

# UC Irvine

## UC Irvine Previously Published Works

### Title

Size and ethnicity of Estonian towns and rural districts, 1922-1979

### Permalink

<https://escholarship.org/uc/item/2v84z2j7>

### Journal

Journal of Baltic Studies, 13(2)

### ISSN

0162-9778

### Author

Taagepera, Rein

### Publication Date

1982-06-01

### DOI

10.1080/01629778200000121

Peer reviewed

## SIZE AND ETHNICITY OF ESTONIAN TOWNS AND RURAL DISTRICTS, 1922-1979

*Rein Taagepera, University of California, Irvine.*

Unprecedented leaks of non-published 1979 census data enable us, for the first time since World War II, to analyze the ethnic composition changes in the Estonian towns and rural districts. The objective of this article is to present comprehensive data tables, based on the recent leaks, earlier published census data (1922, 1934, 1959, 1970), and interpolations.

The Soviet administration in Estonia has been quite diligent in collecting and analyzing demographic data even on the local level, but has been remarkably reluctant about publishing them. After some relaxation in the 1960s, secretiveness increased again in the 1970s. The only postwar date for which all town and rural district population figures are available from a single source seems to be 1965.<sup>1</sup> For urban areas only, complete lists have also been published for 1959 and 1969,<sup>2</sup> but I am not aware of any compact publication of 1970 census figures or any later estimates. Populations of individual urban centers are given in the individual articles on them in the *Estonian Soviet Encyclopedia* (ENE), with dates scattered from 1969 to 1976. For rural districts (which acquired the present boundary lines essentially by 1965) population listings are available for as late as 1975 and 1976.<sup>3</sup> For major cities more data are available.<sup>4</sup> Regarding national or ethnic composition the detail in the official information is limited to separate tabulation for three categories—rural, urban, and Tallinn—for 1959 and 1970.<sup>5</sup> For the 1979 census, only the republic-wide composition had been published by the end of 1981, plus bits and pieces on Tallinn.<sup>6</sup>

Unprecedented leaks through unofficial channels, however, have recently compensated for data withholding by the Soviet administration in Estonia. One list, published in *Eesti Päevaleht* and other exile newspapers, includes total populations for twenty-one main cities and towns as well as their Estonian and Russian components.<sup>7</sup> Some other lists refer explicitly to an official but apparently non-public Soviet report, *Itogi perepisi naseleiniia po Estonskoi SSR*

1979 g.<sup>8</sup> They include data on male/female ratio in 1979, population growth ratio 1979/1970, and the percentage of Estonians in 1979, for all fifty-seven urban-type centers and the fifteen rural districts. Unfortunately, no absolute population sizes are listed. However, the 1970 figures can be interpolated from scattered official data, and then all other absolute figures can be reestablished for every single district and townlet. For entities which existed prior to 1970, comparisons become possible with the very detailed 1922 and 1934 census results published by the independent Republic of Estonia.<sup>9</sup> It should be repeated that no such comparison (below the rural-urban-Tallinn level) was possible between the prewar population and the postwar one for *any date whatsoever* before the recent data leaks.

Establishing comprehensive comparative tables for the period 1922-1979 is a task which requires elaborate interpolations. Given the volume of this task alone, the detailed analysis of the data will have to be left for a separate paper.

### *Republic-Wide Overview*

Table 1 shows the total population within the present boundaries of the Estonian SSR, and its Estonian, Russian, and the remaining "Other" components in the censuses of December 1922, March 1934, and January (in all three years) of 1959, 1970, and 1979. The same data are shown also separately for Tallinn, other urban centers, and rural areas. Except for the ethnic composition in rural and non-Tallinn urban areas in 1979, all figures shown are based on officially published census data. The "Other" category involved in 1934 mainly Germans (16,000), Swedes (7,600), Latvians (4,000), and Jews (4,400). Figures were similar in 1922. In 1970 (and also in 1959 and 1979) it involved mainly Ukrainians (28,086 in 1970), Finns (18,537), Belorussians (18,732), Jews (5,288), and Latvians (3,286).

Very detailed data are available for 1922 and 1934 for the territory of the Republic of Estonia and also the somewhat smaller territory of the predominantly Estonian districts as they existed during the Tsarist 1881 census. The present ESSR territory is intermediate between these two.<sup>10</sup> While the 1922 and 1934 urban-rural distribution corrected for postwar borders has been published in Soviet sources, the corrected ethnic composition has not. Numbers presented here in parentheses are estimates (based on assumptions stated in Table 1, Note a). The reason for giving them here is to supply some republic-wide background for the more exact figures available on individual towns.

Table 1 further shows the population growth ratio from 1970 to 1979 (which will be useful for comparison with ratios for individual cities and districts). The average yearly percent growth rates for 1959-70 and 1970-79 are also shown, since trends during the last few decades are of special interest, and since unequal inter-censal periods (eleven years and nine years, respectively) make direct comparison of these periods difficult. Growth rates have clearly decreased from the 1960s to the 1970s for all three ethnic categories in Tallinn

Table 1  
Size and Ethnicity of Urban and Rural Populations  
within the Present ESSR Borders

ESSR	Population (in thousands)			Ratio <sup>c</sup> P (1979)/ P (1970)	Average % growth per year <sup>f</sup>		
	1922 <sup>a</sup>	1934 <sup>a</sup>	1959 <sup>b</sup>		1970 <sup>c</sup>	1979 <sup>d</sup>	1959-70
Total	1044.1	1061.3	1196.8	1356.1	1465.8	1.14	0.87
Estonians	(958)	(982)	892.7	925.2	948.6 <sup>j</sup>	0.32	0.27
Russians	(51)	(43)	240.2	334.6	409.2 <sup>j</sup>	3.06	2.27
Other	(35)	(36)	63.9	96.3	108.0	3.80	1.28
% Estonian	(91.8%)	(92.5%)	74.6%	68.2%	64.7%		
Tallinn <sup>i</sup>							
Total	127.6	152.9	281.7	362.7	428.7	2.33	1.88
Estonians	106.4	130.7	169.7	201.9	222.2	1.59	1.07
Russians	21.2	8.9	90.6	127.1	162.7	3.13	2.78
Other		13.3	21.4	33.7	43.8	4.22	2.96
% Estonian	83.4%	85.5%	60.2%	55.7%	51.9%		
Other Urban							
Total	169.6	189.5	393.8	518.5	593.6	2.53	1.52
Estonians	(136)	(163)	248.6	304.4	337.8 <sup>g</sup>	1.85	1.16
Russians	(34)	(14)	117.2	171.7	(211) <sup>h</sup>	3.5	(2.3)
Other		(13)	28.0	42.3	(45) <sup>h</sup>	3.8	(0.6)
% Estonian	(80.2%)	(86.0%)	63.1%	58.7%	56.9%		
Rural							
Total	746.9	718.9	521.3	474.9	443.5	-84	-76
Estonians	(716)	(688)	474.4 <sup>k</sup>	418.7	388.6 <sup>g</sup>	-1.12	-83
Russians	(31)	(20)	32.4	35.8	(36) <sup>h</sup>	+91	(0)
Other		(10)	14.5	20.4	(19) <sup>h</sup>	+3.15	(-1.2)
% Estonian	(95.9%)	(95.7%)	91.0%	88.2%	87.6%		

## Sources:

- a: *Nõukogude Eestri* (1978), 41 (see Note 3) for rural and urban totals. For Tallinn (including Nõmme), *Rahvastikuprobleeme Eestis*, 5 and 24 (see Note 9). Figures in parentheses are estimates based on data in *Rahvastikuprobleeme*, 5, 7, 23-24, which pertain to the Republic of Estonia (the total population of which exceeded that of the ESSR territory by 62, 800 in 1922 and 65,100 in 1934) and the 1881 census territory (with population smaller than that of ESSR by 44,800 in 1922 and 42,900 in 1934). My estimates assume that the areas lost in 1945 had a 1934 population of about 50,000 Russians, 12,000 Estonians and 3,000 others (including 1,470 Latvians). Probable error range is plus or minus 5,000.
- b: ENE, II, 72 (see Note 5).
- c: *Itogi 1970*, IV, 317-20 (see Note 5).
- d: Rural and urban totals from *ENSV rahvamajandus 1979. aastal* (Tallinn: Eesti Raamat, 1980), 14. Tallinn data: sum of four city districts, in *Päevaleht* (see Note 7). ESSR ethnic groups: figures in *Naseleties SSR* (see Note 6), adjusted upwards to yield the correct total.
- e: From 1970 and 1979 data.
- f: Calculated as  $100 [P(t_1)/P(t_0)]^{1/n}$ , for n-year interval.
- g: Calculated from the % Estonian in rural (87.6%) and urban (54.7%, including Tallinn) population, in *Itogi ESSR 1979* (see Note 8).
- h: Estimated on the basis of known sum of Russians and Others, and their distribution in 1970.
- i: The 1922 and 1934 figures include Nõmme (5,150 in 1922; 15,105 in 1934) which became officially part of Tallinn in 1940. In 1979 Tallinn's population was 428,687 and was 51.9% Estonian; some sources have 441,800 and 51.5% because they include the nearby Maardu and Saue townlets which are administratively subordinated to Tallinn rather than a rural district. Thus in *Päevaleht* the sum for the Tallinn district figures falls short of the total they list for Tallinn. In this article Maardu and Saue are always listed separately, and figures for Tallinn exclude them.
- j: Total ESSR population in 1979 was 1,465,800, but ethnic composition was reported on a basis of 1,464,476, presumably because 1,300 people failed to indicate their nationality. Here the reported figures on Estonians (947,812) and Russians (408,788) have been increased by 800 and 400, respectively, to agree with the actual total.
- k: ENE, II, 72 has a misprint (447,388). The correct figure (474,388) is confirmed by *Rahva Hääli*, 18 May 1971.

and in other urban areas.<sup>11</sup> In the countryside the outflow of Estonians has slowed down slightly, and the previous increase in the Russian and Other population has reversed itself. The countryside has remained overwhelmingly Estonian, a fact which has implications ranging from symbolic control of territory to potential guerrilla capability.

In the fifty-six year perspective (December 1922 to January 1979), rural population decrease has never stopped, although the change was much faster during the troubled period of 1934-59 (and in particular 1941-50). The complementary increase in the urban Estonian population also has been continuous and considerable, although it has been overshadowed by the drastic increase in the Russian component. In the urban areas outside Tallinn the Estonian share of the population has fallen from more than 80% to less than 57%, but this figure hides tremendous town-to-town variations to be discussed in the next section.

The increase in the ethnically Estonian population has been slower in Tallinn than in other urban areas over the fifty-six years and has lately almost stopped. In contrast the increase in Tallinn's Russian population has continued in the 1970s almost at the same high rate as in the 1960s, while Russian influx into other urban areas has slowed down. Among the three population locations with approximately equal numbers (Tallinn, other urban, and rural), Estonians have been losing ground the fastest in Tallinn since 1959 and also compared to 1934.

Marked changes have taken place in the "Other" category, and not only during 1939-1949 when the Germans and Swedes left, the Finns came, and the Ukrainians and Belorussians started to arrive. In 1959-70 Others were the fastest-growing group, both in the cities and in the countryside, largely due to the Ukrainians (5.4% per year increase) and Belorussians (5.0% per year). In 1970-79 the relative increase for Ukrainians (2.8% per year) and Belorussians (2.4% per year) continued to surpass that of the Russians (not to mention the Estonians), but the remaining small ethnic groups remained stable at 44,000.<sup>12</sup>

### *Larger Urban Centers*

Table 2 shows the population growth in the twenty-two cities and towns with more than 5,000 inhabitants in 1979, plus two smaller towns, which were centers of rural districts. The locations are listed in the order of population size in 1979. Table 3 shows the ethnic composition for the same urban centers, in 1934 and 1979, as well as the male-female ratio for 1979. The location of all urban centers is shown on the map in Figure 1.

The largest five cities are subordinated directly to the republic government, and so is the much smaller Sillámäe, due to its uranium mining (which is not officially admitted). Maardu is administratively subordinated to Tallinn, and Kiviõli to Kohtla-Järve. The remaining towns are subordinated to rural districts, and most of the towns are administrative centers; the only non-centers are Tapa, Paldiski, Keila, Türi, and Elva.

Table 2  
Population Growth of 24 Cities and Major Towns in Estonia,  
1922 to 1979

City or Town <sup>a</sup>	1922 <sup>b</sup>	1934 <sup>c</sup>	Population (in thousands) 1959 <sup>c</sup>	1970 <sup>d</sup>	1979 <sup>e</sup>	P (1970) <sup>d</sup> / P (1959)	P (1979) <sup>f</sup> / P (1970)
TALLINN <sup>g</sup>	127.6	152.9	281.7	362.706	428.687	1.287	1.190
TARTU	50.3	58.9	74.3	90.459	104.381	1.218	1.155
NARVA	26.9 <sup>h</sup>	23.5 <sup>h</sup>	27.6 <sup>q</sup>	57.863	72.783	2.150	1.258
KOHTLA-JÄRVE	1.6 <sup>i</sup>	2.0 <sup>i</sup>	56.1	68.318	72.699	1.219	1.064
PÄRNU	18.5	20.3	36.1	46.316	(54.051) <sup>p</sup>	1.284	(1.107) <sup>p</sup>
Viljandi	9.4	11.8	17.9	20.814	22.368	1.162	1.075
Rakvere	7.7	10.0	14.3	17.891	19.011	1.251	1.062
Valga	9.5	10.8	13.4	16.795	18.474	1.258	1.101
Võru	5.1	5.3	10.7	15.398	16.767	1.439	1.097
SILLAMÄE	—	—	8.2	13.505	16.157	1.645	1.188
Kuressaare <sup>j</sup>	3.4	4.5	9.7	12.140	14.204	1.250	1.175
Haapsalu	4.3	4.6	8.6	11.483	(13.035) <sup>p</sup>	1.340	(1.172) <sup>p</sup>
Kivimõli	—	—	10.4	11.153	11.04 <sup>m</sup>	1.068	0.990
Tapa	2.4	3.8	8.0	10.037	(10.851) <sup>p</sup>	1.254	(1.071) <sup>p</sup>
Maardu	—	—	4.2	6.7 <sup>k</sup>	9.77 <sup>n</sup>	1.608	1.454
Paide	3.0	3.3	5.83	7.73 <sup>k</sup>	9.641	1.33 <sup>o</sup>	1.248
Paldiski	1.1	0.9	3.39	6.86 <sup>k</sup>	7.311	2.02 <sup>o</sup>	1.066
Keila	0.8	1.0	3.03	5.574 <sup>l</sup>	7.197	1.84 <sup>o</sup>	1.297
Türi	2.0	2.9	5.62	6.26 <sup>k</sup>	6.626	1.11 <sup>o</sup>	1.058
Elva	1.3	1.7	4.80	6.33 <sup>k</sup>	6.358	1.32 <sup>o</sup>	1.004
Rapla	—	1.0	3.07	4.38 <sup>k</sup>	5.599	1.43 <sup>o</sup>	1.278
Jõgeva	0.9	1.1	2.50	3.643 <sup>l</sup>	5.387	1.46 <sup>o</sup>	1.469
Põhva	—	0.4	1.47	3.07 <sup>k</sup>	4.817	2.09 <sup>o</sup>	1.570
Kärdla	1.6	1.5	1.69	2.969 <sup>l</sup>	3.426	1.10 <sup>o</sup>	1.174

## Sources:

- a: Names of republic-level cities are in capital letters. Those of rural district seats are in italics.
- b: Rounded off to the closest 100, from *Rahvastikuprobleeme*, 5.
- c: Rounded off from ENE, II, 71.
- d: *Rahva Hääli*, 18 May 1971, unless otherwise shown.
- e: *Päevaleht*.
- f: *Itogi ESSR 1979*.
- g: The 1922 and 1934 figures include Nõmme. The 1959-79 figures exclude Saue and Maardu.
- h: Includes Jaanilinn (Ivangorod), transferred to RSFSR in January 1945.
- i: Town of Jõhvi only.
- j: Soviet version: Kingissepa.
- k: From the 1979 population and the 1979/70 population ratio.
- l: From ENE, III, 30, 303 and 500.
- m: From the 1970 population and the 1979/70 ratio.
- n: Calculated from Maardu and Saue combined total (13,113) and Estonian (5,158) populations (from *Päevaleht*) plus percentages of Estonians from *Itogi ESSR 1979*: 21.7% in Maardu, and 90.8% in Saue.
- o: From 1959 and 1970 population figures.
- p: Division of 1979 and 1970 figures shown yields ratios different from those reported on the basis of *Itogi ESSR 1979*: Pärnu 1.167, Haapsalu 1.135, Tapa 1.081.
- q: *Rahva Hääli*, 18 May 1971, has 26,908.



Table 3  
Ethnicity and Sex Ratio of 24 Cities and  
Major Towns in Estonia, 1934-1979

	% Estonian		Population in 1979 (thousands) <sup>c</sup>			Males per 1000 females (1979) <sup>d</sup>
	1934 <sup>a</sup>	1979 <sup>b</sup>	Estonian	Russian	Other	
Tallinn	85.5 <sup>e</sup>	51.9	222.218 <sup>f</sup>	162.719 <sup>f</sup>	43.735 <sup>f</sup>	847 <sup>f</sup>
Tartu	88.0	74.4	77.597	21.530	5.254	835
Narva	64.8	4.9	3.538	61.938	7.307	848
Kohtla-Järve	91.8 <sup>g</sup>	26.4	19.197	43.911	9.591	889
Pärnu	90.8	(74.1) <sup>h</sup>	(36.748) <sup>h</sup>	(10.540) <sup>h</sup>	(6.763) <sup>h</sup>	833
Viljandi	93.3	87.0	19.469	2.013	0.886	831
Rakvere	91.2	76.5	14.550	3.326	1.135	790
Valga	82.4	54.5	10.052	6.164	2.258	831
Võru	91.1	82.2	13.783	2.388	0.596	873
Sillamäe	—	4.3	0.683	13.847	1.621	870
Kuressaare	88.0	90.0	12.783	1.076	0.345	923
Haapsalu	88.3	(69.5) <sup>h</sup>	(10.593) <sup>h</sup>	(3.050) <sup>h</sup>	(—) <sup>h</sup>	854
Kiviõli	—	44.5	4.9 <sup>i</sup>	(4.9) <sup>i</sup>	(1.2) <sup>i</sup>	848
Tapa	93.8	43.2	4.684	4.460	1.707	912
Maardu	—	21.7	2.1 <sup>i</sup>	(6.4) <sup>i</sup>	(1.3) <sup>i</sup>	884
Paide	93.5	86.7	8.363	0.806	0.472	902
Paldiski	93.9	3.2	0.233	5.326	1.752	966
Keila	96.9	77.5	5.573	1.191	0.433	885
Türi	97.9	90.4	5.989	0.397	0.240	835
Elva	95.7	91.1	5.794	0.389	0.175	825
Rapla	98.1 <sup>j</sup>	90.5	5.070	0.345	0.184	836
Jõgeva	95.2	84.5	4.554	0.544	0.289	888
Põlva	94.7 <sup>j</sup>	92.3	4.446	0.234	0.137	908
Kärdla	95.7	92.4	3.167	0.187	0.072	951

Sources:

a: *Rahvastikuprobleeme*, 24. The source also has the % Estonian in 1922, which tend to be slightly lower (cf. Table 1).

b: *Itogi ESSR 1979*. These figures agree with the absolute population figures in *Päevaleht* (which does not include Kiviõli and Maardu). The % Estonian figures directly given in *Päevaleht* seem to involve calculation errors in the case of Rakvere, Võru, Haapsalu, Tapa, and Keila; the same applies to their % Russian figures (not shown here) for Kohtla-Järve, Võru, and Haapsalu.

c: *Päevaleht*; for "Other," calculations based on *Päevaleht*.

d: *Itogi ESSR 1979*.

e: Nõmme 84.6%, Tallinn proper 85.8%.

f: Calculated from Tallinn districts data in Table 8.

g: Townlet of Jõhvi only.

h: Figures for Pärnu and Haapsalu in *Päevaleht* are internally inconsistent, and disagree with those in *Itogi ESSR 1979*. Several copying or calculation errors seem to be involved for both cities. The combined Estonian and Russian population of Haapsalu in 1979 actually

exceeds the city total in the same source.

i: Number of Estonians calculated from the % Estonian and total population in Table 2. The distribution of the remainder (6.1 in Kiviõli, 7.7 in Maardu) between Russian and Other is an estimate.

j: Riigi Statistika Keskbüroo, *Valdade rahvastik: II rahvaloenduse tulemusi*, I (Tallinn, 1934), 36-40.

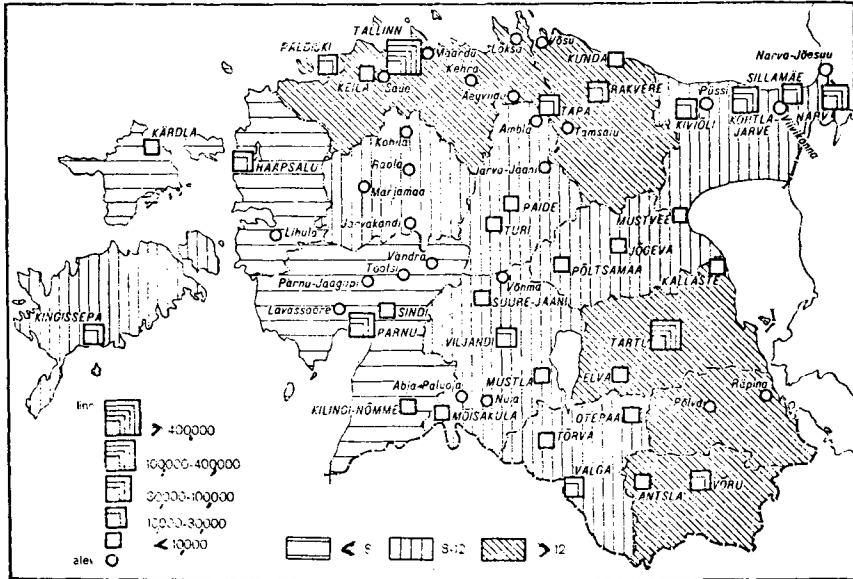


Figure 1. Location of Estonian Urban Centers and Population Densities of Rural Districts (per sq km) in 1977

Source: *Nõukogude Eesti* (1978), 40.

When comparing the 1979/1970 and the 1970/1959 growth ratios in Table 2, one should keep in mind that the time spans involved are different (nine and eleven years, respectively). It is nonetheless visible that the republic-wide slowdown in urban growth has affected nearly all cities and towns. Among the exceptions one finds the townlets of Rapla, Jõgeva, Põlva and Kärdla, which became district centers during 1947-1965, and are still growing in order to fulfill their new administrative roles; they remain overwhelmingly Estonian. Among the major cities Narva has been growing the fastest, ever since 1959, after an unusually long period of non-growth, from 1922 to 1959. Two-thirds Estonian in 1934, it is now practically a purely Russian city at the border of the RSFSR. Other rapid-growth towns of the 1970s were the heavily Russian Maardu (a phosphate mining and processing center) and the predominantly Estonian Keila, both essentially suburbs of Tallinn. Among the traditional minor regional centers, Paide has continued to grow.

An important new development of the 1970s has been the near-zero growth of Kohtla-Järve, the heavily Russian center of the oil shale mining area. Nearby Kiviõli has actually started to lose population. Despite the ecologically controversial increases in oil shale mining during the early 1970s, these single-industry cities may have reached their population ceilings, or some of their functions may have been transferred to Narva, less than 50 km away.<sup>13</sup>

Paldiski, a Soviet nuclear submarine base (which apparently was shaken by a nuclear accident in Fall 1976), grew by 1970 to seven times its prewar size, but has shown little growth since 1970. It remains unclear how the Soviet census lists military personnel. The extremely small number of Estonians in Paldiski (233 out of 7,000!) may indicate that the town consists practically only of the military garrison, or that non-Estonian auxiliary labor is preferred (including forced laborers used for radiation-exposed cleaning jobs).

Among other slow-growth towns of the 1970s Viljandi, Rakvere, and Võru are historical towns which may be relatively large for their present role as district centers. There seems to be a trend toward size equalization among district centers without republic-level status. Occasional attempts to divert more industry from Tallinn to these centers have not had major impact. The railroad nodes of Tapa and Türi (which no longer is one) and the vacation town of Elva also have grown very slowly in the 1970s.

In 1934, all cities and towns listed in Table 3 had Estonian majorities, ranging from 65% in Narva to 98% in Türi. In 1979 the Estonian share ranged much more widely, from a tiny minority of 3% in Paldiski to a continuing preponderance of 92% in Kärdla. The present share of Estonians shows no correlation with the present total population, nor with the average growth rate since 1934. Geography plays a distinct role: Estonians are a minority in all urban centers of the Kohtla-Järve district in the northeast of the country (Narva, Kohtla-Järve, Sillamäe, Kiviõli), and in some other centers near the northern coast: Maardu (phosphate mining), Paldiski (Soviet navy base), and Tapa (junction of rail lines from Tallinn, Leningrad, and Riga). Outside this coastal strip, which includes the Leningrad-Tallinn-Paldiski railroad, all cities and towns were at least 54% Estonia in 1979.

The Estonian percentage has decreased from 1934 to 1979 in all cities and towns, except Kuressaare (Kingissepa since 1952) which was 7% German in 1934. The absolute size of the Estonian population has grown in almost all cases, although the increase has been very small in Valga and Tapa. The absolute size of the Estonian population has decreased in Narva (from 15,000 in 1934 to 3,500 in 1979) and Paldiski (from 850 to 233). In the case of Narva, it is known that wartime rural refugees from this region were discouraged by the Soviet authorities from returning and were settled near Haapsalu,<sup>14</sup> as if to create on purpose empty *Lebensraum* for the Russian immigrants.

The ratio of Russians and other non-Estonians shows considerable variation. In most cases the Other/Russian ratio lies between .20 and .40. For Tallinn it is .27. An unusually low ratio of .12 occurs for Narva and Sillamäe. One might

expect that the early postwar immigration would come mainly from the nearby Leningrad oblast and be purely Russian. However, Narva has tripled and Sillamäe has doubled in size since 1959 during an intense "Other" immigration into Estonia. It is common wisdom (supported by language data from the 1970 census) that the "Other" immigrants largely join the Russian community rather than the Estonian. They have nonetheless tended to avoid Russian-dominated Narva, despite its easy accessibility. The better housing and consumer goods in the Estonian-run cities may be a factor.<sup>15</sup> Narva may also retain special attraction for the Russians of the Leningrad oblast, due to proximity and family connections.

The Other/Russians ratio is unusually high in Viljandi and Elva (.45), and especially in Jõgeva, Rapla, Paide, Põlva, and Türi (.53 to .60) where the Russian component is 10% of the total population or less, so that random fluctuations in statistics can be expected. The share of "Others" is below 14% of the total population in all cities and towns except Tapa (16%) and Paldiski (24%) where the Soviet navy base probably brings in people from beyond the usual immigration range.

Table 3 also lists the number of males per 1,000 females in 1979, chiefly in order to make available these data not published in Soviet printed sources. Not surprisingly, the ratio is highest for Paldiski, but even there females outnumber males, suggesting that the predominantly male crews of the ships stationed in Paldiski (including many draftees without families) are not fully included in the Paldiski population count. For the other cities no pattern of correlation can be seen between the male/female ratio and other known socio-demographic characteristics.

### *Smaller Urban Centers*

Table 4 shows size and growth data analogous to those in Table 2 for urban areas of less than 5,000 inhabitants which are not district centers, but which are still classified as a town (*linn*) or townlet (*alev*). There is no clearcut size threshold for such urban-type settlements. Maardu (in Table 2) is still an *alev* despite its population of 10,000, and so are the rural district centers Põlva and Rapla. On the other hand, Kallaste (1,400 inhabitants) and even Mustla (900) are each classified as a *linn* for historical reasons: they have shrunk in size since the time when they received town status. The threshold level for achieving classification as an urban-type settlement seems to be around 1,000, but some townlets achieved this status at a lower size and have subsequently shrunk to 600 or even less (Ambla). When one considers that several state and collective farms have 800 to 1,500 *working* members (not to mention the 6,000-member Kirov fishing kolkhoz), an overlap in size between townlets and farm centers becomes likely, although only a part of the farm population lives in the farm centers.

The official classification is followed in Table 4. Names of towns (in contrast to townlets) are in italics. Locations are listed in the order of decreasing

Table 4  
Population Growth of 35 Minor Towns and Townlets  
in Estonia, 1922-1979

Town or Townlet <sup>a</sup>	District <sup>b</sup>	1922 <sup>c</sup>	Population (thousands)					1979 <sup>f</sup>	P (1970) <sup>g</sup> / P (1959)	P (1979) <sup>h</sup> / P (1970)
			1934 <sup>d</sup>	1959 <sup>d</sup>	1970 <sup>e</sup>	1979 <sup>f</sup>	1970 <sup>e</sup>			
<i>Põltsamaa</i>	JÕG	2.1	2.6	3.667	4.524 <sup>i</sup>	4.99	1.234	1.104		
<i>Kunda</i>	RAK	2.3	1.9	3.776	5.226 <sup>i</sup>	4.85	1.384	0.929		
<i>Sindi<sup>b</sup></i>	—	1.6	1.9	3.083	3.92	4.38	1.27	1.118		
<i>Narva-Jõesuu<sup>b</sup></i>	—	2.3	1.6	2.751	3.49	4.17	1.27	1.196		
<i>Kehtna</i>	HAR	—	0.2 <sup>m</sup>	2.785	3.579 <sup>j</sup>	4.01	1.285	1.120		
<i>Loksa</i>	HAR	—	1.2	3.316	3.1	3.6	0.93	1.153		
<i>Tõrva</i>	VAL	1.8	2.6	2.579	2.92	3.35	1.13	1.147		
<i>Saue<sup>b</sup></i>	—	—	0.05 <sup>m</sup>	—	1.7 <sup>j</sup>	3.3 <sup>k</sup>	—	1.961		
<i>Märjamaa</i>	RAP	—	0.7	1.821	2.52	3.21	1.38	1.275		
<i>Räpina</i>	PÕL	—	0.6	2.237	2.63	3.11	1.18	1.183		
<i>Kohila</i>	RAP	—	1.0	2.355	2.520 <sup>i</sup>	3.10	1.070	1.229		
<i>Otepää</i>	VAL	1.8	2.0	2.158	2.45	2.60	1.14	1.063		
<i>Kilingi-Nõmme</i>	VAL	1.0	1.4	2.141	2.313 <sup>i</sup>	2.53	1.080	1.093		
<i>Vändra</i>	PÄR	—	0.9	1.724	2.11	2.40	1.22	1.138		
<i>Tamsalu</i>	RAK	—	0.5	1.564	2.03	2.39	1.30	1.177		
<i>Võhma</i>	VIL	—	0.7	1.125	1.59	2.22	1.41	1.399		
<i>Nuia</i>	VIL	—	0.8	1.047	1.52	2.13	1.45	1.402		
<i>Muspea</i>	JÕG	2.7	2.8	2.325	2.227 <sup>i</sup>	2.10	0.958	0.943		
<i>Vüvikonna<sup>b</sup></i>	—	—	—	1.785	2.52	2.02	1.41	0.801		
<i>Järvakandi</i>	RAP	—	—	1.996	2.127 <sup>i</sup>	1.99	1.066	0.934		
<i>Antsla</i>	VÕR	0.9	1.6	2.453	2.17	1.96	0.88	0.905		
<i>Abja-Paluoja</i>	VIL	—	1.0	1.689	1.76	1.80	1.04	1.021		
<i>Lihula</i>	HAA	—	0.7	1.510	1.61	1.69	1.07	1.050		

<i>Suure-Jaani</i>	VIL	1.0	1.0	1.713	1.64	1.66	0.96	1.011
<i>Mõisaküla</i>	VIL	1.9	2.2	2.163	1.90	1.62	0.88	0.854
Püssi <sup>b</sup>	—	—	—	0.832	0.86	1.93	1.03	2.246
Pärnu-Jaagupi	PÄR	—	—	1.234	1.27	1.50	1.03	1.184
Järva-Jaani	PAI	—	—	1.368	1.54	1.46	1.13	0.950
Tootsi	PÄR	—	—	1.057	1.39	1.43	1.32	1.027
<i>Kallaste</i>	TAR	1.6	1.6	1.668	1.604 <sup>i</sup>	1.39	0.962	0.868
Aegviidu	HAR	—	—	1.082	1.19	1.10	1.10	0.922
<i>Mustla</i>	VIL	0.7	0.9	1.011	1.04	0.90	1.03	0.867
Võsu	RAK	—	—	—	—	0.7	—	—
Lavassaare	PÄR	—	—	0.645	0.626 <sup>i</sup>	0.608 <sup>1</sup>	0.971	0.971
Ambla	PAI	—	—	0.761	0.712	0.571 <sup>1</sup>	0.936	0.802

## Sources:

- a: Names of places classified as towns are in italics.  
b: For full names of districts see Table 7. Sindi is subordinated to the republic-level city of Pärnu, Narva-Jõesuu to Narva, Saue to Tallinn, and Viivikonna and Püssi to Kohtla-Järve.  
c: Rounded off to the closest 100, from *Rahvastikuprobleeme*, 5.  
d: ENE, II, 71. The 1934 figures have been rounded off.  
e: Interpolated or extrapolated from the 1965 data in 25 aastat *Nõukogude Eestit*, 20-22, and the 1969-1976 data in various volumes of ENE, unless otherwise indicated.  
f: From the 1970 population and the 1979/1970 population ratio.  
g: From the 1959 and 1970 populations.  
h: *Itogi ESSR 1979*.  
i: Census figures from ENE, III and IV.  
j: From the 1979 population and the 1979/1970 ratio.  
k: Calculated from known combined data for Maardu and Saue—see Table 2, note. n.  
l: For such small populations, the precise figure can be reestablished from the 1979/1970 ratio and the % Estonian, since population figures must be integers.  
m: *Valdade rahvastik*, 1-13.

Table 5  
Ethnicity and Sex Ratio of 35 Minor Towns and  
Townlets in Estonia, 1934-1979

	% Estonian		Population in 1979 (thous.) <sup>c</sup>		Males per 1000 Females (1979) <sup>b</sup>
	1934 <sup>a</sup>	1979 <sup>b</sup>	Estonian	Russian & Other	
Põltsamaa	97.0	96.2	4.8	0.2	857
Kunda	92.7	61.0	2.9	1.9	851
Sindi	95.9	73.1	3.2	1.2	732
Narva-Jõesuu	72.8	16.5	0.7	3.5	836
Kehra	91.5	56.6	2.3	1.7	860
Loksa	93.6	37.0	1.3	2.3	938
Tõrva	97.7	98.2	3.3	0.1	871
Saue	95.9	90.8	3.0	0.3	902
Märjamaa	95.5	95.4	3.1	0.1	888
Räpina	97.3	84.3	2.6	0.5	780
Kohila	96.3	82.1	2.5	0.6	828
Otepää	98.6	97.6	2.5	0.1	833
Kilingi-Nõmme	98.3	97.1	2.5	0.0	831
Vändra	97.3	97.7	2.3	0.1	880
Tamsalu	93.8	76.9	1.8	0.6	955
Võhma	98.6	92.9	2.1	0.1	902
Nuia	99.2	92.6	2.0	0.1	947
Mustvee	35.4	44.1	0.9	1.2	867
Viivikonna	–	9.6	0.2	1.8	943
Järvakandi	–	74.5	1.5	0.5	791
Antsla	96.2	97.4	1.9	0.1	818
Abja-Paluoja	98.6	93.2	1.7	0.1	819
Lihula	92.5	94.5	1.6	0.1	825
Suure-Jaani	97.7	97.0	1.6	0.1	807
Mõisaküla	89.7	88.1	1.4	0.2	800
Piissi	87.7	50.2	1.0	0.9	890
Pärnu-Jaagupi	97.8	97.5	1.5	0.0	915
Järva-Jaani	95.4	96.0	1.4	0.1	1212
Tootsi	–	85.0	1.2	0.2	821
Kallaste	11.8	24.0	0.3	1.1	990
Aegviidu	90.0	80.8	0.9	0.2	845
Mustla	97.8	90.6	0.8	0.1	819
Võsu	93.0	92.9	0.7	0.0	690
Lavassaare	–	67.9	0.413	0.195	865
Ambla	97.9	93.7	0.535	0.036	736

a: *Rahvastikuprobleeme*, 24, and *Valdade rahvastik*, 36-40.

b: *Itogi ESSR 1979*.

c: Calculated from % Estonian and the total population in (Table 4).

population size in 1979. Rural districts to which they belong are shown in abbreviated form (see Table 6 for full district names). Sindi is subordinated to the republic-level city of Pärnu, Narva-Jõesuu to Narva, Saue to Tallinn, and Viivikonna and Püssi to Kohtla-Järve.

Table 5 shows ethnicity and sex distribution for the same small settlements in analogy with Table 3, except that the distribution between Russians and other non-Estonians is not known. In small towns, too, population growth has recently slowed down. Among the thirty-five centers shown, eight lost population in 1959-70, and twelve did so in 1970-79. Some of these are single-industry townlets where the traditional industry is stagnating: Kunda (cement), Viivikonna (oil shale), Järvakandi (glass). But improved transportation means between cities and kolkhoz centers may be undercutting the function of the townlets more generally. The only strong growth cases (over 40% in 1970-79) are Saue (a satellite of Tallinn), Püssi (which bucks the general trend in the oil shale area), and two townlets in the Viljandi district (Võhma and Nuia).

The ethnicity pattern is the same as for the larger towns. Estonians form less than 20% of the population in the eastern Kohtla-Järve district (Narva-Jõesuu, Viivikonna), and are often below 65% elsewhere near the northern coast (Püssi, Kunda, Loksa, Kehra). Surprisingly, the rapidly growing Püssi oil shale townlet is slightly more than 50% Estonian, in contrast to older oil shale settlements of Kohtla-Järve, Kiviõli, and Viivikonna, which are all preponderantly non-Estonian. Could it be that the current immigration into the oil shale area has lost its earlier heavily Russian character?

Another group of predominantly Russian small towns consists of Mustvee and Kallaste on Lake Peipsi in a zone of centuries-long Russian settlement. Both towns have been losing population, and they have become more Estonian in the course of this process, compared to 1934, and apparently also compared to 1970. In a unique mention of ethnic composition of small towns, the *Estonian Soviet Encyclopedia* states that Kallaste was over 80% Russian in 1970,<sup>16</sup> in contrast to 76% or less in 1979.

Outside the northern and the Peipsi coastal zones, all small towns were at least 68% Estonian in 1979. In Tõrva and Antsla the Estonian percentage has increased since 1934, but it is a question of only a few tens of people. The male-female ratio again shows no definite pattern.

### *Rural Districts*

Size and growth data in Table 6, as well as ethnicity and sex data in Table 7, refer only to the rural part of the district population after subtracting the population of towns and townlets.<sup>17</sup> The present boundaries of districts (*rajoon*) were essentially settled only by 1965, after two decades of fragmentation followed by reconsolidation of administrative units. Therefore, no pre-1965 data within the present district boundaries are available, and little comparison is possible with the prewar counties (*maakond*). The rural part of the data is much less precise than the urban part, because for most districts direct 1970



census data for population could not be found and had to be interpolated from the 1965 and 1975 figures in Soviet sources, which are themselves already estimates made five or six years after the last preceding census. The interpolated values were subsequently further adjusted to agree with the known republic-wide rural population size as shown in Table 1.

All districts seem to have lost rural population rather steadily, except Harju around Tallinn, and possibly Haapsalu. The population growth in Harju probably took place in the outskirts of Tallinn only. Depopulation of the countryside has lately proceeded at the fastest rate (more than 10% during 1970-79) in the

Table 6  
Population Changes in the Rural Districts  
of Estonia, 1965-1979

District	Population (thousands)				P (1979) <sup>e</sup> / P (1970)
	1965 <sup>a</sup>	1970 <sup>b</sup>	1975 <sup>c</sup>	1979 <sup>d</sup>	
Haapsalu	17.9	18.3	18.6	17.1	.933
Harju	61.2	62.6	63.5	65.8	1.051
Hiiumaa	7.4	7.0	6.8	6.6	.943
Jõgeva	32.2	31.6	30.7	29.5	.934
Kingissepa	28.5	26.8	25.3	24.3	.908
Kohtla-Järve	29.0	27.9	27.1	25.9	.928
Paide	26.4	25.5	24.5	23.7	.931
Põlva	31.0	30.4	29.7	27.1	.893
Pärnu	37.6	36.1	34.4	33.2	.921
Rakvere	43.7	42.9	41.7	40.5	.944
Rapla	28.2	27.0	25.8	24.0	.889
Tartu	45.4	45.0	44.2	42.1	.935
Valga	23.8	22.9	21.8	20.3	.886
Viljandi	39.4	38.1	36.6	34.6	.908
Võru	35.1	32.8	30.4	28.8	.878

a: 25 aastat Nõukogude Eestit, 20-22 and 135-57. Their data on districts include towns and townlets, which have been subtracted here. Their total for rural population (484,500) differs from that given in later Soviet sources (486,800); I have prorated the districts figures to fit this later total.

b: ENE has direct census data only in its vol. III and IV: Hiiu, Jõgeva, Kingissepa, and Kohtla-Järve. In the other cases the 1965 and 1975 figures have been averaged, and then prorated to fit the known rural total from the 1970 census (474,900). Prior to prorating the sum for rural districts came out as 472,700.

c: Nõukogude Eesti (1975), 5 has district totals (including towns and townlets), and 292-317 has the rural percentage in each district. Resulting rural total is 460,700, but the revised total in recent Soviet sources (published after the 1979 census) is 461,100. The district figures shown have been prorated to fit this new total.

d: From 1970 population and the 1970/79 ratio. Since most of the 1970 figures are based on the inter-census estimates of 1965 and 1975, appreciable error can be expected. However, the total adds up to the known census total of 443,500.

e: Itogi ESSR 1979.

southeastern districts of Võru, Valga, and Põlva, but also Rapla (close to Tallinn, but not contiguous), where the republic capital may exert an especially strong pull.

Table 7  
Ethnicity and Sex Ratio in Rural Districts  
of Estonia, 1934-1979

District	%Estonian		Population in 1979 (thous.) <sup>c</sup>		Males per 1000 Females (1979) <sup>b</sup>
	1934 <sup>a</sup>	1979 <sup>b</sup>	Estonian	Russian & Other	
Haapsalu	(91.7) <sup>d</sup>	86.4	14.8	2.3	926
Harju	97.4	78.2	51.5	14.3	877
Hiiumaa	— <sup>d</sup>	95.6	6.3	0.3	899
Jõgeva	91.0	89.0	26.3	3.2	893
Kingissepa	99.1	93.8	22.8	1.5	867
Kohtla-Järve	— <sup>e</sup>	68.1	17.7	8.2	888
Paide	98.7	92.6	22.0	1.7	854
Põlva	96.9	93.5	25.4	1.7	855
Pärnu	98.7	94.6	31.4	1.8	927
Rakvere	— <sup>e</sup>	88.3	35.8	4.7	878
Rapla	97.4	92.0	22.1	1.9	935
Tartu	91.0	84.1	35.4	6.7	851
Valga	96.3	92.1	18.7	1.6	877
Viljandi	98.5	90.4	31.3	3.3	859
Võru	96.9	93.5	26.9	1.9	848

a: The county (*maakond*) borders in 1934 differed in a major way from those of the 1979 districts (*rajoon*), except for Saaremaa = Kingissepa. For purposes of very rough comparison the 1934 county data from *Rahvastikuprobleeme*, 20, is shown here, making the following inaccurate assumptions: Läänemaa = Haapsalu and Hiiu; Harjumaa = Harju and Rapla; Tartumaa = Jõgeva and Tartu; Virumaa = Rakvere and Kohtla-Järve; Järvamaa = Paide, Võrumaa = Põlva and Võru, Pärnumaa = Pärnu; Valgamaa = Valga; Viljandimaa = Viljandi. To compound the problem, the rural areas of 1934 include the population of several present townlets.

b: *Itogi ESSR 1979*.

c: Calculated from % Estonian and the total population (Table 6). The total for rural Estonians adds up to 388,400, as compared to the known total of 388,600.

d: Hiiumaa was 99.5% Estonian. The present Haapsalu district included about 5,000 Swedes who left in 1943.

e: Of the 14,500 non-Estonians (mostly Russians) in rural Virumaa (86.6% Estonian) about 6,700 were in the trans-Narva area transferred to the RSFSR in 1945. The present Rakvere district was about 98.5% Estonian, and the present Kohtla-Järve district about 81% Estonian. Calculations based on *Valdade rahvastik*, 1-13, 36-40.

Apart from Harju and Kohtla-Järve districts (with overflows from Tallinn and Kohtla-Järve cities, respectively), the rural population in 1979 was solidly Estonian (more than 84%) in all districts. The male-female ratio was remarkably uniform throughout the districts, and the median (.877) was higher than was the case for the major cities (.872) or minor towns (.845). It would be hard to draw any conclusions without knowing the age-specific sex ratio. (It goes without saying that one would very much wish to see a complete breakdown of absolute population figures by age, sex, and ethnicity. We are very far from that.)

*Regional Considerations: Kohtla-Järve and Tallinn*

As repeatedly pointed out in earlier sections, Russians predominate in the Kohtla-Järve region (including the rural district and the city, and also Narva, Sillamäe, Kiviõli, Narva-Jõesuu, Viivikonna, and Püssi). Out of the total population of 297,000 in 1979, only 48,000 (23%) were Estonian. Actually one should distinguish between the narrow northern coastal zone of about 15 km, where the urban centers and oil shale mines are located, and the sparsely settled southern three quarters of the district, which is likely to be about 85% Estonian. The northern strip seems to be about 19% Estonian. Close to one third of the republic's non-Estonian population (approximately 160,000 out of 517,000) is concentrated in this strip, which forms about 2% of Estonia's land area. Over 40% of the republic's non-Estonians are located in Tallinn and its Maardu satellite (214,000 out of 517,000). Outside Tallinn and the northeastern Kohtla-Järve strip, there are about 145,000 non-Estonians, or 17% of the total population (about 835,000) of this remaining area.

The four city districts of Tallinn themselves differ appreciably from each other (see Table 8). The fourth district was carved out of the prior three only in 1974, and population reconstructions for comparison purposes go back only to 1970. The two seashore districts (Kalinini in the west and Mere in the east) are predominantly Russian and have relatively many males. (It would be so-called "ecological fallacy" to conclude that the "extra" Russians are males.) The two inland districts (Oktoobri in the west and Lenini in center-east) are predominantly Estonian. The two western districts (the Russian Kalinini and the Estonian Oktoobri) have shown high population growth (35 to 39% since 1970), while the eastern districts have had practically zero growth (4% for Mere, and -2% for Lenini). The core of the Oktoobri district consists of Mustamäe, a suburb with large apartment buildings constructed in the 1960s and 1970s, which in its early phase was reputed among Estonians to be a Russian town (derogatorily nicknamed "Tiblagorsk"); it is therefore worth special note that this district is now more than half Estonian. The current major new housing development of Õismäe is part of the predominantly Russian Kalinini district, but Õismäe's own ethnic pattern is not known.

Construction of new major port facilities near Tallinn started with an official ceremony on 4 March 1982 at the Muuga (Randvere) Bay, 12 km east of downtown Tallinn (and outside the present city limits). The new harbor is to become

Table 8  
Growth, Ethnicity, and Sex Ratio in Tallinn  
City Districts, 1970-1979

District Name (and previous name)	Approx. Location	Total Population		Males per 1000 Females	
		1970 <sup>a</sup>	1979 <sup>b</sup>	P (1979) <sup>c</sup> / P (1970)	(1979) <sup>c</sup>
Kalinini (Kopli)	NW	92,654	123,607	1.346	894
Mere	NE	67,766	69,798	1.037	868
Oktoobri (Mustamäe)	SW	91,939	129,706	1.391	838
Lenini (Kesk)	SE	110,347	105,576	0.983	793

	Estonians		Russians		Other	
	Number	%	Number	%	Number	%
Kalinini	50,193	40.6	57,314	46.4	16,100	13.0
Mere	32,462	46.5	29,889	42.8	7,447	10.7
Oktoobri	73,808	56.9	43,981	33.9	11,917	9.2
Lenini	65,755	62.3	31,530	29.9	8,291	7.9

## Sources:

a: ENE, VII, 447.

b: *Päevaleht*, and calculations based on it.c: *Itogi ESSR 1979*.

the largest and the deepest on the Soviet Baltic coast, comparable to Vostochnyi on the Pacific and Yuzhnyi on the Black Sea. The first stage, scheduled for completion in 1986, would triple the capacity of the Tallinn commercial port and double its labor force. Most of the construction labor will come from outside Estonia and will be "international." According to ECP First Secretary Karl Vaino, "The establishment of the new harbor will doubtlessly exert a positive influence on the development of Tallinn and our main railroads, and also on economic progress throughout our republic."<sup>18</sup> A public discussion of the project's ecological, demographic, and cultural impact has been glaringly absent from the Soviet Estonian press. In fact, there was practically no mention of the project before the Estonian general public was presented with the *fait accompli* of the starting ceremony. In the long run the harbor expansion is highly likely to turn Estonia's capital into a predominantly Russian city, although the main impact is likely to come only after 1990.

*Accuracy and Trustworthiness of Data*

Perhaps this topic should have been discussed first, but because of its technical nature it has been placed at the end. Published Soviet data tend to be very precise and are probably accurate for the non-military population. The census

accounting for military personnel remains unclear, and purposeful rigging is not impossible in the case of a garrison town like Paldiski. Any census figures throughout the world are subject to errors and later corrections, and this applies even more to intercensal estimates.

For the unpublished 1979 census data leaked through unknown intermediaries we must consider unintentional transmission errors as well as the possibility of intentional alterations or even all-out fabrication. The likelihood of the leaked figures being pure invention is extremely small because the overall picture is rather self-consistent and checks with the bits and pieces published officially. Major discrepancies can be observed regarding Pärnu and Haapsalu (as pointed out in Table 2, note p and Table 3, note h). Rather than casting doubt on the rest of the data, the detection of these discrepancies shows that pure invention of such sets of figures would be very difficult: internal inconsistencies may arise in unexpected ways. The errors for Pärnu and Haapsalu are most likely due to copying or calculation errors.

As a further check on self-consistency, Table 9 shows the combined sums for the urban populations listed in Tables 2 to 5; this sum is compared to the totals in Table 1 (which are known from official Soviet publications). For 1959 the official Soviet figures for all urban centers are available. Due to later corrections of the total urban figure, a discrepancy of 1,500 is observed. This 0.4% error can be taken as a base line for the degree of accuracy that can possibly be expected in that type of census work. Our partly interpolated data for 1970 and the almost fully indirect data for 1979 add up to the known totals within the same degree of error. The same is true for the ethnically Estonian population separately. This result seems to suggest, in particular, that the visibly inconsistent figures for Pärnu and Haapsalu are not likely to be off by more than a few thousand. (Of course, in the case of Haapsalu even one thousand would alter the local picture appreciably.)

Table 9  
Internal Consistency of the Data

	Population (thous.)			P (1979)/ P (1970)	Est. pop. 1979	
	1959	1970	1979		Thous.	%
Cities in Table 2 without Tallinn	331.9	445.7	511.9	—	273.9	—
Towns in Table 4	63.4	74.3	82.8	—	62.4	—
Sum	395.3	520.0	594.7	1.144 <sup>a</sup>	336.3	56.5 <sup>a</sup>
Total Urban in Table 1	393.8	518.5	593.6	1.145	337.8	56.9
Discrepancy	1.5	1.5	1.1	.001	-1.5	-0.4

Sources: Tables 1, 2, and 4.

a: Calculated from absolute figures in the same row.

A similar check could be carried out, in principle, using the total populations and the male-female ratios. However, since that ratio varies relatively little (compared to the % Estonian), the summed results seem to be bound to agree with the overall figures even if detailed population figures were quite incorrect.

No summation check can be carried out on the rural population (Table 6), since in the absence of firm population figures for 1970 these very figures were adjusted by me so as to agree with the known total. The resulting total rural population figure for 1979 (443,500) does agree with the officially published one, and the resulting rural total for ethnic Estonians in Table 7 (388,500) is very close to the total of 388,600 in Table 1, as calculated from republic-wide leaked data. However, in view of the rather small variations in growth rates and % Estonian among the rural districts, good agreement would be expected even if population data by district were erroneous.

It has to be concluded that to the extent that cross-checking is possible the data sets used are mutually consistent. A few copying or calculation errors can be detected.

### *Conclusions*

Detailed analysis of growth rate and size patterns must be left for a subsequent article. Let us note in passing that the size-rank relationship of Estonian towns deviates from the so-called Zipf law in an unusual direction: the log-log plot yields a nice straight line, but its slope is much steeper than 1.0 (about 1.4).

An overview of the ethnic composition by districts (including urban centers located within these districts) is shown in Figure 2. Only Harju (including Tallinn) and Kohtla-Järve (including Narva) are less than 76% Estonian. While the combined area of these districts looks small on the map, it should be kept in mind that these two districts comprise slightly more than one half of the republic's population. On the other hand the map also makes one visualize the fact that throughout most of the republic's territory Estonians continue to form an overwhelming local majority. The highest concentration of Estonians tends to occur far from major railroads—in the islands, in the center, and in the southeast. The absence of Russians from the southeast, which borders on the Russian SFSR, is somewhat unexpected, even though the Leningrad-Tallinn railroad would be expected to play a much larger role in Russian immigration than the Pskov area. The map suggests that the rather underpopulated Pskov oblast has been completely inactive as a gateway to Estonia. Further north, the Peipsi coast is slowly becoming more Estonian, as the effect of an earlier wave of Russian immigration is undone.

Population growth in the oil shale region has almost stopped, but massive Russian immigration into Tallinn and Narva continues. In rural areas the number of non-Estonians has not increased lately, but their percentage has, due to the continuing decrease in the Estonian component through migration to the cities and also the high death rate of an aging population.



Figure 2. Percentage of Estonians in the Total Population of Districts in 1979 (Including Urban Areas)

Sources: Tables 2 to 7.

## NOTES

- 1 ESSR Central Statistics Office, *25 aastat Nõukogude Eestit: statistiline kogumik* (Tallinn: Eesti Raamat, 1965), 20-22 and 135-57.
- 2 *Eesti nõukogude entsüklopeedia*, 8 vols. (Tallinn: Valgus, 1968-1976), II, hereafter abbreviated as ENE. For 1959, also *25 aastat Nõukogude Eestit*.
- 3 *Nõukogude Eesti: entsüklopeediline teatmeteos* (Tallinn: Valgus, 1975), 5 and 292-317, and its second edition (1978), 5 and 353-82. Given the total population of a district and its rural percentage, the rural population can be calculated. No population figures for towns and townlets within districts are given, although their area in square kilometers is meticulously recorded.
- 4 E.g., for the 12 largest cities, *Nõukogude Eesti* (1978), 44 tabulates populations in 1881, 1897, 1922, 1934, 1941, 1959, 1970 and 1976, and articles on specific cities in ENE have even more detailed listings.
- 5 For 1959: ENE, II, 72. For 1970: *Itogi vsesoiuznoi perepisi naseleniia 1970 godu*, (Moscow, 1973), IV, 317-20; also (without Tallinn) *Rahva Hää!*, 18 May 1971.
- 6 Central Statistics Office of the USSR, *Naselenie SSSR* (Moscow: Politizdat, 1980); Estonian translation: *NSV Liidu rahvastik* (Tallinn: Eesti Raamat, 1981). The content of these 28-page brochures (published in Estonian in only 20,000 copies, twenty-four months after the census) is no more extensive than that published fifteen months after the previous census in every major Soviet newspaper (e.g., *Rahva Hää!*, 17 April 1971). For Tallinn 1979, the number of Estonians (227,376), Russians (168,573, Ukrainians (18,116) and the total population (442,960, including Maardu and Saue townlets) was published in a local newspaper of which the Soviet censorship quietly confiscates any issues mailed abroad: *Õhtuleht*, 27 February 1980.

- 7 *Vaba Eestlane* (Toronto), 3 November 1981, based on *Eesti Päevaleht* (Stockholm), 17 October 1981, and in slightly shortened form also in *Vaba Eesti Sõna* (New York), 12 November 1981. These data are hereafter referred to as *Päevaleht*.
- 8 ESSR Central Statistics Office, *Itogi perepisi naseleniia po Estonskoi SSR 1979 g.*; no date or page numbers known—hereafter referred to as *Itogi ESSR 1979*.
- 9 Data by urban places and rural counties in 1934 (along with extensive 1922 comparison figures) are tabulated in Riigi Statistika Keskburoo, *Rahvastikuprobleeme Eestis: II rahvaloenduse tulemusi*, IV (Tallinn, 1937). I am grateful to Mr. Alfred Treiman for having lent me his copy. Vol. I which includes ethnic figures on the township level could be used for more precise comparison with the present districts which differ from the pre-war counties.
- 10 The ESSR territory corresponds to the 1881 “census territory” plus Valga city and surroundings, other minor adjustments (positive and negative) on the Latvian border, the bulk of Merimäe, Järvesuu (present Värskä), and Mäe (present Mikitamäe) townships and one third of Saatsse township near Petseri, and the West-bank Narva city. The Republic of Estonia territory corresponds to that of the present ESSR plus the town of Petseri, eight townships (including most of Saatsse) east of it, East-bank Narva (Jaanilinn or Ivangorod), and three trans-Narva rural townships.
- 11 For year-to-year population and urbanization figures, see R. Taagepera, “Baltic Population Changes, 1950-1980,” *Journal of Baltic Studies* 12 (1981), 35-57.
- 12 Ukrainians increased in Tallinn from 7,300 in 1959 to 13,300 in 1970 and about 17,500 in 1979. In the remainder of the ESSR, it was 8,500 to 14,800 and 18,000. For all other nationalities (including Belorussians), the changes were in Tallinn from 14,100 to 20,400 and 25,700, and elsewhere from 34,000 to 47,400 and 46,000. Calculations based on ENE, II, 72; *Itogi 1970*, IV 317-20; *Naselenie 1979*; *Õhtuleht*, 27 February 1980; and *Päevaleht*.
- 13 Lately, oil shale production, too, has levelled off for the first time since World War II. From 1978 to 1981 the successive yearly production figures have been 30.4, 31.0, 31.3, and 30.7 million tons. Electricity production (which is largely based on oil shale) also has levelled off in 1978-81: 19.0, 19.4, 18.8, and 17.7 billion kilowatt hours. (*Rahva Hääli*, 27 January 1980, and 26 January 1982.)
- 14 “A large part of the peasants evacuated during the war from around Narva found new homes in the vacated farms of Estonian Swedes (who had resettled in Sweden), in the Läänemaa townships of Noarootsi and Riguldi, and Vormsi island.” *Eesti NSV ajalugu*, III (Tallinn: Eesti Raamat, 1971), 604.
- 15 In the preponderantly Russian Kohtla-Järve water shortage is endemic according to a reader’s letter in *Rahva Hääli*, 24 February 1982: “We lack water with regularity. In the summer, city people would be told by the managers of the Kohtla-Järve water and sewers administration that they [the managers] are utterly blameless: it’s the city population watering their flowers and gardens. But in winter they stop saying anything at all.”
- 16 ENE, III, 374 (1971).
- 17 The copy of *Itogi ESSR 1979* data explicitly states so regarding the male-female ratios; in the absence of a contrary statement I assume the same criteria apply to the 1979/1970 population ratio and to the % Estonian in 1979.
- 18 *Rahva Hääli*, 5 March 1982, which is also the source for the preceding information on port expansion. An article on an accident in the present Tallinn harbor (*Rahva Hääli*, 21 January 1982) mentions two Estonian names out of a total of seven cited. This may well express the ethnic composition of the present harbor work force.