during the uprising led by Khmel'nyts'kyi would seem to be an exception.¹ A number of detailed chronicles offer vivid descriptions, and liturgical works and many contemporary sources allow even greater precision. Though these sources have been repeatedly examined, the following essay will look at them anew, and at their demographic evidence in particular. The aim is to revise some long accepted conclusions. Specifically, the essay will seek to describe the size of the Jewish community before the Khmel'nyts'kyi Uprising in the hope of determining how many Jews survived and the impact of this figure on the overall meaning of events.

The problem

The uprising led by Bogdan Khmel'nyts'kyi against the Polish regime began in the Ukraine in the spring of 1648. Its impact on the collective memory of Ukrainian and Polish Jews was enormous.² Especially in the first years of the uprising, many Jewish communities in the Ukrainian lands, in Lithuania, and in Poland were destroyed. In subsequent generations, East European Jews "remembered" vividly how Khmel'nyts'kyi's forces massacred the helpless Jewish communities wherever they could be found. This image was preserved and transmitted in a number of ways. Chronicles were read, stories were told, and for centuries many Jews in the Ukraine observed a fast day in memory of the victims. The Jewish perception of these events contributed both

SHAUL STAMPFER

to their self-stereotypes and to their views of others, notably of the Ukrainians and Poles. The varied ways Jews remembered what happened has been the topic of a variety of studies³ but oddly enough, what actually happened has not been carefully examined.

There is no lack of descriptions of what happened to the Jews during the uprising. The Jewish chronicles depicted the Cossacks going from town to town and slaughtering the local Jews.⁴ They often described Jews fleeing to fortified cities, but this account was usually followed in the narrative by the arrival of the Khmel'nyts'kyi's forces and then the death of the Jews. If this had really been the case, very few Jews could have survived those years, and, indeed, there are some very high estimates of Jewish casualties during that period.⁵ However, this portrayal is based on two problematic assumptions. To assume that Jews did little more than flee to nearby fortresses does not fit what we know about them. Reliance on local strongholds was reasonable at the outbreak of the uprising. There was no reason for anyone to think that the Polish forces would be unable to deal with the forces led by Khmel'nyts'kyi, and most informed observers anticipated that the uprising would be swiftly repressed. However, this was not the case, and the forces of Khmel'nyts'kyi continued to advance and destroy Jewish communities. Ukrainian Jews had survived and prospered until then by using their wits. They were hardly fatalistic types. To assume that Jews "waited" for the forces of Khmel'nyts'kyi to arrive and annihilate them is to presume they were highly imperceptive. To begin with, there was always the option of flight, which few Jews did not have. Khmel'nyts'kyi's forces rarely entered a city by surprise. News traveled faster in Eastern Europe than military forces. The most obvious response to the approaching danger was to pack up and flee, irrespective of the loss of property and uncollected debts.

No evidence exists to prove that Khmel'nyts'kyi and his forces planned to annihilate Ukranian Jewry. Mass murder requires great planning and organization. Khmel'nyts'kyi would have had to assign fighters needed for the military struggle with the Poles to the task. Many Ukrainians intensely disliked Jews, whose prominent role as tax collectors and ties with the Poles likely increased this feeling. However, intense dislike is not obsession. To wit, there were a number of occasions where the Ukrainian forces besieging a city spared the lives of the local Jews in return for a (large) payment by the local Jewish community. The chronicles also record cases of friendship between Jews and Ukrainians without implying this was exceptional. The Jews who lived in the area both before and after the uprising did not seem to regard relations between Ukrainians and Jews as significantly worse than relations between Jews and non-Jews elsewhere in Eastern Europe. Only had most of the Jews been slaughtered, as many of the high estimates of Jewish casualties imply, might it be possible to continue accepting the widely held assumption that Ukrainians hated Jews to the point of murder.

However, the best way to counter assumptions about murderous intentions – and to challenge old historical assumptions – is to show that the number of casualties was much lower than generally accepted. The way to do this, as I propose here, is to determine what happened to the Jewish population of the Ukrainian lands as a whole. Valuable studies of developments and events in specific communities exist.⁶ Yet we have no real gauge to help decide whether these studies are either representative or exceptional. The only way really to know what really happened demographically is to study the whole, using tools and sources that relate to the entire population. Only then may generalized conclusions be compared with specific ones based on individual communities and the overall picture verified. Indeed, it is the consistent commensurability of the general with the specific in this essay, and vice-versa, that gives the overall picture its strength, creating a whole that, as the adage goes, is somewhat greater than the sum of its individual (and admittedly often speculative) parts. To repeat, the object of this essay is to weigh old hypotheses and suggest new ones. Their accuracy will be verified only by intense study and future research.

The demographic impact of the uprising

Calculating the number of Jewish casualties is difficult. This is not because these events took place centuries ago. Even at the time, counting the precise number of victims and survivors would have been almost impossible. The uprising affected a large area including Red Rus', Volhyn, Podilia, and the Bratslav and Kiev regions, which then housed over two hundred Jewish communities. There were no censuses of the Jewish or general population of Ukrainian lands in the seventeenth century. There were certainly no "before and after" head counts to give precise information on losses. Where mass killings took place, there was little time and opportunity for survivors to count the bodies before burial. Even had there been a count, to whom would it have been communicated? When some Jews fled and some were killed, it is difficult to determine which group was the greater. To say that a community was destroyed says little about the fate of individual inhabitants: survivors, escapees,

SHAUL STAMPFER

or the dead. There is no warrant to assume that a chronicle's claim that no Jews were left in a town means that all the Jews there were killed.

The authors of the Jewish chronicles were motivated by a desire to arouse emotions and to lead readers to consider the punishments God metes out to individuals.⁷ Their descriptions had value only if they could lead readers to repent or to maintain the sacred memory of the victims. The more moving the description, the more likely it was to achieve its goal. Chronicles also aimed at encouraging readers generously to support survivors: here, the more dramatic the story, the better. Historical accuracy plays no role in either case. Precision might, in fact, be counter-productive. The more victims reported, the greater the horror and consequent repentance and generosity. Therefore, there is no prima facie reason to assume that the Jewish chronicles are, or are intended to be, precise. For example, they report far more casualties in Pinsk and Dubno than do the archival sources.⁸ Many Jews clearly escaped. A letter written by an eyewitness in Bar raises similar guestions.⁹ One cannot take for granted that the well-known disastrous fate of Jewish communities such as Nemiriv and Polonne was typical of Ukrainian Jewry as a whole.

Yet other sources and methods sometimes make it possible to know either the actual number of Jews slaughtered or their percentage of the Jewish population in a particular place. Sometimes both number and percent are knowable. To begin, it is necessary to assess the number of Jews who lived in Ukrainian lands before 1648 and then the number of survivors. Admittedly, too often it is necessary to use rough estimates with a large margin of error. Yet what is being sought out here is not the decimal-point accuracy of modern demographics, but a reasonable figure that will finally allow the enormously disparate figures ranging from 10,000 or so to half a million to be rationalized. Specifically, this means that even figures as gross as five- to ten-thousand as a range of accuracy have value over the old numbers. I have decided, however arbitrarily, to settle for a range that is half of that: to wit, 5,000 to 7,500, or what I would call fifty percent as a margin of error, as opposed to the one-hundred percent in the five- to ten-thousand range above. The conclusions will not be definitive, but they will provide a starting point for an eventually accurate demographic reconstruction. Part of my conclusion will be that significantly fewer Jews lived in the Ukrainian lands than may be inferred by many current estimates of Jewish casualties and that the actual number of casualties was also lower than these estimates put it. To be on the safe side, I have always

rounded up. I have also been "conservative," assuming the higher figure when a lower one is also reasonable, in short, erring toward overrather than under-estimation. The results are still lower than many have held.

The Jewish population on the eve of 1648

More is known about the Jewish population of pre-1648 Red Rus' than about any other region. Maurycy Horn made a careful study of the Jewish population in this region during the pre-Khmel'nyts'kyi period. He came to the conclusion that there were about 45,000 Jews living in towns and 9,000 in villages.¹⁰ It is tempting to use relatively reliable data such as the ratio of the Jewish to non-Jewish urban population in Red Rus' to generalize for all of the Ukrainian lands. However, this region was the most developed of these regions, and it was probably the most densely populated by Jews. It would not be wise to generalize from it or use it as a model for estimating the size of Jewish communities in other regions.

Less is known about the Volhyn region. The most important source is a house-count made in 1629 and analyzed in the works of Baranovych.¹¹ In the lists preserved from that count, there is information on 114 cities and towns. However, there are reports on the number of Jewish homes in only 12 of these towns. Apparently there was no requirement to list Jewish houses separately, and it was by chance that this data was preserved in these locations. These communities were not the largest or most important ones.¹² Since these counts were taken for tax assessments, there was no doubt some under-counting.¹³ At the same time, there is a limit how much Jewish householders could hide from tax authorities. The error, if it exists, would probably be measured in tens of percents. Though partial, this data is still useful.

Baranovych's data leaves much to be desired. But since no reliable documentary sources for the "true" number of Jews in the Ukrainian communities have survived – they probably never existed – we must use what Baranovych gathered, whose materials can be tested, albeit very roughly, by weighing them against a very different kind of source, synagogue architecture. Architectural materials cannot inform us how many Jews lived in a given community, but they can be used to check whether an estimate from some documentary source lies within the realm of possibility. The basis for relying on synagogue architecture is that in all but the very largest Jewish communities in the Ukrainian lands (and in Eastern Europe in general) in the seventeenth century, there was but one synagogue and no independent prayer groups or prayer halls. The common prayer of all the Jewish residents of a community was considered essential for communal discipline, and communal leaders acted energetically to prevent breakaway prayer groups. One of the first complaints against Hasidism later on was that it led to founding separate prayer houses. Accordingly, there is some justification to say that synagogue size directly reflects the number of Jews in a community. The larger, or smaller, the structure, the larger or smaller the community.

This does not mean the number of synagogue seats is the same as the number of Jews in a community. Women did not regularly attend the synagogue; one cannot assume that seats were provided for every woman, and the same is true for children. On the other hand, Jews who were not resident in a community but who lived in the vicinity may have come to the synagogue on holidays and special occasions, and this may have been taken into account when synagogues were built. Poor Jews, and there were many, often could not pay for a seat and made do by standing in the back or in passage-ways. However, despite these problems, it is possible to find a rough multiplier and use it to control Baranovych's data, which, it turns out, may be used cautiously despite its imprecision; the true numbers are also probably somewhat higher.¹⁴ The number of estimable synagogue seats, based on synagogue size, correlates with Baranovych's overall findings. His data is also commensurable with the information achieved by making a "house count."

The relation between a house count, such as the house count of 1629, and the size of the population whose houses were counted is an important one. Here, too, there is need for a multiplier to estimate the size of the families that lived in each house, as well as the number of Jewish servants and additional non-family residents in the household. Householders could be young, childless couples or single adults or families with all the children resident. Shmuel Ettinger suggested five as the multiplier.¹⁵ Raphael Mahler used a somewhat higher multiplier of six in his study of the first real census of Jews that was carried out in Poland, in 1764, with a slightly lower multiplier for specifically the Ukraine.¹⁶ Mahler's data was from more than a hundred years after 1648. Yet there is no evidence that demographic conditions had changed during this period. The data he had for Ukrainian lands was not as detailed as that for Polish regions. Still, he found roughly 5.3 Jews per household in Volhyn, only slightly lower than in Poland. The 3.7 average in the region of Bratslav was indeed different.¹⁷ Yet Mahler

was hesitant to accept the Bratslav data at face value, which meant to assume radically different family patterns distinguishing Jews in central Poland from those in the Ukraine. Besides, the data from Bratslav region lacks detail and cannot be checked for consistency. Mahler therefore assumed there were many inaccuracies and chose to use the same multiplier of six in the Ukraine as he used for Poland. This is reasonable, since demographic data that is strikingly askew from the norm is often too suspect to be reliable.

It is possible to derive a rough estimate of the Jewish population of Volhyn if we give careful consideration to the nature of urban hierarchies. The twelve Jewish communities for which we have house counts from 1629 were not a random sample of the total population and their size also varied. In every urban network there are a limited number of major communities and many more mid-sized and smaller ones. If we have a general idea of how many communities there were in each category and what the average population of communities in those categories was, we can estimate the total population. Errors with regard to figures on smaller communities will not be significant in the total, although the reverse is the case with regard to large communities. Baranovych's data suggests that there were about 170 Jewish homes in large communities, about fifty in mid sized communities. The number varied greatly in small communities.

There were six major communities in the Volhyn region in the mid seventeenth century: Ostroh, Kremianets', Luts'k, Starokonstantyniv,¹⁸ Volodymyr and Lubartow. According to Baranovych's data, in Ostroh there were 229 Jewish homes, in Kremianets' 169, in Starokonstantyniv 130 and in Luts'k 84. He did not find data for Volodymyr, but since in the Hebrew recounting known as *Tit HaYeven* this town was described as equal in size to Kremianets', the number of homes was likely the same or close.¹⁹ In *Tit HaYeven*, Lubartow was recorded as a major Jewish community, somewhere between Kremianets' and Kowel in size. For this community as well, Baranovych found no data. Following the criterion stated above of accepting a fifty percent margin of error, 125 homes would be midway between 169 and 80 and, hence, a reasonable figure.²⁰ In all, there were, it appears, six major or large communities, totaling about 900 homes. As for mid-sized communities, Tit HaYeven lists about twenty of them,²¹ a figure that may conservatively be inflated by about 25% to ensure against underestimating, as well as to encompass communities not listed in *Tit HaYeven*. The total is about 1500 homes. The median number of houses in small communities in Volhyn was 20. Tit HaYeven mentioned about 17 small communities in

Volhyn. Inflating the number here, too, by 25% to account for unknown communities, the total would be about 21 communities with 145 homes. The grand total for all communities in Volhyn is thus about 2700 homes, or households. Using the multiplier of 6, the total Jewish population there would be about 16,000. The real danger in this figure is in underestimating the number of small communities, but at the most, one could add 1,000 Jews to the 16,000.

Podilia is more problematic. The data from the 1629 house count made there has not been published, but Binyamin Lukin has studied this region painstakingly, surveying archival and printed sources. He found references to 36 communities, and concluded that the Jewish population was about 12,000 on the eve of the uprising.²² The same methodology of considering urban hierarchies can be applied to Podilia as was used for Volhyn, although it is not clear whether large communities in both regions were the same size. Podilia had three large communities: Medzhybizh,²³ Bar, and Sataniv. According to *Tit* HaYeven, the three large Podilian communities had fewer Jewish householders than in large communities of Volhyn. However, a house-count for Bar in 1645 showed 64 Jewish householders and 81 Jewish renters.²⁴ The total of 145 heads of households is similar to what Baranovych found for large communities in Volhyn. Lukin found 50 Jewish homes reported in Zinkov in 1642, which is in the range of medium sized communities in Volhyn.²⁵ To be safe, it is best to assume that large communities in Podilia averaged 150 householders each,²⁶ for a total of 450 homes in large Podilian communities. Adding in figures from smaller communities, there appear to have been about 9000 Jews in Podilia.²⁷

Less is known about the Bratslav region. Ettinger found a reference to 66 Jewish homes in Vinnytsia in 1604 and to 18 Jewish homes in Bratslav (the town) in 1616.²⁸ Baranovych stated that in the Bratslav and Kiev regions "Ukrainian Jews were relatively few,"²⁹ estimating that the Jewish population in the Bratslav, Kiev and Czernihov regions was no more than 20,000.³⁰ Using the settlement information for Bratslav found in *Tit HaYeven*, especially its mention and ranking of communities, it appears that like Podilia, Bratslav, too, had three major centers and 16 medium sized ones (the 9 medium sized centers *Tit HaYeven* reports for Podilia may be because the author was illinformed). The number of households *Tit HaYeven* reports for these medium sized centers is not uniform, 100 to 399 householders; it is also high. Relying, therefore, on figures like those of Lukin for Podilia, it appears that the Jewish population of the Bratslav region was similar to that of Podilia, about 9,000.

The Jewish population of the Kiev region seems to have been smaller yet. Ettinger found a reference to 100 Jewish homes in Bila Tserkva in 1646.³¹ *Tit HaYeven* mentions only two major centers there, including Bila Tserkva, and one middle sized community, as well as about 15 smaller ones. This would suggest a population of somewhat less than half of Podilia or Bratslav or in other words, about 5000. In short: about 40,000 Jews appear to have lived in the Ukrainian lands (excluding Red Rus') before 1648.³² What remains to be determined is how many Jews survived.

The Jewish population after the uprising

We will probably never have the precise data on the size of the Jewish population in the Ukraine immediately after the uprising. No population or house lists for the whole region are known to have survived. The impact of the uprising also differed from region to region. Red Rus' was the least affected. Of the 16 major cities at the time according to Horn,³³ only five: Jaworow, Narol, Czortkow, Chelm, and Tarnopol are known to have fallen to the Cossack forces.³⁴ Brody, Belz and Zbaraz, well known communities that were not on Horn's list, were not captured. Apart from the victims in the towns and cities that were captured, there were casualties in cities Khmel'nyts'kyi's forces besieged, but did not take. In distinction from the situation in the Kiev and Bratslav regions, most Red Rus' Jewish communities survived relatively intact. Attempts to calculate the casualties in Red Rus' would be perforce uneven and no attempt will be made here to do so.

Many Volhynian and Podilian Jews survived. These regions suffered more than Red Rus' but less than the eastern regions. Data from internal Jewish tax records indicates that shortly after the uprising, in 1655, Volhynian Jews were paying about a quarter of the entire tax load of Polish-Lithuanian Jewry.³⁵ This is significant. The Jews of the Polish Lithuanian Commonwealth had to pay a lump sum of taxes each year, which the Council of the Four Lands apportioned. This council was a national Jewish organization in which the various Jewish communities ruled by the Polish monarch were represented. In principle the tax was supposed to be a head tax, so that the division should have been a precise reflection of the population and its distribution. Economic factors might skew the ratio of population to taxes, as the Council knew and took into account. Areas with promising economic conditions attracted migrants, leaving some regions with inflated tax bills based on the past. However, these economic conditions changed regularly, so that migration was constant, and short-term imbalances between population and economic potential evened out over time. Jewish communities were also always on the alert, to guarantee they were not required to pay higher taxes than their population warranted. Therefore, in the long run, the ratio of population to tax remained steady, and the share of the total taxes paid does give a rough demographic picture. A quarter share paid by Volhynian Jews, although perhaps exaggerated with respect to the large Jewish populations of Krakow and Podlasia regions, which were not taken into account in the 1655 list, suggests that Volhynian Jewry was not decimated. Had it been, this Jewry never would have paid so large a share of taxes.

External tax records, too, suggest that the destruction of Jewish life in Volhyn was far from complete. Fragmentary data on Jewish poll taxes in Volhyn in the years immediately after 1648 has reference to Jews in 77 towns in Volhyn in the years 1662–1676.³⁶ More communities, in fact, have been located for the immediate post Khmel'nvts'kvi period than for that prior to the uprising, up to twenty-five of them.³⁷ There is also evidence for the speedy reconstruction of Jewish communities in Podilia, most of whose Jewish residents were likely survivors.³⁸ In 1662, there were at least 19 communities plus scattered village Jews. This is somewhat over half of the number of communities that Lukin found for pre-1648 Podilia. We have data on tax payments from some of the Podilian communities in 1662, which was almost a quarter of the total paid by recognized Volhynian communities in that year (975 zloty in Podilia and 4149 in Volhyn). The Podilian list appears to be more incomplete than that of Volhyn, meaning that the Jewish population of Podillia in 1662 was at least a guarter of that of Volhyn. If the post 1648 Jewish population in Volhyn was about half of the pre 1648 Jewish population of 16,000, and there is good evidence for that, we can conclude that the Jewish population in Podilia after 1648 was at least 2,000.³⁹ Lukin estimated the population in Podilia at the time as 1500,⁴⁰ a difference of 500 that is not major. Moreover, these estimates, which imply that the Jews of Podilia suffered much population loss than did those of Volhyn, fit with the picture received from the descriptive sources.⁴¹

Destruction in Kiev and Bratslav was more massive than in Volhyn and Podilia. The peace treaty ultimately signed between the Ukrainian and Polish sides also prohibited Jewish settlement in these regions. There is no reason to believe that every provision of this treaty was observed, but, in fact, no substantial communities were founded or restored in the Kiev and Bratslav regions in the decades after the uprising. The absence of communities in this period does not mean that all the Jews who had lived in them were killed. Some had escaped, for example, those listed in a document drawn on August 16, 1648 (now housed in the Lutsk archive), who had fled from Luszniv, a town in the Zhytomir district of the Kiev region.⁴² Jewish refugees are also noted in Kiev in 1649, although their number and ultimate fate is not clear.⁴³ No doubt, cases like these were not unique. In all, therefore, at least half of Volhynian Jewry, at least a quarter of Podilian Jewry and significant portions of Kievan and Bratslavan Jewry appear to have survived.

Calculating Jewish casualties: Direct calculation

Survivors included not only Jews already on site when the uprising ended but also refugees, converts, and captives sent to Turkey. No primary sources give numbers of refugees. However, indirect information, like the decision at the 1652 meeting of the Lithuanian Jewish Council to support 2000 refugees for a year is instructive.⁴⁴ Some refugees were possibly able to support themselves, swelling this large number. Refugees also made their way to Poland, although the fragmentary remains of the record book of the Council of the Four Lands supplies no numbers. Many refugees fled to what is today Romania, Hungary, Bohemia, Moravia and further west, but their number, too, is unknown. The Jewish population in Poland was about three times larger than that of Lithuania. Normally, population roughly reflects absorptive capacity, suggesting that about three times as many Jews, or six thousand, fled to the Polish lands as to Lithuania. If this estimate is high, the number of Jews who fled to Romania, Hungary, Bohemia, Moravia and further west should compensate for any error. The total number of refugees was thus at least 8,000.

Many Jews converted. *Tit HaYeven* says they did so out of fear. Contemporary non-Jewish sources also refer to conversion, although they say it was rare. A resident of Starodub reported in June 1648 that following the Cossack capture of many cities, there were Jews who converted and themselves joined the Cossack forces; Poles ('liakhovi') were not accepted as converts (to Orthodoxy).⁴⁵ A later report, from December, stated "many Jews converted and live now in the cities together with the Cossacks." Raba cites a Protestant pastor, who reported that the Cossacks killed "... thousands of Jews. Those who remained alive converted to Orthodoxy and are tolerated in the country."⁴⁶ No source known to me gives a precise number of converts,⁴⁷ but the plethora of reports suggests it was at least a thousand. Other Jews were taken captive and sold in Turkey as slaves, ultimately to be redeemed. Natan Hannover exaggerated and spoke of 20,000 captives.⁴⁸ Israel Halperin proposed no precise figure, but his penetrating study concluded that thousands were enslaved⁴⁹ and the number redeemed over 2,000.⁵⁰ One source he cited mentioned 1500 already redeemed with many more waiting their turn.⁵¹ Using Halperin as a base, by contrast to Hannover, a figure of 3,000 seems reasonable, if not cautious.

The total number of estimated survivors is thus about 22,000 - 8,000 in Volhyn, 2000 in Podilia, 8,000 refugees, 1000 converts, and 3000 captives – in all, a bit more than half of the estimated pre-1648 Jewish population in the Ukrainian lands. The number of casualties was thus fewer than 20,000,⁵² perhaps 18,000. If the number of refugees, converts or captives has been underestimated, which is probable, the number of casualties also decreases.

My own estimate of casualties is much lower than the numbers to be found in the Jewish chronicles. However, read carefully, these chronicles provide indirect support for our estimate. The high estimates of loss assume that tragic cases like those of Nemiriv and Tulchin were representative of the fate of all Ukrainian Jews. However, the communities the Jewish chroniclers commemorated were few and usually the same. The authors of the early chronicles were contemporary to the events and from the region. They should have easily been able to add many additional accounts, had they known of them. Their silence suggests there were no additional cases to add, or only a few of them, although admittedly, the chronicles may have had no interest in being comprehensive. External sources, which are fragmentary, add few cases of major destruction to the existing list. This suggests that the many Jews who were undoubtedly killed were killed in small numbers and in many places, but not en mass and not in the major centers of population. This reality fits a more moderate estimate of loss; a high one is reasonable only if many large communities were wiped out. The indelible impression on future generations of the pogroms that indeed did occur should thus not be confused ipso facto with an enormous scope of destruction.

Indirect calculation of Jewish casualties

This conclusion may be compared to what is known about the Jewish population in the Ukraine from the mid-eighteenth century, where the number of Jews there is known. Such backward extrapolation is not precise, but it has its value. For based on a different kind of documentation than that already used, it accords with what was said above and, hence, confirms it, whereas contradiction would suggest error. Once more, commensurability prevails.

In 1764, a census, the first of its kind in Poland-Lithuania, was made of the Jewish population in the Polish Lithuanian Commonwealth (including the Ukraine). According to this census, the Jewish population in Volhyn, Podilia, Bratslav and Kiev (excluding Red Rus') was about 130,000. Mahler suggested that the data from this census should be corrected upwards by about 26% in order to make up for undercounting and include infants,⁵³ raising the total to about 165,000. To get from here to the size of the "source" population, by which I mean those Jews living in 1650, and from whom the Jews of 1764 were descended, it is necessary to go a step forward to the nineteenth century. The annual growth rate for Jews in these regions at this later time was 1.2%.⁵⁴ Applying this rate to the seventeenth century, the result is a "source" population of about 42,000. Sergio Della Pergola has suggested a rate of 1.1-1.2% for the century following 1650 and a rate of 1.5-1.6% for the century following 1765.⁵⁵ This would indicate a source population of about 45,000. Both figures are commensurate with, if slightly higher than, the round number of 40,000 suggested above for the pre-1648 Jewish population.

At first, this figure seems impossible, for it implies there were no casualties at all in 1648. Yet not all of the later population descended from survivors. The population in 1764 included migrants or first generation residents of the Ukrainian lands. The larger the size of this group, the lower the number of survivors. It seems that the bulk of the 45,000 Jews in the Ukraine following 1648 were survivors, including refugees who had returned home, however bittersweet this return must have been. Many of the refugees had left behind property or had ties with Polish noble landowners. Restored quiet also brought with it the hope for reestablishment in a familiar setting. At the same time, there was little reason for immigration by newcomers. The economic potential of the Ukraine was not immediately obvious, and, elsewhere, once the terrible years of the Polish-Swedish and Polish-Muscovite wars had ended, many economic opportunities opened up, elsewhere. It is not surprising, therefore, that references to significant immigration of Jews from other parts of the Polish-Lithuanian Commonwealth to the Ukraine in the first years after the uprising do not abound. Whatever immigration there was, it seems, was internal, for instance, from places

like Red Rus' (Ruthenia), where relatively more Jews had survived, to other Ukrainian lands now short of manpower. 56

This conclusion is bolstered by data from taxation. In 1662, the Podilian Jewish communities paying the highest taxes were Kamianets' and Jazloiwets', both cities that Khmel'nyts'kyi' had not captured.⁵⁷ Bar had been a major community before the uprising, but it no longer paid substantial taxes. According to the chronicles, it was destroyed by Khmel'nyts'kyi.⁵⁸ This suggests that communities which could not rely on survivors had a slow recovery and did not attract immigration. Jewish communities in towns that had not fallen in the uprising recovered, like the towns themselves, more quickly and were being taxed accordingly.

Internal Jewish documentation, too, suggests that the number of Jewish migrants to the Ukrainian lands in the post 1648 years was limited. The Jews of Poland had to pay a yearly "poll tax." This was collected by the Council of the Four Lands, the umbrella organization of the Jewish communities of Poland. This council assigned a quota or share of the tax load to each Jewish community and region. There were unquestionably attempts by powerful communities to push a disproportionate share of the tax load onto weaker communities. However, such attempts had their limits, allowing the use of the tax division roughly to indicate population distribution. Omitting the exceptional unexpected large fluctuation in payments from specific communities, it is possible to follow the changing share of the tax load that Volhynian Jews paid. According to available scattered records, Volhynian Jews paid about 11% of the total tax load of Polish Jewry in 1569, but only about 6% in 1578.⁵⁹ However in 1655, only a few years after the uprising, Volhynian Jewry was already paying 15%, to retreat in 1714 to about 11% and again, in 1715, to 9%.⁶⁰ Alternately, other sources, put the share in 1678 at 11%, decreasing in 1680, to 10%, and, in 1718, back up to 14%,⁶¹ all in all, a slow but steady increase, suggesting a stable and slowly recovering population. Large-scale immigration into Volhyn before 1740 should have been accompanied by a dramatic increase in this region's share of total internal Jewish taxation.⁶² Possibly, there was a large influx in the years immediately following the uprising. But if this unlikely scenario did occur, it just as quickly reversed itself, leaving no trace in the records of taxation.⁶³

Finally, there is linguistic evidence. The existence of a distinct dialect of Ukrainian or South Eastern Yiddish is well known and it has long been recognizable. Dialects are not created overnight. Had there been a massive influx of Jews from Central Poland or from Lithuania, they would have brought their characteristic dialects with them, and the language of their descendants would have closely resembled that used in their regions of origin. To claim that there were many migrants in the mid-seventeenth century and that their descendants quickly created the dialect of Ukrainian Jewry is forced.⁶⁴ Rather, the Ukrainian Yiddish dialect must have been used continuously, another indication that the majority in the Jewish population was survivors.

The source population from which the 165,000 Jews of the 1764 census were descended was thus largely one that had been born and bred in Ukrainian lands. These Jews were not necessarily back in the Ukraine by 1662, when the tax records begin. The flow or returning refugees was likely slow, commensurate with a population that could afford little in taxes, but returned nevertheless in the hope of recouping losses. Immigration was low. And external cultural influences that might make themselves felt in variations in the local Yiddish dialect were secondary factors at best, confronting a homogeneous pre-existing Ukrainian Jewish cultural mold.

Conclusions

The number of Ukrainian Jews (not including Red Rus') who died during the years of the uprising led by Bogdan Khmel'nyts'kyi thus appears to be no more than 18,000–20,000 out of a population of about 40,000. It was certainly a large number by any standard and the sense of shock and horror it engendered is unquestionable. Yet not all of those who died were killed by the Ukrainian forces. Tatars allied with the Ukrainians were responsible for many of the victims, although how many is not known. Many Jews also died from disease and epidemics, malnutrition and other "non violent" forms of death. This number could easily have been equal to the number murdered.⁶⁵ All the observers say these numbers were substantial, but translating this notion into numbers is not possible.

What then of the many survivors, 50% and possibly more of the original Ukrainian Jewish population? Much work remains to be done before a real answer is achieved, but the following may be said. The Jews soon enough, if not immediately, recognized the danger and took steps to save themselves. Jewish chronicles report Jews fighting to defend besieged towns. However, most Jews resorted to flight, which is the real reason why so many survived, to return slowly when calm was restored. Within a century, the demographic impact of the uprising was

hardly visible. The chronicles, true to their purpose of evoking emotion and repentance, omit mention of this reconstruction.

The number of Jewish lives lost and communities destroyed was immense. However, the impression of destruction was greater than the destruction itself. Had Khmel'nyts'kyi intended to slaughter Jews indiscriminately and as an end unto itself, the number of victims would surely have been higher. What made the destruction loom so large was the knowledge that so many communities no longer existed. The Jewish chroniclers wanted to memorialize a lost world. The mid-seventeenth century was a terrible time for everyone in the Ukrainian lands; Jews were not the only ones to die, but they did suffer more than others. What this "suffering" meant in specifics this essay has tried to outline. Its conclusions, thanks to the nature of the available sources, are perforce tentative. Nonetheless, the overall picture, the commensurability of the various tentative trials, leads to a measure of certainty that these conclusions will bear the test of time and, even more, the test of future, hopefully more precise, investigation.

Notes

- Points in this essay are dealt with more expansively in my forthcoming book, tentatively titled *Counting the Losses*, to be published by the Harvard Ukrainian Research Institute. I wish to thank Gershon Bacon, Yaron Ben Naeh, Yerachmiel (Richie) Cohen, Alexander Feldman, Ted Fram, Jacob Goldberg, Gershon Hundert, Ilya Kabanchik, Benjamin Lukin, Adam Manikowski, Jadwiga Muszynska, Barbara Pendzich, Yohanan Petrovsky, Moshe (Murray) Rosman, Wladyslaw A. Serczyk, Kenneth Stow, Adam Teller, Olexiij Tolotchko, Scott Ury and Henri Zukier for their help in the preparation of this paper. I owe a special debt to Mrs. Goldie Stampfer (my mother and favorite proofreader), Joel Raba (Tel Aviv), Zenon Guldon (Kielce) and Mykola Krikun (Lviv) as well as to Sarah Stampfer.
- 2. Many of the terms used in this seemingly simple first sentence are fraught with complications, for instance, "Ukrainian," which is an oversimplification, since communities in Belarus, Moldova and other areas were also affected. The Jewish communities involved did not necessarily see themselves as Ukrainian, since at the time the Polish crown ruled them. "Uprising" is equally problematic, suggesting a popular movement. The first stages of the violence may possibly have been better defined as a mutiny, and in the later stages, much of the damage was caused by Tatar mercenaries and not by "the people." The mercenaries were quite willing to turn on the Ukrainian masses whenever they felt like it. Yet there is no alternative to selecting the clearest terms, even if they fail to account for all possible complications.
- 3. See most especially the wealth of sources enabling broad research in Joel Raba Between Remembrance and Denial \setminus The Fate of the Jews in the Wars of the

Polish Commonwealth During the Mid-Seventeenth Century as Shown in Contemporary Writings and Historical Research (Boulder, Colorado, 1995). See, too, C. Shmeruk "Yiddish Literature and Collective Memory – the Case of the Chmielnicki Massacres," Polin 5 (1990), 187–197, and the diss. of Jakob Schamschon, Beitraege zur Geschichte der Judenverfolgungen in Polen waehrend der Jahre 1648–1658 (Bern, 1912).

- 4. The most detailed of the chronicles, Shmuel Feibish b. Natan's *Tit HaYeven* (Venice, n.d.) describes Khmel'nyts'kyi's slaughter of Jews as his forces moved from town to town. The title page is undated, but the time is probably the late seventeenth century.
- 5. Jewish chronicles offer wildly varying estimates of the number killed in 1648– 1650, which, in fact, must be extrapolated from the texts that give no explicit totals. Most popular is Natan Hannover, Yeven Metsula, trans. Abraham Mesch, Abyss of Despair (New York, 1950; reprint with original pagination, New Brunswick, 1983). Bernard Weinryb, who himself puts the number at about 40–50,000, reports that Hannover indicates more than 80,000, Shmuel Feibish, Tit HaYeven, implies 670,000; Bernard Weinryb, The Jews of Poland (Philadelphia, 1972), 194, 197. The Council of the Lithuanian Jewish community more modestly spoke, in 1650, of "several tens of thousands" (Ibid, 102). See Gershon Bacon's essay, here, on modern Jewish historiography and its evaluation of events and Weinryb, "The Hebrew Chronicles on Bohdan Khmel'nyts'kyi and the Cossack-Polish War," Harvard Ukrainian Studies 1:2 (1977), 153-177. Jaroslaw Pelenski made perhaps the lowest estimate, roughly ten thousand. He wrote "... on the basis of comparative analysis, I wish to suggest that the number of Jews killed in the Khmelnytsky revolution amounted either to a minimum of 6,000 to 7,000, one-tenth of the figure offered by Hannover, or to a maximum of 12,000 to 14,000, approximately one-fifth of the figure claimed by Hannover." See Pelenski "Cossack Insurrections in Jewish-Ukrainian Relations," in Ukrainian-Jewish Relations in Historical Perspective (Edmonton, 1990), 31–42, esp. 36. Pelenski's estimate is cited in the recent survey article by V. A. Smolii and V. S. Stepankov ("Ukrainska natsionalna revolutsia 1648–1676 kriz prizmu stolit," Ukrainskij Istorichni Zhurnal 418 (1998), 17, including extensive bibliography.
- 6. See the study of Rosman, here.
- See on this problem, Edward Fram "Creating a Tale of Martyrdom in Tulchin, 1648" in Elisheva Carlebach, ed., *Jewish History and Jewish Memory* (Hanover, NH, 1998), 89–112, and Fram, "And Still a Gap Remains between 1096 and 1648–1649," *Zion* 62.1 (1997), 31–46, esp. 41–46.
- See M. Nadav "Khilat Pinsk b'tkufa she'm'gzeirot TaKh-TaT ad shlom Andrushov (1648–1667)," Zion 31 (1996), 153–196 and M. Rosman's article in this volume.
- 9. See Borovoi A. Z. et al., eds., Dokumenti ob osvoboditlenoi voine ukrainskovo naroda (Kiyev, 1965), 100. A letter by an eyewitness at Bar wrote that the attackers killed "kilkanascie Niemcow w zamku z Zydami." The word "kilkanascie," which means "some" or "a few" could apply to the Germans (Niemcow) alone, or to the Jews as well. This is far from Hannover's chronicle, Yeven Metsula, 80. Certainly not all the nobles were killed because one of them wrote the letter!

SHAUL STAMPFER

- Maurycy Horn, Zydzi na Rusi Czerwonej w XVI i pierwszej polowie XVII (Warszawa, 1975), 75.
- 11. O. Baranovych, Zaliudnennia Volhynskoho Voevodstva v Pershij Polovyni XVII St. (in Ukrainian) (Kiev, 1930), and Ukraina Nakanune Osvoboditelnoi Voiny Serediny XVII v. (in Russian) (Moscow, 1959). An obituary of Baranovych, one of the few scholars who risked publishing data on Jews in the 1950s, appears in Istoria SSSR 5 (1961), 172.
- 12. Baranovych also brings data, *Ukraina Nakanune*, 106, for Kiselin: 37 Jewish homes out of 72; but as he notes in *Zaliudnenia*, 80, that the data is not from 1629, rather 1648.
- 13. On the problems in this account, see Irena Gieysztorowa, Wstep do demografii staropolskiej (Warsaw, 1976), esp. 185–186.
- 14. My forthcoming book expands on this subject.
- Shmuel Ettinger, "Jewish Participation in the Colonization of Ukraine (1569– 1648)" (in Hebrew) Zion 21 (1956), 107–142.
- Raphael Mahler, Yidn in Amoylikn Poiln in Likht fon Zifern (in Yiddish) (Warsaw, 1958), 182, and see Table VIII.
- 17. Mahler seems to have erred arithmetically and calculated on the basis of his data in table VIII (=#66). I calculated 3.64, which rounds off to 3.6. This makes absolutely no difference.
- 18. This city was sometimes regarded as in Volhyn and sometimes as in Podilia.
- 19. The number of householders in *Tit HaYeven* seems unreasonably high. However, the relative size of populations the author attributes to different communities seems quite reasonable. For example, *Tit HaYeven*, states that there were 1500 Jewish householders in Ostroh (which would mean a Jewish population of close to ten thousand) and 800 in Kremianets'. This is a ratio of about two to one. According to Baranovych, there were 229 Jewish homes in Ostroh and 169 in Kremianets', a ratio of 1.4 to 1, not identical, but similar. *Tit HaYeven* puts the ratio between the Jewish populations of Kremianets' and Kowel also at two to one. The ratio from Baranovych's data is the nearly identical 2.1.
- 20. Kowel, which was not regarded in Jewish sources as a major community, had 80 Jewish homes according to Baranovych Ukraina Nakanune, 106.
- 21. I included all the communities to which *Tit HaYeven* ascribed populations of 200–300 householders and half of those to which the author ascribed 100 householders. Of the first group, two are also found in Baranovych's list; Tuchin (50 homes) and Dubno (58 homes). Of the 13 communities described in *Tit HaYeven* as having 100 householders, Baranovych mentioned three. Morawica has 24 Jewish homes, Ostrozek 55 and Kamin 12. It seems that most of the towns in this group has significantly smaller Jewish populations than the first group.
- 22. Benjamin Lukin generously allowed me to read his essay in proofs, "The Bush that was not Consumed" (in Russian) which has now appeared in 100 Evreiskikh Mestechek Ukraini/Istoricheskii Putevoditel (2nd, corrected edit., St. Petersburg, 2000), which he edited together with Boris Chaimovich. See pages 20–23 for lists of the 36 communities, the sources for them and the basis for the calculations. The estimate for 20,000 for Podilia (Podilia) and Bratslav (half in each) is on page 34 of the second edition.

224

- 23. According to *Tit HaYeven*, there were 10,000 Jewish refugees were in Kamieniets when it was besieged by Khmel'nyts'kyi, an unlikely high figure, probably the product of typographical error.
- 24. Zenon Guldon, Zydzi i Szkoci (Kielce, 1990), 121 citing archival sources. The distinction between householder and renters bears attention. If indeed, most Jews in most house counts were not recorded as householders, then estimates must take this into account. This distinction was not recorded elsewhere, and there is no way to confirm it, hence, it is not taken it into account here.
- 25. Benjamin Lukin, Evreiskikh Mestechek, 24.
- 26. This is what we found in Bar, which may have been an "average" large community. Conveniently, this was also the size of the average large community in Volhyn.
- 27. If the ratio of large communities to middle sized and small ones was the same in Podilia as in Volhyn (1:5:4), that would give 15 medium sized communities (750 homes) and 12 small communities (240 homes). This in turn generates the estimate of about 9000 ($6 \times 1440 = 8640$). This is 25% less than Lukin's estimate. However, Lukin assumed a rural population of 20% that he added on to his estimate for urban population. I am not convinced that there was such a large rural population at this time.
- 28. S. Ettinger, "Jewish Participation."
- 29. He added "They lived mainly in the northern regions of the Kijow and Bratslav [provinces] and in some towns of the Chernihov province." M. Horn, "Struktura Wyznaniowo-Narodowosciowa Mieszczanstwa na Ziemiach Ukrainskich Korony w Latach 1569–1648," *Studia z Filologii Rosyjskiej i Slowianskiej* (Warszawa, 1984) 14, 67–84. The citation is from page 75. Ksiegarnia Neustein in Tel Aviv made this important article available to me.
- 30. A. Baranovych Ukraina nakanunye, 108. Maurycy Horn, "Rozwoj Demograficzny," 76. Horn cites Baranovych but changes the 'no more' (ne bolee) in Baranovych to 'about' (na okolo) in his paraphrase.
- 31. Ettinger, "Jewish Participation," 123.
- 32. This is based on estimating 16,000 Jews in Volhyn, 9,000 Jews in Podilia, 9,000 in Bratslav and 5,000 in Kiev, 39,000 rounded to 40,000. Ettinger's estimate for the same region was 51,325; Ettinger, "Jewish Participation," 124.
- 33. According to Horn, "Rozwoj Demograficzny," the major communities in this region before 1648 were: Lwow, Jaworow, Zolkiew, Przemysl, Sambor, Tarnogrod, Lipsk, Narol, Tomaszow, Uhnow, Czortkow, Halicz, Tarnopol, Lubomyl, Chelm, and Zamosc.
- 34. Pinkas HaKehilot and Slownik Geograficzny Krolestwa Polskiego show that Jaworow, Narol, Czortkow, and Chelm and Tarnopol fell, though in the latter case, most of the Jews managed to flee. Lwow, Zolkiew, Przemysl, Sambor, Tomaszow and Zamosc did not fall. Data is lacking for Tarnogrod, Lipsk, Uhnow, Halicz, and Lubomyl.
- 27, in fact. *Pinkas Vaad Arba Aratsot*, ed., Israel Halperin (Jerusalem, 1945), 87, 88.
- 36. Zenon Guldon, "Zydzi na Podolu i Wolyniu po zniszczeniach z polowy XVII wieku," in Zydzi i Szkoci, 109–126, esp. Table 6 on, 114.
- 37. See the references to the varied archival sources in my forthcoming monograph.

- 38. *Ibid* Table 10, 118. See also Benyamin Lukin, *Evreiskikh Mestechek*, 28. It is not clear if the towns in both lists were the same. The issue of the geographic background of the Jewish population in the post uprising Ukrainian lands is discussed below.
- 39. Our estimate of the pre 1648 population of Volhyn was 16,000. If half survived in Volhyn, this would be 8,000. A quarter of this is 2,000.
- 40. Benyamin Lukin, Evreiskikh Mestechek, 28.
- 41. On this region in the year after the uprising and subsequently see Moshe Rosman Founder of Hasidism (Berkeley, 1996), esp. 49–62, who notes that much of the decline of Podilia took place after 1672 (52) and not necessarily as a result of the destruction in 1648–1650.
- 42. See the archive of the Lutsk 'Grodski sud' (f.11 o,1 spr.14 arc. 72-73 akt 501) as cited in the internal guide to microfilms of this archive Central Archives of the Jewish People, Jerusalem (= Perelik...) #525 21, August, 1651.
- Joachim Jerlicz describes how a group of Jewish refugees "were stripped naked, maimed, beaten and released thanks to the Metropolitan's intervention," in ed., K. W. Wojcicki, *Latopisiec albo kroniczka Joachima Jerlicza* (Warsaw, 1853), 94, 95, cited and translated by Raba, 83.
- 44. Pinkas Hamedina, ed., Shimon Dubnov (Berlin, 1925), 110.
- Regesty i Nadpisi vol. I (St. Petersburg 1899) #880, 401 citing Akty Yuzh. i Za. Ros. v. III, 215. On the source of the report see Raba, 129. The reliability of this 'reporter' is not known.
- This is Raba's translation from F. Babinger, ed., Conrad Jacob Hiltebrandt's... (Leiden, 1937), 88. See Raba, 135.
- 47. See most recently, Edward Fram, "Between 1096 and 1648–1649: A Reappraisal" Zion 61 (1996), 159–182, and the subsequent exchange between Prof. Jacob Katz and Fram entitled, respectively, "More on 'Between 1096 and 1648–1649'" and "And Still a Gap Exists between 1096 and 1648–1649" in Zion 62 (1997), 23–46 (in Hebrew).
- 48. Hannover, Yven Metsula, 45. It seems very likely that a systematic study of references to Jews from the Ukraine in Jewish (and non-Jewish) sources in Turkey would be fruitful. I benefited from the wide-ranging knowledge of Dr. Yaron Ben Naeh on Ottoman Jewish communities who showed me the rich potential of this literature.
- I. Halperin, "Sheviya ufedut begezeirot Ukraina..." in his, Yehudim VeYahadut BeMizrach Eiropa (Jerusalem, 1968), 212–249, esp. 227.
- 50. Ibid., 240.
- $51. \ Ibid., \ 236.$
- 52. This figure does not take into account casualties in Red Rus', Poland and Lithuania, but since the fighting there occurred long after the outbreak of the uprising, Jews in these regions had time to assess the danger and flee.
- 53. Mahler, 31 and 41.
- See on this Shaul Stampfer, "The 1764 Census of Polish Jewry," in ed., Gershon Bacon and Moshe Rosman, *Bar Ilan* (Annual of Bar-Ilan University) (Ramat Gan, 1989), 24–25, 55 and also 47.
- 55. See his forthcoming, "Some Fundamentals of Jewish Demographic History" in ed., R. J. Desnick, *Jewish Genetic Disease* (New York, scheduled 2003).

226

- 56. See the evidence brought by Lukin, 100 Evreiskikh Mestechek Ukrai, 43–35, for local, short range immigration from Red Rus'.
- 57. Hannover, 83. The question of the pre-1648 community of Kamianets' is too complicated for analysis here.
- 58. See, however, the source brought by Borovoi above.
- 59. Data on sixteenth century taxes are found in Table 1 (94) in Z. Guldon and J. Wijaczka, "Die zahlenmaessige Staerke der Juden in Polen-Litauen im 16–18 Jahrhundert" in *TrumaH*(!) 4 (1994), 94, describing the sources of the data in detail.
- 60. See Israel Halperin, *Pinkas Vaad Arba Aratsot*. For data on 1655 see, there, 88, and for 1714, 505. Dr. Yehudit Kalik informed me, in an oral communication, that her data on taxation shows relative stability for the payments of Volhynian Jewry.
- See Yoel Raba, "The Volhyn Regional Committee in 1700," (in Hebrew) Gal Ed 6 (1982), 218.
- 62. Alexander Feldman raised the possibility that in this case, as in others, that the payments referred to moneys collected from refugees, not individuals who actually lived in the region.
- 63. In 1753, Volhyn Jewry paid 27% of the total tax load of Council of the Four Lands though in 1764 this percentage went down again. At first glance, this suggests substantial in-migration at this time. In the same year, the Posen region and the Red Rus region paid remarkably little (Halperin, *Vaad*, 512). This fact needs explaining. There is little reason to assume a dramatic drop in their population that year, which was largely redressed by 1764. These short term, and extreme, shifts were probably more a reflection of creative bookkeeping than an issue of population.
- 64. This analysis was corroborated by Prof. Dovid Katz, currently of the Vilnius University in a private communication in March 2002.
- 65. It is worth noting that the general population of Poland declined significantly in the second half of the seventeenth century, largely due to malnutrition, disease, and other non-violent death. See J. Topolski "Wplyw vojen polowy 17 wieku na situacje ekonomiczna: przyklad Podlasie," 125–166, esp. 136–139, in his Gospodarka Polska a Europejska w 16–18 wieku (Poznan, 1977).