MIGRATION AND SETTLEMENT:
10. AUSTRIA

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FOREWORD

Interest in human settlement systems and policies has been a central part of urban-related work at the International Institute for Applied Systems Analysis (IIASA) from the outset. From 1975 through 1978 this interest was manifested in the work of the Migration and Settlement Task, which was formally concluded in November 1978. Since then, attention has turned to the dissemination of the Task's results and to the conclusion of its comparative study, which, under the leadership of Dr. Frans Willekens, is focusing on a comparative quantitative assessment of recent migration patterns and spatial population dynamics in all of IIASA's 17 National Member Organization countries.

The comparative analysis of national patterns of interregional migration and spatial population growth is being carried out by an international network of scholars who are using methodology and computer programs developed at IIASA.

In this report, Dr. Michael Sauberer, Director of the Austrian Institute for Regional Planning, shows how multiregional population analysis may be used to describe and analyze the changes taking place in the size and distribution of populations over time. Adopting a two-level multiregional system (nine provinces and four regions) for his study of Austria, he demonstrates that it is important to consider the interdependence between the provinces when studying populations at the subnational level.

Reports summarizing previous work on migration and settlement at IIASA are listed at the end of this report.

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CONTENTS

1 INTRODUCTION

Austria is situated in southern central Europe, covering a part of the eastern Alps and the Danube region; the geographical character varies widely from the Alpine regions in the west and south to the lower hills and plains in the north and east. Situated at the heart of the continent, Austria is ideally placed as a communications link between the trade and cultural centers of eastern and western Europe (see Figure 1). Austria is a federal state consisting of nine provinces (Burgenland, Carinthia, Lower Austria, Upper Austria, Salzburg, Styria, Tyrol, Vorarlberg, and Vienna) with a total area of 83,843 km^2 and a total population (in 1975) of 7,519,900.

The nine provinces (Figure 2) are quite different in area, population, and character: in 1971, the urban province of Vienna (also the national capital) had a population density greater than 3900 persons/km^2, while the agricultural province of Burgenland was much less densely populated with only 69 persons/km^2. More than 20% of the Austrian population currently lives in Vienna, a city which occupies less than ½% of the total area of the country; in recent years the population has been maintained at this level only by migration from other provinces since the large excess of deaths over births has led to a large natural loss (negative natural increase).

These statistics illustrate the need for the study of population distribution and growth in Austria: to determine whether Vienna's share of the total population is likely to rise or fall in the future, whether there will be a shift away from or toward rural areas, and whether the total population of the country will increase or decrease in the years to come. Information of this type is very valuable to planners in both provincial and central governments because it provides a rough guide as to whether, where, and when new schools should be built, new housing developments started, or new industrial plants sited – or even whether a population distribution policy is necessary and, if so, how it should be implemented.

FIGURE 1 Geographical position of Austria within Europe.

This study is a report of a multiregional demographic analysis of Austria, and is based on theory developed by Rogers and his coworkers at the International Institute for Applied Systems Analysis, which is situated just outside Vienna. The main difference between this and earlier approaches to mathematical demography lies in the number of regions considered – mathematical demographers have traditionally dealt with single-region populations that are assumed to be closed to migration, but Rogers has extended this treatment to include several regions and the population flows between them. [Details of the methodology may be found in Rogers (1975) and in the articles on Theory and Methods contained in the list of related publications at the end of this volume.]

This report is part of a study in which patterns of interregional migration and population redistribution in a number of different countries are analyzed using the same mathematical techniques; this makes it possible to compare and contrast the results obtained for the various countries, and should lead to a

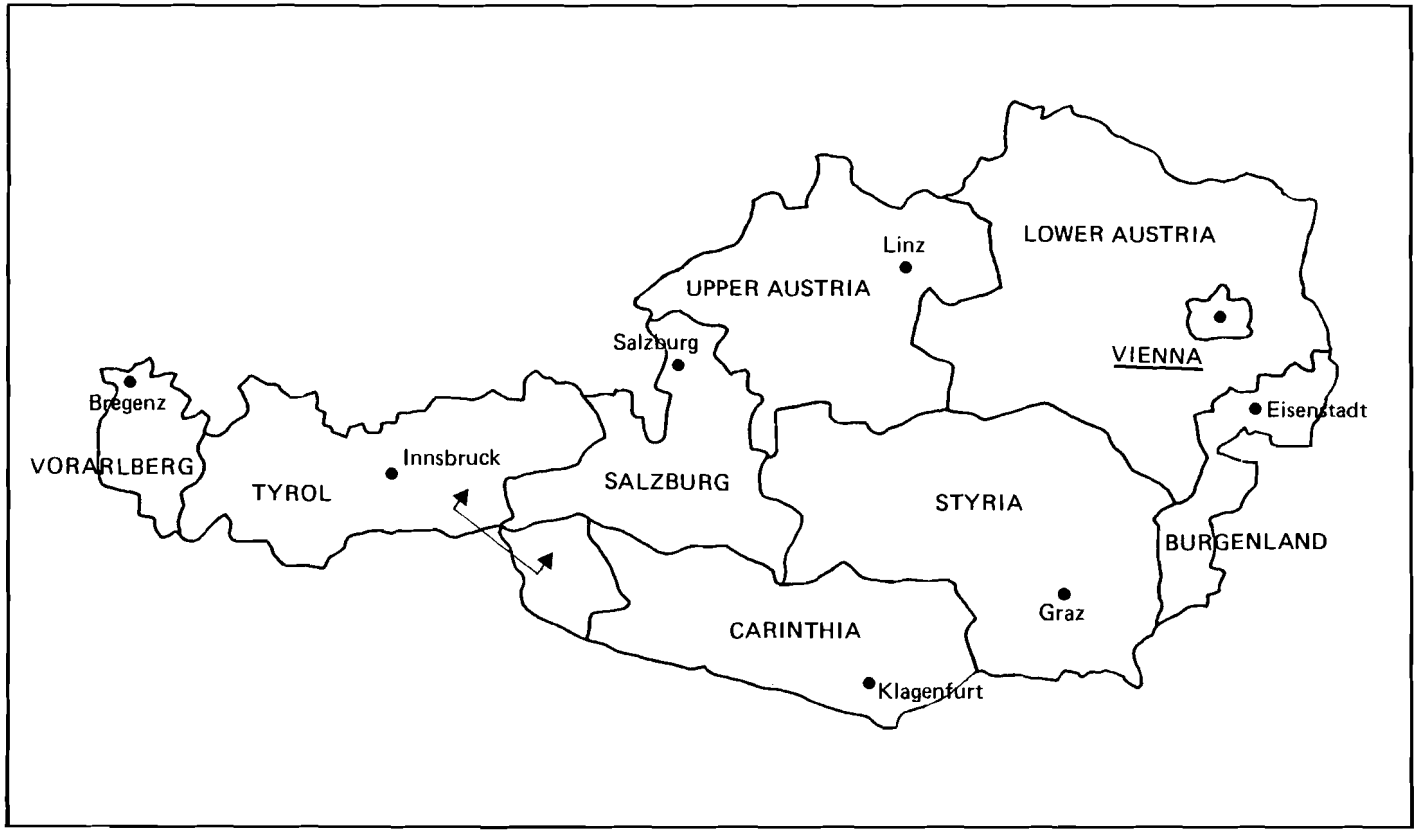

FIGURE 2 The nine provinces of Austria and the provincial capitals. Note that Vienna is not only the capital of the province of Vienna, but also the provincial capital of Lower Austria.

better understanding of the mechanisms controlling the underlying processes of migration and settlement.

The analysis has been carried out at two levels: for the nine provinces, and for a more highly aggregated system comprising four regions (East, South, Central, and West). The former was chosen because the type of data required (number of births, number of deaths, etc.) are supplied at this level, i.e., for each province separately; the latter was chosen as being the aggregation that corresponded most closely to the size of region used in the other national case studies and that would therefore be best for comparative purposes. Unfortunately these are not the best regions to work with as far as planning is concerned; it would be more useful to deal with areas controlled by a particular regional planning body, or with areas that are homogenous in some way and face similar problems (such as rural, suburban, or urban areas). Nevertheless, this study is valuable in that it illustrates the type of results which may be obtained from the use of multiregional demographic analysis.

The current population structure and demographic rates are to a large extent a result of past population structures and demographic rates. This section concludes with a brief summary of the demographic history of Austria up to the end of the second world war and leads into an analysis of current patterns of population distribution and growth. Section 3 considers the use of the multiregional life table as a method of multiregional population analysis, and examines various demographic measures which can be derived using this technique. Population projections based on current regional fertility, mortality, and interregional migration rates are also examined in Section 3, as is the stable equivalent to the original population; the measures being taken to control or influence population distribution and growth are discussed in Section 4. Finally, Section 5 contains the major conclusions drawn from this study.

1.1 Population Dynamics in Austria before 1951

Changes in the demographic structure of a country are very closely related to the socioeconomic and political developments taking place within the country as a whole. Austria has experienced a particularly varied history: it started as a Roman province, became a border area in the southeast of the Holy Roman Empire, and gradually rose to the status of a major power (the Austro-Hungarian Empire), which collapsed after the first world war; a republic was established between the wars, and Austria was then annexed by Germany just before the second world war. The republic was finally restored in 1945, and is still in existence today. It is sometimes difficult to realize that present-day Austria, which has a population of approximately 7.5 million people, was until 1918 an integral part of the Austro-Hungarian Empire, a huge area with a total population of 55 millions and territory including parts of what are now Czechoslovakia, Poland, Romania, Yugoslavia, Italy, and the USSR. The core of this empire was Vienna, which then lay at the geographical center of the vast territory which it controlled.

Vienna now lies very close to the eastern borders of present-day Austria, and governs a country one-third the size of the Federal Republic of Germany and containing only one-eighth the number of inhabitants.

Although the first census in the modern sense of the word did not take place until 1869, there are various estimates of the size of the population living in the area now known as Austria from the fourteenth century onward (see Table 1). According to Klein (1973), the total population of the land area corresponding to the present republic was about 1.5 million in 1527; an overview of the main changes in the population between 1527 and 1869 is given by Findl and Helczmanovszki (1977).

Table 2 shows that the population of Austria grew by nearly 2.2 million between 1869 and 1910 (the last census before the first world war), an increase

TABLE 1 Development of the population of what is now Austria from 1527 to 1975.[a]

Year	Population	Change from preceding value		Index		Average annual growth rate (per thousand)
		Number of people	%	1527 = 100	1869 = 100	
1527	1,500,000	–	–	100	–	–
1618	1,900,000	400,000	26.7	127	–	2.6
1700	2,100,000	200,000	10.5	140	–	1.2
1754	2,728,000	628,000	29.9	182	–	4.9
1780	2,970,000	242,000	8.9	198	–	3.3
1790	3,046,000	76,000	2.6	203	–	2.5
1800	3,064,000	18,000	0.6	204	–	0.6
1816	3,060,000	−4,000	−0.1	204	–	−0.1
1830	3,476,500	416,500	13.6	232	–	9.2
1840	3,649,700	173,200	5.0	243	–	4.9
1850	3,879,700	230,000	6.3	259	–	6.1
1857	4,075,500	195,800	5.0	272	–	7.1
1869	4,498,985	423,485	10.4	300	100	8.3
1880	4,963,142	464,157	10.3	331	110	9.0
1890	5,417,352	454,210	9.2	361	120	8.8
1900	6,003,778	586,426	10.8	400	133	10.3
1910	6,648,310	644,532	10.7	443	148	10.2
1923	6,534,742	−113,568	−1.7	436	145	−1.4
1934	6,760,233	225,491	3.5	451	150	3.1
1951	6,933,905	173,672	2.6	462	154	1.5
1961	7,073,807	139,902	2.0	472	157	2.0
1971	7,456,403	382,596	5.4	497	166	5.2
1975	7,519,900	63,497	0.9	501	167	2.1

[a] Taken from Findl and Helczmanovszki (1977) and Klein (1973).

TABLE 2 Components of population growth in what is now Austria from 1869 to 1971.[a]

Intercensal period	Change (in thousands)			Percentage change		
	Total increase	Natural increase	Net migration	Total increase	Natural increase	Net migration
1869–1880	464.1	223.5	240.6	10.3	5.0	5.3
1880–1890	454.3	257.1	197.2	9.2	5.2	4.0
1890–1900	586.3	413.1	173.2	10.8	7.6	3.2
1900–1910	644.6	502.6	142.0	10.7	8.4	2.3
1910–1923	−113.6	−128.6	15.0	−1.7	−1.9	0.2
1923–1934	225.5	258.9	−33.4	3.5	4.0	−0.5
1934–1951	173.7	20.6	153.1	2.6	0.3	2.3
1951–1961	139.9	268.9	−129.0	2.0	3.9	−1.9
1961–1971	382.6	340.8	41.8	5.4	4.8	0.6
1869–1910	2149.3	1396.3	753.0	47.8	31.0	16.8
1910–1951	285.6	150.9	134.7	4.3	2.3	2.0
1951–1971	522.5	609.7	−87.2	7.5	8.8	−1.3

[a]Taken from Findl and Helczmanovszki (1977).

equivalent to almost 50% of the total population in 1869 (4.5 million, from Table 1). Of this figure, 1.4 million were gained through natural increase (excess of births over deaths) and 0.75 million through migration. The net migration gain of Vienna alone over this period was nearly 670,000 people.

Despite the rapidly growing importance of Vienna in the first two decades of the twentieth century, the number of migrants entering the area corresponding to present-day Austria decreased quite markedly between 1869 and 1910. Nevertheless, Vienna continued to grow, due partly to a sharp rise in the natural increase caused by the large proportion of young people in Vienna, and partly to the fact that many of the people moving to the capital were originally from what are now the Austrian provinces and so did not appear in the net migration figures. The rise in the natural increase in Austria between 1869 and 1910 may be attributed to a rapid decline in the death rate, which fell from 31.0 per thousand in the period 1871–1875 to 18.8 per thousand between 1911 and 1913 (Table 3).

The end of the first world war marked a turning point in the demographic history of Austria. Population growth fell very rapidly: between 1910 and 1951 the population grew by only 285,000, more than half of which was due to natural increase. Both natural increase and net migration were at much lower levels than in the prewar period (Table 2); the loss of 200,000 lives during the first world war and the subsequent reduction in fertility rates led to a net excess of deaths over births of 128,600 in the period between 1910 and 1923 (negative natural increase). Natural increase remained at a low level throughout

TABLE 3 Components and rates affecting natural increase in what is now Austria from 1871 to 1975.[a]

Period	Average annual number of births	Annual birth rate	Average annual number of deaths	Annual death rate	Average annual natural increase	Annual rate of natural increase
1871–1875	160,447	34.5	144,208	31.0	16,239	3.5
1876–1880	165,180	34.0	139,959	28.8	25,221	5.2
1881–1885	166,763	32.9	142,868	28.1	23,895	4.8
1886–1890	169,707	32.0	142,187	26.8	27,520	5.2
1891–1895	176,328	31.7	141,688	25.5	34,640	6.2
1896–1900	184,507	31.5	136,523	23.3	47,984	8.2
1901–1905	187,071	30.3	135,226	21.9	51,845	8.4
1906–1910	180,446	27.8	131,784	20.3	48,662	7.5
1911–1913	167,608	24.9	126,587	18.8	41,021	6.1
1921–1925	145,393	22.2	103,377	15.8	42,016	6.4
1926–1930	117,405	17.7	96,312	14.5	21,093	3.2
1931–1935	97,045	14.4	90,936	13.5	6,109	0.9
1936–1938	89,476	13.2	91,289	13.5	−1,813	−0.3
1946–1950	116,941	16.8	88,655	12.7	28,286	4.1
1951–1955	104,241	15.0	84,930	12.2	19,311	2.8
1956–1960	120,923	17.3	87,935	12.6	32,988	4.7
1961–1965	132,678	18.5	90,292	12.6	42,386	5.9
1966–1970	123,155	16.8	96,085	13.1	27,070	3.7
1971–1975	100,354	13.4	95,158	12.7	5,196	0.7

[a]Taken from Findl and Helczmanovszki (1977).

the years of economic recession following the war, becoming negative once again between 1935 and 1938.

Although the second world war cost the lives of 270,000 Austrians, the pronatalist demographic policy pursued after the annexation of Austria by the Third Reich led to a large net excess of births over deaths between 1939 and 1945, against the general tendency of the rate of natural increase to fall in the previous two decades. The final year of the war (1945) was marked by a negative natural increase, which was then followed by a sharp rise in the excess of births over deaths as families were reunited, producing the postwar "baby boom".

1.2 Population Dynamics in Austria between 1951 and 1971

The changes in the size of the population and its distribution between the nine provinces over the period 1951–1971 are summarized in Table 4. The main trend seems to be a shift of population from the east to the west of the country: the proportion of the population living in the three eastern provinces of Vienna,

TABLE 4 Percentage change in the population of each province between 1951 and 1961, and between 1961 and 1971, given in terms of the percentage gained through natural increase and the percentage gained through net migration over these periods.

Province	Percentage change, 1951–1961			Percentage change, 1961–1971		
	Total population	Natural increase	Net migration	Total population	Natural increase	Net migration
Vienna	0.8	−6.3	7.1	−0.8	−4.7	3.9
Lower Austria	−2.0	3.6	−5.6	2.9	3.5	−0.6
Burgenland	−1.9	6.9	−8.8	0.4	4.2	−3.8
Carinthia	4.1	10.0	−5.9	6.2	9.2	−3.1
Styria	2.5	6.2	−3.7	4.8	6.6	−1.9
Upper Austria	2.0	7.8	−5.8	8.1	8.9	−0.8
Salzburg	5.8	8.4	−2.6	15.7	11.3	4.4
Tyrol	7.6	9.1	−1.5	16.8	13.1	3.7
Vorarlberg	14.4	10.6	3.8	19.9	15.8	4.2
Austria	2.0	3.8	−1.8	5.4	4.8	0.6

Burgenland, and Lower Austria decreased from 47.5% to 44.3% between 1951 and 1971, while the proportion living in the western provinces of Salzburg, Tyrol, and Vorarlberg increased from 13.7% to 16.3% over the same period. Rural areas lost more than 8% of their population through net out-migration between 1951 and 1961, and more than 4% between 1961 and 1971. The main areas of rural out-migration are the borders with Czechoslovakia and Hungary and the mountainous farming regions in central Austria. Areas of mining and heavy industry (in some parts of Styria, for example) are also subject to large out-migration rates.

2 CURRENT PATTERNS OF SPATIAL POPULATION GROWTH

Before analyzing current trends in population growth and distribution in Austria, it is worth spending some time in a short discussion of the choice of the regional units used for the study and the methods used to collect the data.

2.1 Regional Disaggregation

As already mentioned in the introduction, the regional units chosen for the demographic analysis should fulfill two main criteria: statistical data must be available at the appropriate level of disaggregation, and the regions should, if possible, be on the same scale as the units used in other work carried out as

part of the comparative study organized by Rogers at the International Institute for Applied Systems Analysis (IIASA).

Austria is a federal country composed of nine provinces (Länder), which are subdivided into 98 districts (Bezirke) and 2656 communities (Gemeinden); demographic data are available at each of these levels. The numbers of districts and communities quoted above are the numbers recorded at the census held in 1971; the number of provinces and districts has not changed recently, although the number of communities seems to be decreasing (3371 in 1937, 2656 in 1971, and 2301 in 1977).

A total of 523,509 migrations within Austria were recorded in the period 1966–1971; of these migrations, approximately 170,000 (32.5%) were between provinces, 180,000 (34.5%) were between districts, and 173,000 (33%) were between communities. Thus the number of migrations at each level seems to be remarkably uniform.

At first sight it seems that the nine provinces provide the ideal level of disaggregation (Figure 2), but on closer inspection it is clear that the populations of these areas vary too widely to produce very useful results (Table 5). In addition, not all of the provinces can be regarded as separate socioeconomic regions: for example, Lower Austria and a large part of Burgenland form the traditional hinterland of Vienna. This has led to a situation in which the provincial government of Lower Austria is based in Vienna, and the capital of Burgenland (Eisenstadt) functions as a capital only in the formal sense of the word. It

TABLE 5 Area, population, and population density of the nine provinces, four regions, and the whole of Austria in 1971.

Province or region	Area (km^2)	Population	Population density (people/km^2)
Vienna	414	1,614,841	3,901
Lower Austria	19,170	1,414,168	74
Burgenland	3,959	272,119	69
Carinthia	9,533	525,728	55
Styria	16,385	1,192,100	73
Upper Austria	11,978	1,223,444	102
Salzburg	7,155	401,766	56
Tyrol	12,648	540,771	43
Vorarlberg	2,601	271,473	104
East	23,543	3,301,128	140
South	25,918	1,717,828	66
Central	19,133	1,625,210	85
West	15,249	812,244	53
Austria	83,843	7,456,410	89

therefore seems reasonable to regard these three provinces as an integrated socioeconomic region (the East) and use this aggregated region in the demographic analysis. An interesting illustration of the natural connection between these provinces is provided by the fact that, of the total number of migrations between provinces recorded between 1966 and 1971, nearly half involved migration between two of the three eastern provinces.

Once the decision had been made to use the aggregated region East for the analysis, it became necessary to combine the rest of the provinces into a number of comparable regions (South, Central, and West) using similar criteria; however, it should be noted that the South (Carinthia and Styria), Central (Upper Austria and Salzburg), and West (Tyrol and Vorarlberg) regions are not regarded as independent socioeconomic units like the East, but only as areas which appear relatively homogeneous for demographic purposes (Figure 3).

The four-region aggregation has the advantage that it is more compatible with the scale of analysis used in other reports in the comparative study than the nine-province system; however, since data are provided at the provincial level and most planning is also carried out at this level, it was decided to make a parallel study of the births, deaths, and migrations in the nine Austrian provinces, subject to the reservations noted earlier.

Two separate analyses were therefore carried out: one for the four regions (East, South, Central, and West) and the other for the nine provinces (Vienna, Lower Austria, Burgenland, Carinthia, Styria, Upper Austria, Salzburg, Tyrol, and Vorarlberg).

2.2 Data Collection

The official body responsible for collecting demographic data in Austria is the Demographic Department of the Austrian Central Bureau of Statistics. The data used in this report were taken from their results (Österreichisches Statistisches Zentralamt 1972, 1970–1974) and are given in full in Appendix A. Some of the data discussed in the following sections are part of a special analysis of census data carried out by the Central Bureau of Statistics for the Austrian Institute for Regional Planning (Österreichisches Institut für Raumplanung 1976).

2.2.1 BIRTHS

Data on births are available for both communities and districts: at the community level it is possible to obtain the total number of births per year, disaggregated by sex, while at the district level it is also possible to obtain a disaggregation by the age of the mother (one-year age groups).

2.2.2 DEATHS

The official statistics published by the Central Bureau of Statistics give only the total number of deaths per year, disaggregated by sex, and the total number of

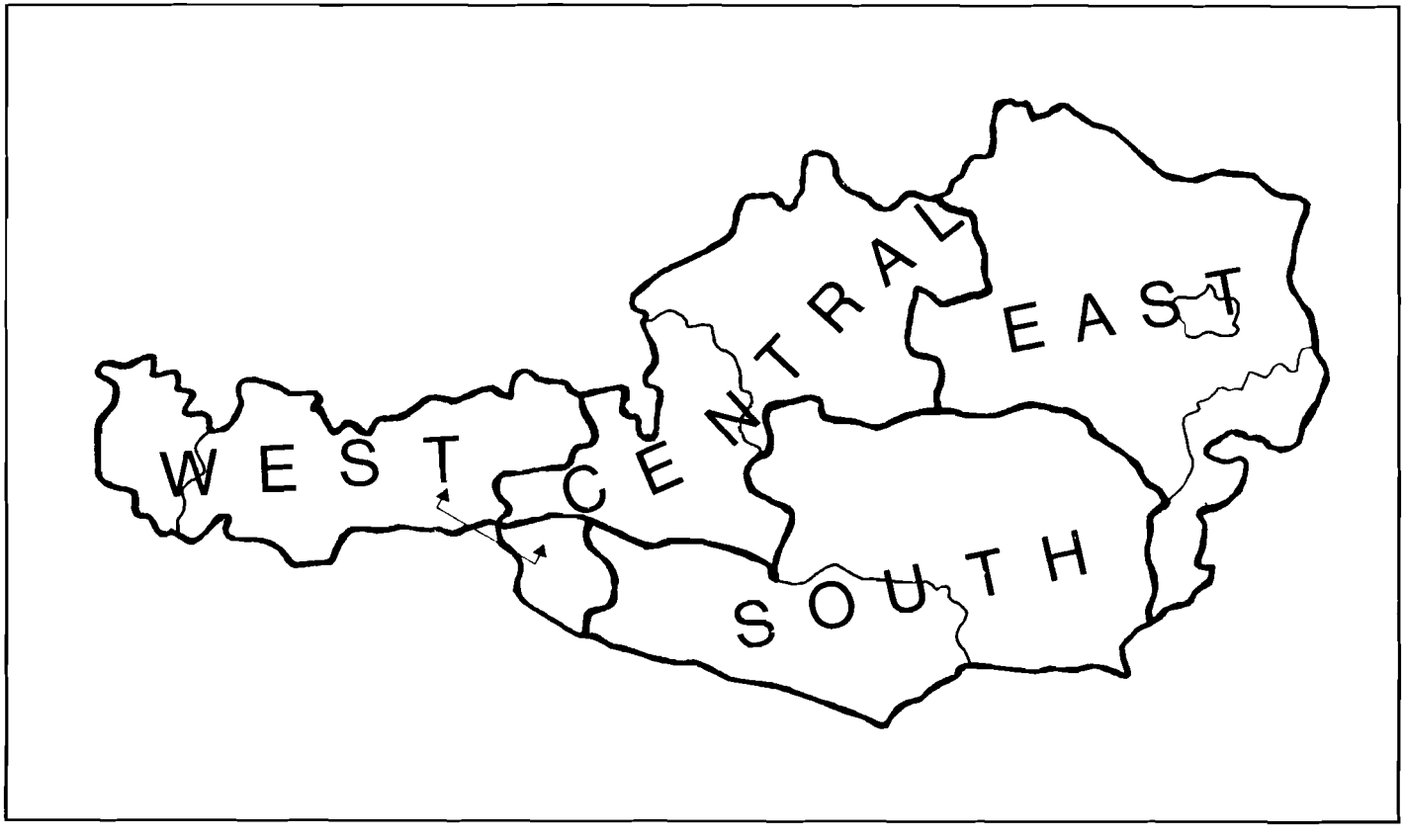

FIGURE 3 The four aggregated regions used in the multiregional analysis. The East is composed of Vienna, Lower Austria, and Burgenland; the West of Tyrol and Vorarlberg; the South comprises Carinthia and Styria; and the Central region is made up of Upper Austria and Salzburg.

infant deaths per year for each community and district. However, the Bureau will supply data disaggregated according to the age at death (five-year age groups) on request.

2.2.3 MIGRATION

Data on migration are not so easily obtained as those on births and deaths because migration is not monitored using a registration system. There are nevertheless two methods of obtaining information on migration.

The first is to derive the data indirectly by comparing the number of people recorded in each community and district by the 1961 census with the corresponding figures obtained in the 1971 census; it is then possible to use the method of residuals to calculate the net migration flow, disaggregated by sex, between communities and between districts. An analysis carried out by the Austrian Institute for Regional Planning (Österreichisches Institut für Raumplanung 1976) has also made data disaggregated by the age of the migrant (five-year age groups) available at the district level.

The second method of obtaining migration data is more direct, and involves analysis of the answers to a question in the 1971 census in which each individual was asked to supply his place of residence five years earlier (in 1966). This yields data on the migration which took place between 1966 and 1971, but obviously cannot include information on migrants less than five years old in 1971, the number of people migrating to different countries (emigrating), or the number of migrants who moved away and returned to the same region within the five-year period under consideration. Data on in- and out-migration are available from this source at both community and district levels; the community data are disaggregated only by sex, while those for the districts are classified according to the sex, age group, and occupation of the migrant.

At the provincial level, it is possible to obtain origin–destination matrices disaggregated by the age of the migrant (five-year age groups) for the total population and for each sex separately; further disaggregation of the data into employed and unemployed migrants is also possible. Interdistrict migration matrices of this type disaggregated into four age groups have been prepared by the Central Bureau of Statistics and used in the multiregional projection model at the Austrian Institute for Regional Planning (Sauberer 1976, Fischer and Sauberer 1979).

2.2.4 POPULATION SIZE

Most demographic models are based on *rates* (the number of events occurring in a given region or category for every individual in that region or category) and so it is very important to know the size of the population to which given data refer: a record of twenty births in a particular region has no demographic meaning unless the population of the region is also known.

In Austria, population data disaggregated by age and place of residence are available only from the censuses held every ten years – the most recent results are for 1961 and 1971. The calculation of migration rates immediately presents a problem because, as mentioned in the previous section, the migration data correspond to the period 1966–1971; it is impossible to calculate the exact size of the population in 1966 because of the unknown number of international migrants.

2.3 Data Preparation

The multiregional population analysis is based on the following data from the Central Statistical Office (Österreichisches Statistisches Zentralamt 1970–1974):

1. Annual number of births, disaggregated by the province of birth and the age of the mother (one-year age groups), taken from current demographic statistics.
2. Number of deaths, disaggregated by the province of death and the age of the deceased, over the five-year period from 1969 to 1973 inclusive (taken from current demographic statistics).
3. Number of migrations, disaggregated by the province of origin, the province of destination, and the age of the migrant, over the period 1966–1971 (taken from census data).
4. Total population, disaggregated by province of residence and age of resident (five-year age groups), taken from the 1971 census.

However, the data listed above are not in a form suitable for direct use in the multiregional population model, the results of which are discussed in Section 3; it is first necessary to make a number of adjustments and assumptions, which are described below.

1. The model requires the number of births between the beginning of May 1966 and the census in May 1971; this is assumed to be approximately five times the number recorded by the census.
2. The model requires the number of deaths between 1966 and 1971; this is assumed to be equal to the figure given in the data for the period 1969–1973 inclusive.
3. The model requires the number of migrations between 1966 and 1971; this is derived from a 1971 census question on place of residence five years earlier, i.e., in 1966. An origin–destination matrix is constructed, with a typical element $m_{ij}(x)$ representing the number of people in region j aged x to $x + 5$ at the time of the census (1971) who lived in region i five years earlier (in 1966). This necessarily means that the migration of children aged less than five in 1971 is not recorded $[m_{ij}(0) = 0]$. To overcome this problem, the data m_{ij} for each age

group were transferred to the group five years younger to produce a new matrix with typical elements $\hat{m}_{ij}$ such that

$$\hat{m}_{ij}(x) = m_{ij}(x + 5)$$

However, this simple but crude procedure cannot be applied to the data for the groups aged 80–84 and 85 and over. In this case it is assumed that the migration rates in the two age groups are the same, which leads to the equations

$$\hat{m}_{ij}(80) + \hat{m}_{ij}(85) = m_{ij}(85)$$

$$\frac{\hat{m}_{ij}(80)}{P_i(80)} = \frac{\hat{m}_{ij}(85)}{P_i(85)} = \frac{\hat{m}_{ij}(80) + \hat{m}_{ij}(85)}{P_i(80) + P_i(85)}$$

where $P_i(x)$ is the number of people aged x to $x + 5$ living in region i. These equations may be combined to produce estimates of the revised origin–destination matrices for the two oldest population groups:

$$\hat{m}_{ij}(80) = P_i(80) \frac{m_{ij}(85)}{P_i(80) + P_i(85)}$$

$$\hat{m}_{ij}(85) = P_i(85) \frac{m_{ij}(85)}{P_i(80) + P_i(85)}$$

4. The model requires the size of the population halfway through the period 1966–1971; this is assumed to be the same as the value recorded by the 1971 census.

2.4 Regional Population Dynamics

The geographical areas and populations of the nine provinces and the four regions used in the multiregional analysis have already been presented in Table 5. It is immediately clear from this table that the urban province of Vienna contains a very large proportion of the population, even though it is by far the smallest of the provinces: over 20% of the Austrian population actually live in Vienna, while nearly 25% live within commuting distance of the capital. The aggregated region comprising Vienna, Lower Austria, and Burgenland also has a disproportionately high share of the population: over 44% of Austrians live in the East, which covers only 28% of the total land area of the country.

This unbalanced population distribution has led to a very odd pattern in the population of the major cities. The rank–size rule suggests that if the population of the largest city in a country is 1.6 million (Vienna), the second-largest

city should have a population of 811,000; however, the *total* population of the eight provincial capitals only just exceeds this figure. The second-largest city, Graz, actually has only 250,000 inhabitants. The difference in the sizes of the cities has been eroded slightly in recent years by the combination of a falling birth rate not quite matched by greater in-migration in Vienna, and increased population growth in the other major cities.

One of the main reasons for regional differences in population dynamics is the difference in the age structure of the population between the regions. As discussed in the following section, the population of the East is considerably "older" than those of the other three aggregated regions; the average age of an inhabitant of the East is 39, as compared with an average age of 34 in the South and Central regions, and 32 in the West. More than 54% of the people aged 65 years and over are found in the East, and more than half of these live in Vienna.

The other main cause of regional differences in population dynamics is to be found in the age-specific rates of fertility, mortality, and migration; these are considered in Sections 2.4.2, 2.4.3, and 2.4.4, respectively.

Finally, the relative importance of the two components of regional population growth, migration and natural increase (produced when there are more births than deaths), is discussed in Section 2.4.5.

2.4.1 AGE STRUCTURE OF THE REGIONAL POPULATION

The age structure (proportion of the population in each age group) of the inhabitants of Vienna, Styria, and Tyrol is illustrated in Figure 4; corresponding information is given in Figure 5 for the aggregated East, South, and West regions. (The populations of the provinces making up the South and Central regions have virtually the same age structure, represented by Styria in Figure 4 and the South in Figure 5.)

It is clear that the three provincial populations considered in Figure 4 have quite different age profiles; that of Vienna is particularly odd. A comparison of Figures 4 and 5 suggests that Tyrol and Styria are quite typical of the West and South regions, respectively, while the age profiles of Vienna and the East region show certain marked differences. However, all curves display local minima in the groups aged 50–55 and 35–40 in 1971: these may be explained by the large number of deaths in the group aged 18–29 during the second world war, and the fall in birth rates between 1931 and 1936 (see Table 3), respectively. The pronatalist policy pursued just before and during the second world war meant that there was hardly any drop in the number of births during the war, and therefore the 1971 age profile shows only a slight inflection between the ages of 25 and 30. The only exception is Vienna, which has a *peak* in this age group, presumably caused by in-migration of young people from Burgenland and Lower Austria since the profile for the East region shows no trace of such a peak.

The main differences in the age structure of the provinces (and regions) lie at the ends of the age spectrum: in the groups less than 20 or more than 55

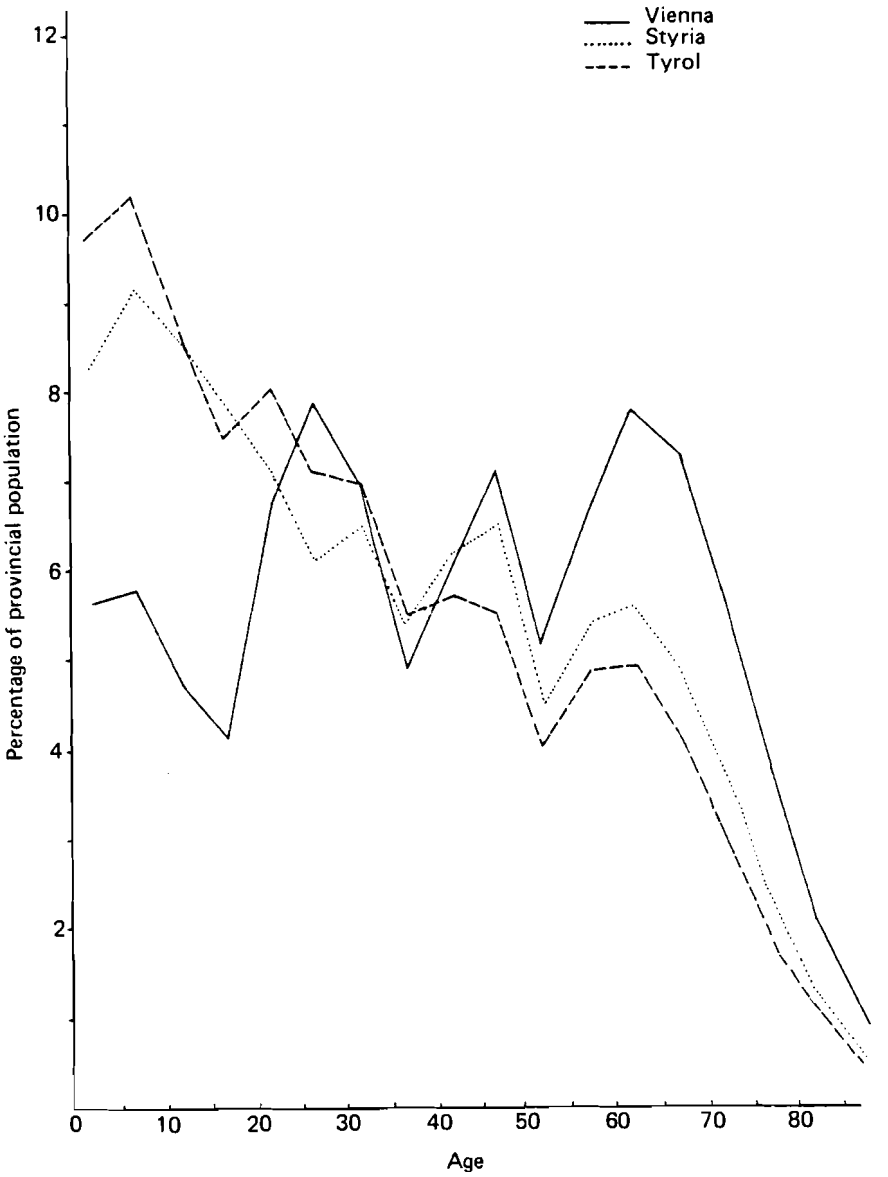

FIGURE 4 Age structure of the inhabitants of Vienna, Styria, and Tyrol in 1971.

years old in 1971. The East region, and particularly Vienna, has a much lower proportion of young people than do the South and Central regions, while the West has the "youngest" population of all the regions. Conversely, the East region, and particularly Vienna, has a much "older" population than the South and Central regions, while the West has a much lower proportion of elderly

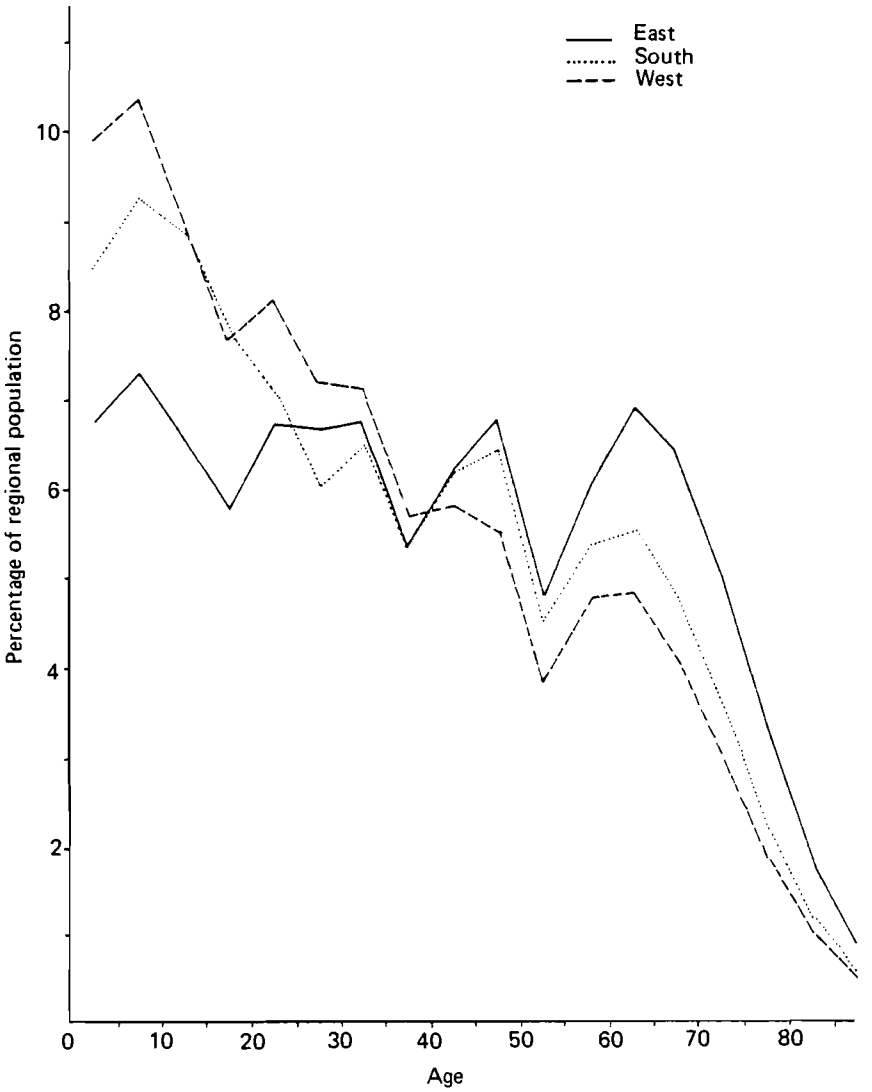

FIGURE 5 Age structure of the inhabitants of the East, South, and West regions in 1971.

people than any other region. This is shown clearly in Table 6, which gives the percentages of the population of each province or region in the pre-labor-force age groups (0–19), of labor-force age (20–64), and in retirement (over 65 years old); the mean age of the population in each province and region is also given. As discussed above, the proportion of people aged between 20 and 64 does not vary widely between the provinces (ranging from 52.6% in Vorarlberg to 59.5% in Vienna) and the difference is even less for the regions (52.9% in the West to 56.2% in the East). However, the proportions in the younger and older age

TABLE 6 Age structure and mean age of the population in each province and region (1971).

Province or region	Percentage of population in age group[a]			Mean age (years)
	0–19	20–64	65+	
Vienna	20.5	59.5	20.0	41.8
Lower Austria	31.9	52.9	15.2	36.5
Burgenland	33.5	53.3	13.2	35.5
Carinthia	36.2	52.3	11.4	33.6
Styria	33.6	53.6	12.8	34.9
Upper Austria	35.3	52.7	12.0	33.9
Salzburg	34.4	54.5	11.2	33.5
Tyrol	36.4	53.0	10.6	32.5
Vorarlberg	37.8	52.6	9.5	31.3
East	26.5	56.2	17.4	39.0
South	34.4	53.2	12.4	34.5
Central	35.1	53.2	11.8	33.8
West	36.8	52.9	10.3	32.1

[a]The percentages of the regional population in each age group may not sum to exactly 100% due to independent rounding.

groups show a much greater variation: only 20.5% of the population of Vienna is less than 20 years old, while the corresponding figure for Vorarlberg is almost double, at 37.8%. People aged 65 and over constitute 20% of the population of Vienna and only 9.5% of the population of Vorarlberg, i.e., the proportion of elderly people is more than twice as high in Vienna as in Vorarlberg. Once again the differences are not so pronounced at the four-region level, although it is still clear that the East has by far the "oldest" population (17.4% aged 65 and over), the West has the "youngest" population (36.8% aged 19 and less), and the South and Central regions lie somewhere in between. This is also reflected in the mean ages, which range from 39.0 in the East to 32.1 in the West, rising as high as 41.8 in Vienna and falling to 31.3 in Vorarlberg.

The effect of the regional (provincial) age structure of the population is illustrated by the differences between the crude rates of birth, death, and migration, which give the number of events per thousand members of the regional population (regardless of age structure), and the corresponding gross rates, which are calculated by summing the age-specific rates and multiplying by five (the width of the age group). The gross rates thus provide a measure of the number of events which might be expected to occur over a lifetime spent in the region in question. This aspect is discussed in more detail in the sections on regional fertility, mortality, and migration differentials, which follow.

TABLE 7 Age-specific fertility rates (number of children born per thousand women) and total fertility rates[a] observed in Austria in 1971 and 1978.[b]

Year	Fertility rates of women in different age groups								Total fertility rate
	10–14	15–19	20–24	25–29	30–34	35–39	40–44	45+	
1971	0.15	56.08	150.38	109.30	73.18	39.23	11.55	0.76	2.20
1978	0.11	35.77	117.24	97.79	47.55	19.47	5.92	0.39	1.62

[a]The total fertility rate is calculated by summing the age-specific rates and multiplying the result by five (the width of the age group). It represents the average number of children born to each woman in a lifetime assuming that all women live through all fertile age groups (i.e., the effects of mortality before the end of the reproductive period are not included).
[b]Data taken from the Demographisches Jahrbuch Österreichs (1978).

2.4.2 REGIONAL FERTILITY DIFFERENTIALS

Table 7 shows that between 1971 and 1978 fertility rates in Austria decreased by an average of more than 25%. Fertility rates fell in all age groups, but the reduction was particularly marked in the cases of women over thirty or under twenty years of age.

The current age-specific fertility rates calculated using the assumptions listed in Section 2.3 are given in Appendix B for both the nine-province and four-region systems. These data are illustrated in Figure 6 for the provinces of Vienna, Burgenland, and Vorarlberg. It is clear from the figure that the general level of fertility in the urban province of Vienna is much lower than in the more rural areas; this is also demonstrated by the values of the gross reproduction rate (GRR)*, which range from 0.82 in Vienna to 1.31 in Vorarlberg. The curves for the eastern provinces of Burgenland and Vienna both display a sharp peak at the age of 22; the curve for the western province of Vorarlberg also reaches a maximum at this age, but declines only very slowly until the age of 27, after which it falls away rapidly. The mean age at childbirth is almost one year greater in the West than in the South and Central regions (27.8 as compared with 26.9), and nearly two years greater than in the East (26.0).

2.4.3 REGIONAL MORTALITY DIFFERENTIALS

The age-specific mortality rates in the nine provinces and four aggregated regions are given in Appendix B; the age profile of mortality does not seem to show any significant regional variations (see Figure 7). Death rates are in general lower in the West than elsewhere, as indicated by the gross mortality rates*: 2.77 in Tyrol and Vorarlberg as compared with 3.13 in the eastern province of

*Gross rates are calculated by summing the age-specific rates and multiplying by five (the width of the age group). The gross rates thus provide a measure of the number of events which might be expected to occur over a lifetime, and are unaffected by the age structure of the population.

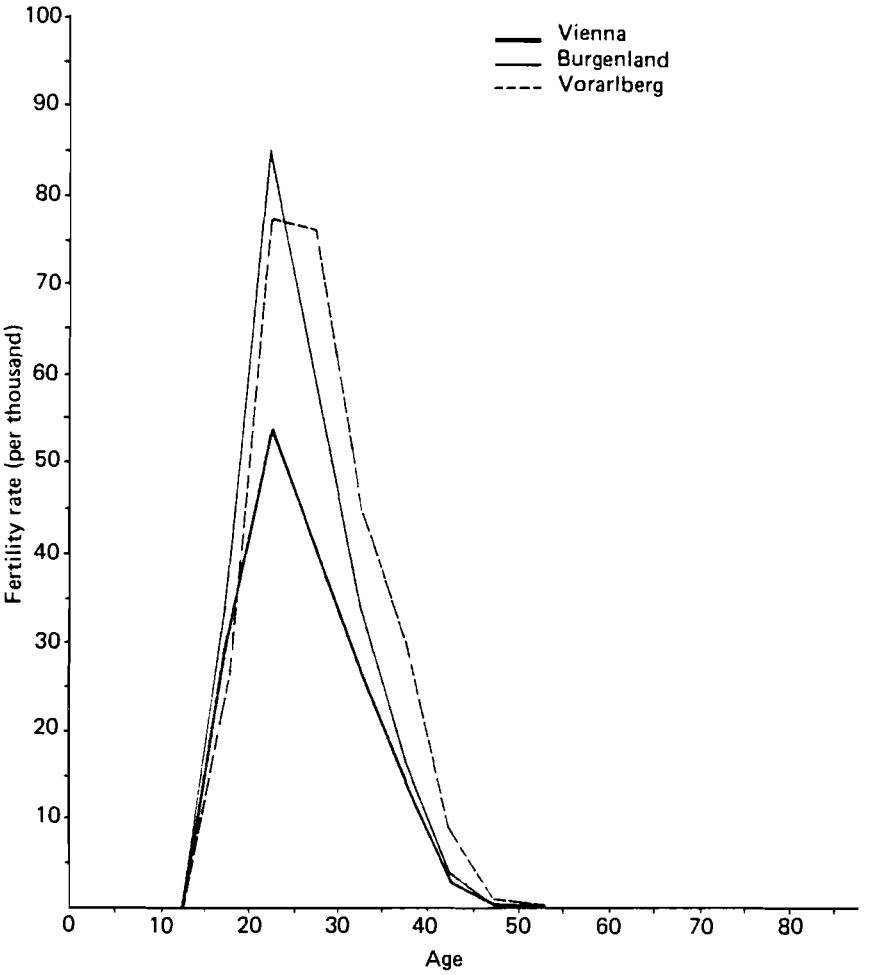

FIGURE 6 Age-specific fertility rates (per thousand) in the provinces of Vienna, Burgenland, and Vorarlberg in 1971.

Burgenland, 3.03 in the southern province of Styria, and 3.04 in the central province of Upper Austria. The infant mortality rate is still quite high, ranging from 4.7 per thousand in Tyrol (in the West) to 6.2 per thousand in Carinthia (in the South). The crude death rate (number of deaths per thousand) is much higher in the East than elsewhere, but this is merely a reflection of the regional age structure of the population – although Vienna is the province with the highest crude death rate (17.1 per thousand), it does not have the highest mortality rate in any of the age groups considered. The average (mean) age at death shows virtually no regional variation, ranging from 78.5 in Carinthia to 78.9 in Tyrol.

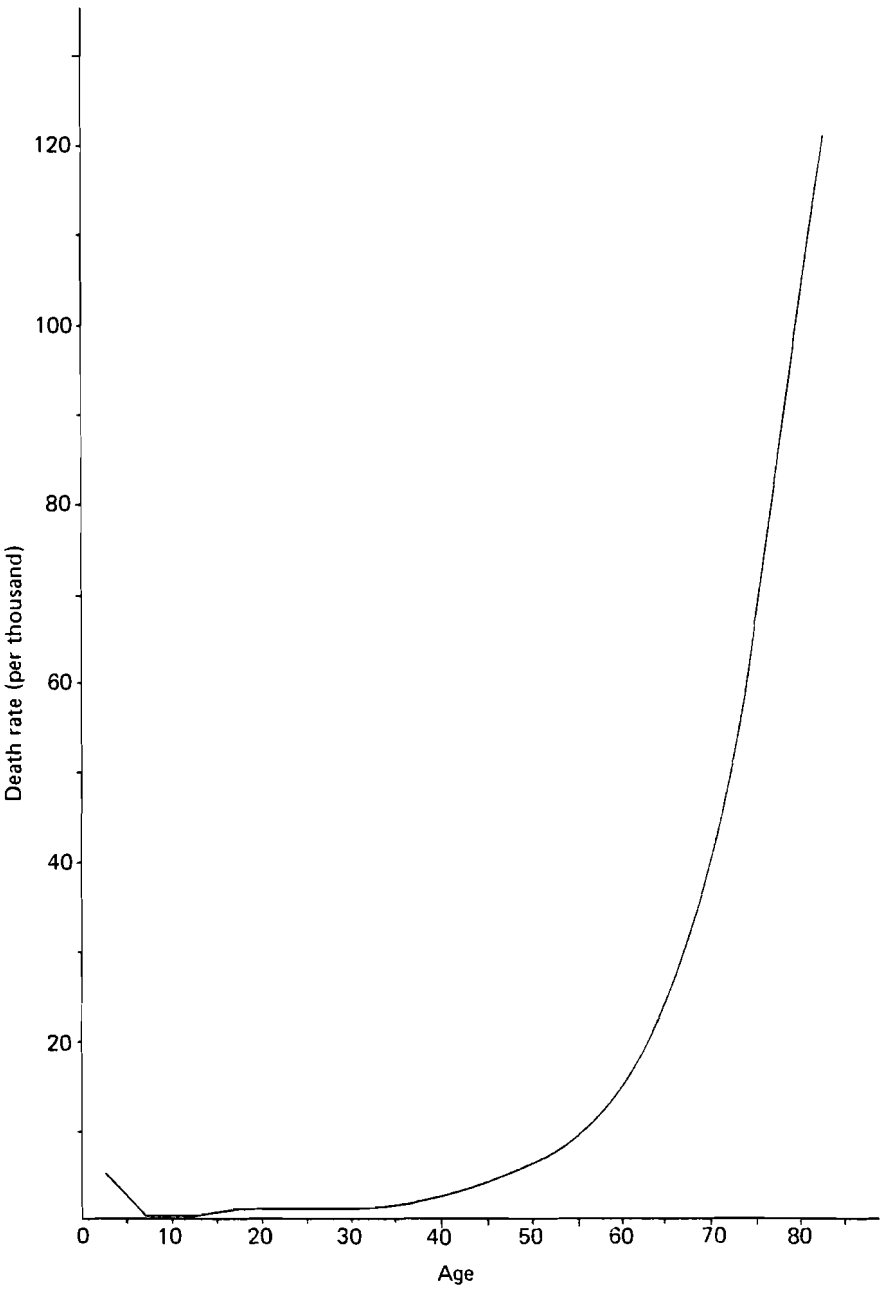

FIGURE 7 Age-specific mortality rates (per thousand) between 1969 and 1973. This curve is virtually the same for all provinces and regions.

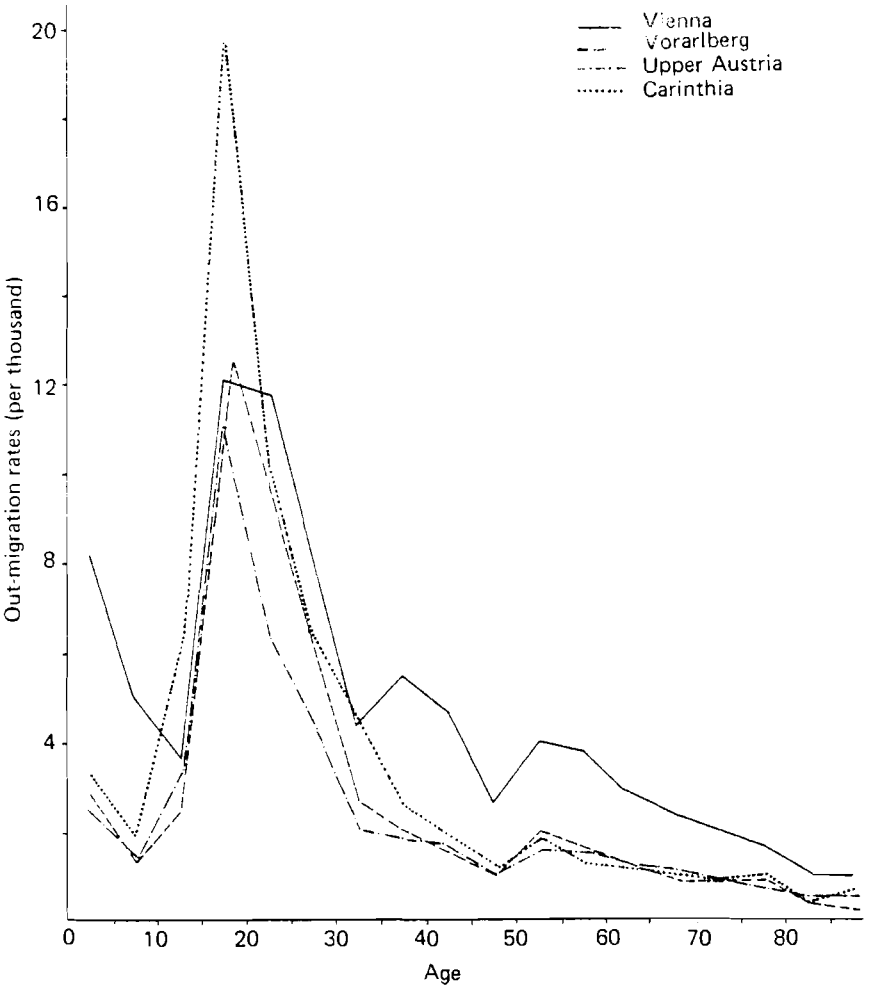

FIGURE 8 Age-specific out-migration rates (per thousand) for the populations of Vienna, Vorarlberg, Upper Austria, and Carinthia between 1966 and 1971.

2.4.4 REGIONAL MIGRATION DIFFERENTIALS

Appendix B contains the migration rates, disaggregated by age, representing the movement of people between provinces and between regions. The age profiles of migrants leaving (out-migrating from) Vienna, Carinthia, Upper Austria, and Vorarlberg are illustrated in Figure 8. The curve corresponding to migration from Vienna is much flatter than the others, with the rate of out-migration remaining almost constant between the ages of 22 and 27; the most common destination for migrants in this category is the neighboring province of Lower Austria. The rate of out-migration among people older than 35 is much greater

for Vienna than the other provinces; this flow is composed largely of return migrants going back to their province of origin. The age profiles for Carinthia, Upper Austria, and Vorarlberg all peak at an age of about 20, with this maximum rate being almost twice as high in Carinthia as in the other two provinces. Most of the young migrants from Carinthia move to Styria or Vienna, while those from Upper Austria choose Salzburg or Vienna, and young migrants from Vorarlberg tend to go to Tyrol. The main cause of this movement among young people is the greater opportunity for education, training, and employment in the larger provincial capitals of Vienna, Styria, Salzburg, Upper Austria, and Tyrol. It is clear that the geographical position of the provinces also plays a considerable part in the choice of destination; Appendix A shows that between 1966 and 1971 a total of 781 people aged between 15 and 25 left Vorarlberg for neighboring Tyrol, while only 375 found their way to the much more distant province of Vienna. This tendency to migrate to provinces which are close rather than to those which are further away is also illustrated in Table 8, which gives the crude rates of migration between the nine provinces. The table shows that migration to the neighboring province of Lower Austria accounts for over two-thirds of the migrations out of Vienna, while migration to Vienna is responsible for nearly three-quarters of the migration from Lower Austria. This is demonstrated even more clearly in Table 9, which gives the crude migration rates for the four aggregated regions East, South, Central, and West. The total crude migration rates given for the regions in this table are much smaller than the corresponding figures for the provinces in Table 8; this is because migration between the provinces within each region is necessarily excluded in Table 9.

The largest total out-migration rate (7.03 per thousand) is experienced in the small agricultural province of Burgenland, and is largely a result of young people moving the relatively short distance to the federal capital, Vienna. Upper Austria has the smallest total out-migration rate (2.98 per thousand), possibly because the province has important industrial and agricultural sectors, as well as a thriving tourist industry, and can provide sufficient employment for the young people who grow up there.

There is a large flow of migrants to Vienna from all areas of the country; Vienna is either the most popular or the second most popular destination from all provinces except Vorarlberg. The most unpopular destination of migrants from provinces in the South, West, and Central regions is Burgenland. This is reflected in the data given in Table 10, which shows the number of arrivals, departures, and corresponding net gain (or loss) through migration in the nine regions and the four provinces between 1966 and 1971; the average annual net migration rate is also given. Four provinces actually gained population through migration: Vienna, Salzburg, Tyrol, and Vorarlberg. The other five provinces lost population through migration, with Burgenland having the most negative net migration rate.

At the regional level, Table 9 shows that the South had the highest crude out-migration rate, while the East had the lowest. The East was the most likely

TABLE 8 Crude rates of migration (per thousand) between provinces, 1966–1971.[a]

Province of destination	Crude rates of migration from each province								
	Vienna	Lower Austria	Burgenland	Carinthia	Styria	Upper Austria	Salzburg	Tyrol	Vorarlberg
Vienna	0.0	4.8	4.2	1.0	0.9	0.7	0.9	0.5	0.5
Lower Austria	3.5	0.0	1.6	0.3	0.5	0.5	0.4	0.2	0.2
Burgenland	0.2	0.2	0.0	0.04	0.1	0.02	0.03	0.02	0.04
Carinthia	0.2	0.09	0.05	0.0	0.5	0.09	0.4	0.4	0.4
Styria	0.3	0.3	0.7	1.2	0.0	0.3	0.6	0.4	0.7
Upper Austria	0.4	0.7	0.2	0.3	0.4	0.0	1.6	0.5	0.3
Salzburg	0.2	0.2	0.09	0.6	0.5	0.9	0.0	0.6	0.3
Tyrol	0.2	0.1	0.08	0.8	0.4	0.3	0.8	0.0	1.1
Vorarlberg	0.06	0.06	0.09	0.5	0.3	0.07	0.2	0.5	0.0
Total[b]	5.03	6.41	7.03	4.71	3.59	2.98	4.83	3.07	3.60

[a] Taken from Appendix B.
[b] The total crude out-migration rate may not be equal to the sum of the destination-specific rates due to independent rounding.

TABLE 9 Crude rates of migration (per thousand) between aggregated regions, 1966–1971.[a]

Region of destination	Crude rates of migration from each region			
	East	South	Central	West
East	0.0	1.5	1.3	0.8
South	0.5	0.0	0.6	0.9
Central	0.7	0.9	0.0	0.9
West	0.2	0.9	0.5	0.0
Total[b]	1.3	3.2	2.4	2.5

[a]Taken from Appendix B.
[b]The total crude out-migration rate may not be equal to the sum of the destination-specific rates due to independent rounding.

TABLE 10 Number of migrants arriving in and departing from each province and region between 1966 and 1971, with the corresponding net population gain and average annual net migration rate.

Province or region	No. of arrivals	No. of departures	Net gain	Net migration rate
Vienna	55,904	40,611	15,293	1.894
Lower Austria	38,911	45,304	−6,393	−0.904
Burgenland	4,701	9,562	−4,861	−3.573
Carinthia	7,681	12,370	−4,689	−1.784
Styria	13,847	21,396	−7,549	−1.267
Upper Austria	16,405	18,223	−1,818	−0.297
Salzburg	15,063	9,707	5,356	2.666
Tyrol	11,690	8,303	3,387	1.253
Vorarlberg	6,170	4,896	1,274	0.939
East	26,242	22,203	4,039	0.245
South	15,535	27,773	−12,238	−1.425
Central	22,815	19,277	3,538	0.435
West	14,924	10,263	4,661	1.148

destination for migrants coming from the South and Central regions, and the least likely for people moving from the West. The largest population flow from the East was directed toward the Central region, with the West the most unpopular region of destination for people from the East. Table 10 shows that the South was the only region to lose population, the net gains being shared almost equally by the East, West, and Central regions.

The average age of the migrants ranged from 26.3 for people moving from Burgenland to 31.8 for people leaving Vienna. In general, the mean age of migrants entering a province with a net gain through migration was lower than the mean age of the migrants leaving it; the reverse is true of provinces which suffered a net loss through migration. However, this is not the case for the regions: though the Central region made a net population gain through migration, the average age of people entering the region was *greater* than that of those leaving it.

2.4.5 COMPONENTS OF REGIONAL POPULATION GROWTH

The growth of a regional population is determined by the combination of four factors: the number of births in the region, the number of deaths in the region, the number of people arriving in the region, and the number of people departing from the region. The number of births minus the number of deaths is generally called the *natural increase*; the number of arrivals minus the number of departures is known as the *net migration*. Migrants are divided into two main categories: those moving within Austria (interregional or interprovincial migrants), and those migrating to or from another country (international migrants). Only the first group is included in this analysis.

Table 11 summarizes the natural increase and the net (interregional or interprovincial) migration in the nine provinces and the four regions between

TABLE 11 Components of regional population growth, 1966–1971.

Province or region	1971 population	Natural increase	Net interregional migration	Population growth	Percentage change[a]
Vienna	1,614,841	−52,347	15,293	−37,054	−2.2
Lower Austria	1,414,161	−135	−6,393	−6,528	−0.5
Burgenland	272,119	2,555	−4,861	−2,306	−0.8
Carinthia	525,728	13,489	−4,689	8,800	1.7
Styria	1,192,100	17,606	−7,549	10,057	0.9
Upper Austria	1,223,444	27,984	−1,818	26,166	2.2
Salzburg	401,766	13,732	5,356	19,088	5.0
Tyrol	540,771	21,992	3,387	25,379	4.9
Vorarlberg	271,473	14,715	1,274	15,989	6.3
East	3,301,121	−49,927	4,039	−45,888	−1.4
South	1,717,828	31,095	−12,238	18,857	1.1
Central	1,625,210	41,716	3,538	45,254	2.9
West	812,244	36,707	4,661	41,368	5.4

[a]Population growth as a percentage of the (estimated) 1966 population. The 1966 population is not known exactly because the number of international migrations between 1966 and 1971 is not recorded; the population is estimated by subtracting the population growth through natural increase and net *interregional* migration from the population observed in 1971.

1966 and 1971. The total population growth is obtained by adding these two components together – this figure is also given in the table. As noted in an earlier section, it is not possible to obtain the exact size of the population in 1966 because of the unknown effects of international migration, and so the percentage change in the size of the regional population is given in terms of an estimated value.

Natural increase seems to play a more important part than net migration in determining overall population growth in all provinces except Burgenland and Lower Austria, and in all four regions. Although Vienna gained over 15,000 people through migration, it lost more than three times this number through an excess of deaths over births. Burgenland and Lower Austria were the only provinces with a fall in population caused by net out-migration. All three eastern provinces suffered a net loss in population, with the largest percentage change (−2.2) occurring in Vienna; the other provinces gained population to a greater or lesser degree. The western provinces, Tyrol and Vorarlberg, made the largest percentage gains (4.9 and 6.3, respectively); although this was due mainly to a high rate of natural increase, both provinces also profited from migration. Carinthia and Styria (in the South) also gained population through natural increase, but lost over 12,000 inhabitants to other parts of Austria.

Most of these differences can be attributed to the wide variations in the age structure of the regional and provincial populations.

3 MULTIREGIONAL POPULATION ANALYSIS

Multiregional population analysis grew out of a desire to investigate problems which could not be studied using the more conventional methods of single-region analysis. The traditional approach follows the changes in the population of a single region, assuming that the only means of entering and leaving the population are birth and death, respectively, and that age-specific rates of fertility and mortality take a given course. However, it is clearly unrealistic to exclude the effects of migration on population growth and redistribution, and to overcome this failing Rogers and his associates at the International Institute for Applied Systems Analysis (IIASA) have extended the single-region theory to describe, analyze, and project the changes in the population of a system of regions connected by migration flows (Rogers 1975, Willekens and Rogers 1978).* It is assumed in this report that each region is associated with characteristic rates describing fertility, mortality, and migration to every other region in the system, and that these age-specific rates remain constant; it is also assumed that migrants adopt the demographic rates of the region in which they live, regardless of their region of birth.

*Note that the country itself is regarded as closed to migration, i.e., migration to and from other countries is not considered in the analysis.

This approach is used in the following sections to analyze the demographic data for the nine provinces and four regions of Austria discussed previously. The most important results are obtained from the *multiregional life table*, which follows the progress of a group of people born at the same time in the same region; this is discussed in Section 3.1. The analysis also yields a number of new measures of fertility and migration; these are considered in Section 3.2. Finally, the regional populations that would be produced if 1971 rates of fertility, mortality, and migration were to remain unchanged for fifty years or longer are calculated, analyzed, and compared with other projections in Section 3.3.

3.1 Multiregional Life Table

The multiregional life table is one of the most important products of multiregional demographic analysis. It is generated by considering a hypothetical group of people (birth cohort) born at the same time in a given region or regions, and follows their progress as they migrate, and eventually die, in accordance with a calculated set of age- and region-specific mortality and migration rates (see Appendix C). As noted above, migrants are assumed to adopt the demographic rates of the region in which they live, rather than retaining those of their region of birth. The computer programs used to calculate the multiregional life tables are given in Willekens and Rogers (1978).

A life table can be interpreted in a number of different ways. If the initial size of each regional cohort, or radix, is set equal to 100,000, the life-table statistic $l_i(x)$ denotes the *number* of individuals among all regional cohorts who might be expected to survive to exact age x in a given region i. The complete life table may also be viewed as representing the age structure and regional distribution of a national stationary population (one in which the annual number of births is equal to the annual number of deaths) consistent with the observed mortality and migration rates, i.e., it may be seen as the structure of the total population at a given instant in time rather than as the evolution of a birth cohort over a lifetime. This stationary population, also known as the life-table population, may deviate considerably from the observed population since the latter is largely determined by past demographic rates. The results obtained from a life table describe the behavior of the stationary population rather than that of the observed population; they therefore depend only on the age-specific rates and not on the observed age composition or regional distribution. All of the life-table statistics are compatible with each other in that it is possible to deduce one set from another; each, however, provides a different way of looking at the data. The use of a representative sample of life-table statistics is illustrated with specific examples in the following sections.

3.1.1 LIFE HISTORY OF THE BIRTH COHORT

The life-table statistic used to trace the regional distribution and reduction in size of a birth cohort as the members grow older and eventually die is the

expected number of survivors in each region at age x. This has been calculated separately for cohorts of 100,000 people born in each of the nine provinces and in each of the four regions; the results are shown in Appendix C. As an example, Table 12 gives the expected number of survivors in each province at age x for an initial cohort of 100,000 people born in Burgenland. The table shows that 2595 of the initial cohort will die before the age of 5, and that, of those remaining, 94,646 will live in Burgenland and 2759 will live in other parts of Austria. At 10 years of age, 92,616 children born in Burgenland will live in their province of birth, though not all of them will have lived there continuously; some will have lived elsewhere at the age of 5 and returned to Burgenland when they were between 5 and 10 years old. Over 50% of the people born in Burgenland will live in their province of birth at the age of 60. It is clear that Vienna is the most popular destination for people born in Burgenland: 13,023 of the original 100,000 will live in Vienna at the age of 20, this figure rising to 17,461 at the age of 40.

It is obviously not possible to analyze the data for all age groups and for all provinces of birth in a short report of this nature; however, as an example, Tables 13 and 14 show the probabilities that an individual born in a given province or region will be living in the same or any other province or region at the age of 20. Although the figures given in these tables are influenced by the provincial (or regional) variations in the mortality rates, they are primarily a measure of the long-term effects of migration. It is clear that the probability of living in the province or region of birth at the age of 20 (given by the main diagonals of Tables 13 and 14) is very high for all areas, ranging from 0.75 in Burgenland to 0.90 in Tyrol, with even greater values being recorded for the aggregated regions. This is particularly remarkable since young people are generally regarded as the most mobile section of the population. Table 15 compares the proportions of the initial cohort expected to survive in the province (or region) of birth at the ages of 20, 35, and 65.

This table shows that Lower Austria and Burgenland retain a smaller proportion of their native population at the three ages considered than do any of the other provinces; however, the aggregated East region retains a *greater* proportion of the initial birth cohort at these ages than do the other aggregated regions. This reinforces the observation (Table 13) that most of the migration from Lower Austria and Burgenland is directed toward Vienna. The percentage of the native population remaining in the region of birth is lowest for the South, at all ages considered; this is because there is a not insignificant flow of migrants from this region to the more economically strong provinces in the East (see Table 13). However, it must be emphasized that all of the provinces and regions retain a remarkably high proportion of their native populations at all ages.

3.1.2 EXPECTATIONS OF LIFE

The same feature is also demonstrated by another life-table statistic: the number of years that a person aged x, born in a particular region, may expect to live

TABLE 12 Expected number of survivors at exact age x in each province for an initial cohort of 100,000 born in Burgenland.[a]

	Number of survivors living in each province									
Age	Total	Burgenland	Carinthia	Lower Austria	Upper Austria	Salzburg	Styria	Tyrol	Vorarlberg	Vienna
0	100,000	100,000	0	0	0	0	0	0	0	0
5	97,405	94,646	24	866	68	39	375	15	42	1,329
10	97,200	92,616	42	1,460	128	60	586	33	62	2,214
15	97,053	85,900	99	2,834	247	141	1,221	139	142	6,330
20	96,374	75,304	186	4,344	528	302	2,089	305	293	13,023
25	95,768	70,437	263	5,558	733	480	2,564	402	373	14,958
30	95,024	65,768	346	6,664	952	568	2,983	469	459	16,815
35	94,286	63,795	368	7,165	1,038	596	3,143	493	478	17,211
40	93,129	61,657	384	7,607	1,132	637	3,218	518	513	17,461
45	91,430	59,376	408	7,901	1,180	652	3,318	541	516	17,539
50	89,150	57,291	409	7,947	1,189	651	3,322	536	515	17,290
55	85,659	54,105	418	7,987	1,202	644	3,343	539	503	16,918
60	80,989	50,570	415	7,867	1,180	634	3,213	529	485	16,096
65	73,354	45,221	394	7,376	1,113	594	2,978	502	453	14,724
70	62,267	37,904	352	6,451	975	525	2,583	442	396	12,640
75	47,949	28,911	279	5,087	762	412	2,006	354	316	9,823
80	31,356	18,627	185	3,410	506	279	1,323	241	215	6,570
85	15,356	8,861	96	1,722	246	141	648	128	108	3,406

[a]Taken from Appendix C.

TABLE 13 Probability that an individual born in a given province will be living in the same or any other province at the age of 20.[a]

Province of birth	Probability of surviving to age 20 and living in province								
	Vienna	Lower Austria	Burgenland	Carinthia	Styria	Upper Austria	Salzburg	Tyrol	Vorarlberg
Vienna	0.844	0.079	0.006	0.004	0.009	0.010	0.006	0.005	0.002
Lower Austria	0.131	0.788	0.005	0.002	0.008	0.018	0.006	0.004	0.002
Burgenland	0.130	0.043	0.753	0.002	0.021	0.005	0.003	0.003	0.003
Carinthia	0.032	0.007	0.001	0.821	0.034	0.008	0.017	0.024	0.016
Styria	0.026	0.013	0.003	0.011	0.859	0.011	0.013	0.014	0.011
Upper Austria	0.022	0.012	0.001	0.002	0.009	0.882	0.025	0.009	0.002
Salzburg	0.024	0.008	0.000	0.008	0.017	0.036	0.844	0.024	0.004
Tyrol	0.013	0.004	0.000	0.008	0.091	0.009	0.013	0.898	0.013
Vorarlberg	0.014	0.004	0.001	0.009	0.014	0.005	0.006	0.035	0.877

[a]Taken from Appendix C.

TABLE 14 Probability that an individual born in a given region will live in the same or any other region at the age of 20.[a]

Region of birth	Probability of surviving to age 20 and living in region			
	East	South	Central	West
East	0.926	0.012	0.020	0.006
South	0.042	0.865	0.025	0.029
Central	0.034	0.014	0.900	0.015
West	0.018	0.020	0.018	0.911

[a]Taken from Appendix C.

TABLE 15 Proportion of the birth cohort in each province or region that is likely to be living in the native province or region at the ages of 20, 35, and 65. The percentage of a lifetime that might be expected to be spent in the area of birth is also given.[a]

Province or region of birth	Percentage of initial population surviving in area of birth at age			Percentage of life expectancy spent in area of birth
	20	35	65	
Vienna	84.4	74.7	53.4	80.9
Lower Austria	78.8	67.7	49.4	76.7
Burgenland	75.3	63.8	45.2	73.2
Carinthia	82.1	72.8	55.2	81.8
Styria	85.9	77.4	58.3	85.2
Upper Austria	88.2	81.2	62.1	88.1
Salzburg	84.4	74.4	55.4	81.9
Tyrol	89.8	81.4	63.1	88.1
Vorarlberg	87.7	79.0	61.1	86.4
East	92.6	87.7	67.6	93.9
South	86.5	78.8	60.1	86.8
Central	90.0	83.9	64.7	90.4
West	91.1	83.7	65.4	91.5

[a]Taken from Appendix C.

after the age of x (also known as the expectation of life at age x). Unlike conventional life tables, the multiregional life table also provides information on where these remaining years are most likely to be spent. Appendix C contains data showing the distribution of remaining lifetime at age x for individuals born in each of the nine provinces and in each of the four regions. The expectation of life at birth (or total life expectancy) provides an indication of the level of mortality experienced by people born in a given area, and the regional

distribution of this life expectancy can give some information about their mobility, though this must be interpreted with care.

Tables 16 and 17 give the expectation of life at birth and the number of years likely to be spent in each province (or region) for people born in the nine provinces and four regions, respectively. The total life expectancy does not seem to vary very greatly over the country, ranging from 70.2 years in the South to 71.5 years in the West, with the lowest provincial life expectancy found in Burgenland. Table 16 shows that a baby born in Burgenland may expect to live 69.9 years, of which an average of 51.2 (73%) will be spent in Burgenland, 10.3 (15%) in Vienna, and 8.4 (12%) in the rest of Austria. The most striking feature of Tables 16 and 17 is the very high proportion of lifetime to be spent in the province (or region) of birth (see also Table 15). This ranges from 73% in Burgenland to 88% in Tyrol and Upper Austria, and is even more pronounced at the regional level, rising to 87% in the South and 94% in the East. The quite marked sociocultural differences between the provinces may partly account for the tendency of the Austrians to spend a large proportion of their life in the area of their birth. Another factor may be the availability of sufficient jobs for the local population in each province so that they do not need to migrate to find work. Table 16 shows that natives of Vienna, Lower Austria, and Burgenland spend more years than any other group in a single province other than that of birth; in all cases, this province also lies in the East. For example, a baby born in Vienna is likely to spend 8.6 years of his life in Lower Austria, and a baby born in Burgenland will spend an average of more than 10.3 years in Vienna. This once again illustrates the socioeconomic unity of the three provinces in the East: people move from Vienna to the neighboring small villages in Lower Austria (which totally surrounds the capital) as part of the suburbanization process, while natives of Burgenland and Lower Austria tend to move to Vienna for better opportunities in employment or education. In all other cases an Austrian is likely to spend less than 4 years in any province other than that of birth; in most cases the figure is less than 2 years, or 3% of an average lifetime.

The expectation of life disaggregated by place of future residence may really only be regarded as a measure of the mobility of the population if the total life expectancy (at birth) is considered. It is of course possible to calculate the proportion of time that an x-year-old native of a given province is likely to spend inside and outside the province of birth; this has been done for people aged 20, 35, and 65, and the results are given in the left-hand section of Table 18. The proportion of time spent outside the province (or region) of birth actually increases with age in all cases; this can hardly be attributed to an increase in mobility in the older age groups! The point to consider here is that the distribution of life expectancies represents the total number of years spent in each province or region by the members of the birth cohort; this is then averaged to give the number of years spent in each province or region by an individual member of the cohort. For example, a group of 30 people might spend a total

TABLE 16 Expectation of life at birth, and number of years likely to be spent in each province in a lifetime, for people born in each of the nine Austrian provinces.[a]

Province of birth	Number of years spent in each province									Total life expectancy (years)[b]
	Vienna	Lower Austria	Burgenland	Carinthia	Styria	Upper Austria	Salzburg	Tyrol	Vorarlberg	
Vienna	57.2	8.6	0.7	0.5	1.0	1.3	0.8	0.6	0.2	70.7
Lower Austria	11.5	53.9	0.6	0.3	0.9	1.9	0.6	0.5	0.2	70.3
Burgenland	10.3	4.6	51.2	0.2	2.0	0.7	0.4	0.3	0.3	69.9
Carinthia	2.8	1.0	0.1	57.5	3.1	1.0	1.6	2.2	1.3	70.3
Styria	2.5	1.5	0.4	1.2	59.8	1.3	1.3	1.2	0.9	70.2
Upper Austria	2.1	1.5	0.1	0.3	0.9	62.2	2.3	0.9	0.2	70.6
Salzburg	2.4	1.1	0.1	0.9	1.7	3.9	58.2	2.3	0.4	71.1
Tyrol	1.5	0.7	0.1	1.0	1.0	1.3	1.5	63.1	1.4	71.6
Vorarlberg	1.4	0.6	0.1	1.2	1.8	0.8	0.8	3.0	61.7	71.4

[a]Taken from Appendix C.
[b]The total life expectancy may not exactly equal the sum of the number of years spent in each province due to independent rounding.

TABLE 17 Expectation of life at birth, and number of years likely to be spent in each region in a lifetime, for people born in each of the four aggregated regions of Austria.[a]

Region of birth	Number of years spent in each region				Total life expectancy (years)[b]
	East	South	Central	West	
East	66.2	1.4	2.2	0.7	70.5
South	4.2	60.9	2.6	2.5	70.2
Central	3.7	1.6	63.9	1.5	70.7
West	2.2	2.3	2.4	64.5	71.5

[a]Taken from Appendix C.
[b]The total life expectancy may not exactly equal the sum of the number of years spent in each region due to independent rounding.

TABLE 18 Proportion of remaining life expectancy at four ages likely to be spent outside the province or region of birth, compared with the proportion of the surviving birth cohort likely to be living outside their native area at the same ages.[a]

Province or region of birth	Proportion of remaining life expectancy to be spent outside area of birth at age				Proportion of surviving birth cohort living outside area of birth at age			
	0	20	35	65	0	20	35	65
Vienna	19.1	24.1	26.5	29.6	0.0	12.5	21.3	28.7
Lower Austria	23.4	29.9	32.0	34.5	0.0	18.2	28.2	33.5
Burgenland	26.8	34.3	36.8	39.8	0.0	21.8	32.3	38.3
Carinthia	18.3	23.6	24.3	26.9	0.0	14.5	22.4	26.2
Styria	14.7	19.0	20.6	22.5	0.0	10.7	17.8	21.6
Upper Austria	11.9	15.4	16.7	18.8	0.0	8.5	14.1	17.7
Salzburg	18.1	23.3	25.4	27.6	0.0	12.6	21.5	27.0
Tyrol	11.8	15.3	16.8	18.1	0.0	7.2	14.2	17.9
Vorarlberg	13.7	17.7	19.2	20.6	0.0	9.1	16.7	20.4
East	6.1	7.9	8.7	9.6	0.0	3.9	7.3	9.3
South	13.3	17.2	18.5	20.0	0.0	10.0	16.2	19.3
Central	9.6	12.4	13.5	15.1	0.0	6.6	11.3	14.3
West	9.8	12.7	13.9	14.9	0.0	5.8	11.8	14.9

[a]Taken from Appendix C.

of 30 years in a given region in the period under consideration; averaging would suggest that each person spends one year in the region. However, common sense would point to a different conclusion: one person moved to the region and stayed there for 30 years, while the other 29 members of the group did not

enter the region at all. These two suggestions lead to quite different pictures of migratory behavior, with a wide range of possibilities lying in between.

The data on the left-hand side of Table 18 become much more plausible if, instead of viewing them as the proportion of time that each individual will spend outside the region of birth, the figures are interpreted as the proportion of its *collective* lifetime that the *cohort* will spend outside its region of birth. For example, rather than assuming that *all* 65-year-old natives of Vienna will spend 29.6% of their remaining lifetime outside their province of birth, it could be assumed that 29.6% of surviving 65-year-old natives of Vienna will spend *all* of their remaining lifetime away from Vienna. The truth obviously lies somewhere between these two extremes.

The right-hand side of Table 18 gives the proportions of the birth cohort surviving to the ages of 20, 35, and 65 that live outside the province (region) of birth at these ages. It is very interesting to compare these figures with the data on the left-hand side of Table 18, i.e., with the proportions of life expectancy at these ages to be spent outside the province of birth. The provincial data for age 0 show absolutely no correlation because the proportion of the birth cohort living outside the province of birth is naturally zero in all cases, while the corresponding proportion of life expectancy varies between 12% and 23%. Thus the distribution of life expectancies at birth can provide some information about the propensity of the population to migrate from their native province, though with the reservations discussed above. However, the data for age 65 show a very good correlation: the proportion of the surviving birth cohort living outside the province of birth is in all cases between 94% and 99% of the corresponding proportion of life expectancy. This seems to imply that virtually all of the cohort life expectancy lived outside the province of birth at ages greater than 65 is due to people who were already living outside their province of birth at the age of 65 and who remain there until they die. Thus migration is almost insignificant at this age, despite the relatively high values given on the left-hand side of the table.

The data for the ages 20 and 35 show less correlation, as would be expected; the proportions of the surviving birth cohort living outside the province of birth lie in the ranges 47–63% and 80–92% of the corresponding proportion of life expectancy at the ages of 20 and 35, respectively. It is clear that people settled outside their province of birth at the age of 20 can account for a maximum of only 63% of the total time spent outside the province by the cohort after the age of 20 – the remainder must be made up by migration. Similarly, people settled outside their province of birth at the age of 35 can account for a maximum of up to 92% of the total time spent outside the province by the birth cohort after the age of 35; this shows that the effect of migration has already begun to diminish. It must be emphasized that these are very broad generalizations based upon the assumption that the Austrian population is not very mobile, and that people are not likely to migrate more than once. This assumption is examined in the next section.

3.1.3 SURVIVORSHIP PROPORTIONS

The survivorship proportion is another statistic that may be derived from the life table. It is defined as the proportion of the life-table population in a given age group and a particular region that will survive to be in the next age group and live in the same or another region five years later. The survivorship proportions for all age groups in each of the nine provinces and four regions are given in Appendix C.

Table 19 contains selected data from this Appendix; it shows the proportion of the (age-specific) life-table population that will survive and live in the same province or region five years later, for five age groups. This is essentially a measure of the mobility of the population: the higher the proportion that remains in the same province or region for five years, the less mobile is the population under consideration. Table 19 suggests that Austrians show remarkably little inclination to migrate, even during the traditionally mobile period between the ages of 15 and 30; the survivorship proportions for the groups aged 15–19 and 20–24 do not fall below 0.90 in any province, and are greater than 0.95 in each of the four regions. (The relatively low figures in the 65–69 age group are caused more by an increase in mortality than any upsurge in migration.) Although it is impossible to carry out a complete analysis here, it is interesting to briefly compare the survivorship proportions found in Austria with those calculated for other countries as part of the IIASA study. The urban

TABLE 19 Proportion of the (age-specific) life-table population in each province or region that will survive and live in the same province or region five years later, for five age groups.

Province or region of residence	Proportion surviving in same province or region five years later				
	0–4	15–19	20–24	35–39	65–69
Vienna	0.95	0.94	0.95	0.96	0.81
Lower Austria	0.96	0.90	0.93	0.96	0.81
Burgenland	0.96	0.90	0.93	0.96	0.80
Carinthia	0.97	0.92	0.95	0.98	0.82
Styria	0.97	0.94	0.96	0.98	0.81
Upper Austria	0.98	0.95	0.97	0.98	0.81
Salzburg	0.97	0.93	0.95	0.97	0.82
Tyrol	0.98	0.95	0.96	0.98	0.83
Vorarlberg	0.97	0.96	0.94	0.98	0.83
East	0.98	0.97	0.98	0.98	0.81
South	0.97	0.95	0.96	0.98	0.81
Central	0.98	0.96	0.97	0.98	0.81
West	0.98	0.96	0.97	0.98	0.83

state of Hamburg in the Federal Republic of Germany has approximately the same population as Vienna; the probability that people aged 20–24 living in this state will still be living there five years later is only 0.63, compared with a probability of 0.95 in the Austrian capital (Koch and Gatzweiler 1980). One of the aggregate regions used in the Netherlands study, South, has a population comparable to that of the East region in Austria; the probability that 20–24-year-olds will remain in the same region for five years is 0.87 for the former and 0.98 for the latter (Drewe 1980). This reinforces the earlier observation that the population of Austria is remarkable for the very low level of interregional migration.

3.2 Measures of Fertility and Migration

The multiregional life table may also be used to derive a number of measures summarizing the differences in fertility, mortality, and migration behavior of people born in different parts of Austria. The most important of these measures are the net reproduction rate (NRR) and the net migraproduction rate (NMR).

3.2.1 NET REPRODUCTION RATE

The net reproduction rate is simply the total number of children that a member of a life-table population may expect to have throughout his or her lifetime. This interpretation means that if the NRR is greater than 1, the population will grow; if the NRR is less than 1, the population will decline; if it is equal to 1, the population will remain the same size. The NRR can be calculated either for a single-region life table or a multiregional life table; the latter takes into account the fact that children are not always born in the same region as their parents.

The single-region NRR is calculated in two stages. First, the annual birth rates for each age group are multiplied by the number of years a member of the birth cohort is likely to live between the ages x and $x + 5$ (this will be less than 5 years due to the effects of mortality) to give the average number of offspring born to a member of the birth cohort in each age group. In the second stage, the averages for all age groups are added together to give the average number of offspring produced in a lifetime. The multiregional NRR is calculated in exactly the same way except that the number of years a member of the birth cohort may expect to live in each age group is further subdivided into the number of years that will be spent in each region of the multiregional system. For example, a member of the birth cohort born in the East may expect to live 4.77 years, on average, between the ages of 25 and 30; of these, 4.48 years will be spent in the East, 0.09 will be spent in the South, 0.15 in the Central region, and only 0.05 in the West. These regional averages are then multiplied by the (annual) age-specific regional birth rates to give the number of children expected to be born in each region to a member of the birth cohort in each age group. It is therefore possible to add together the age-specific figures for each region

to give the average number of children a member of the birth cohort might expect to have in each region over a lifetime. The total number of babies produced by a member of the birth cohort (NRR) is obtained by adding together the numbers born in each region. Thus the multiregional NRR is affected by regional differences in fertility (birth rates), mortality (average number of years lived between two ages), and migration (where these years are most likely to be spent); the single-region NRR does not include the effects of migration (to regions with different birth rates) on the reproductive capacity of the cohort.

Tables 20 and 21 give both the multiregional NRR, disaggregated by the region of birth of the child, and the single-region NRR for parents born in the nine provinces and four regions, respectively. Table 20 shows that in all of the provinces except Vienna the birth cohort has a net reproduction rate greater than 1, i.e., the population born in these provinces may be expected to grow through natural increase. Natives of Vorarlberg have the largest NRR (1.227) and, excluding Vienna, those of Lower Austria have the smallest (1.012); in all cases most of the children are born in the same province as their parents. The NRR of the Vienna cohort is only 0.849, which implies that the native population of Vienna is incapable of regenerating itself; if the city is to grow or even remain the same size it must rely on migration to swell the population. As noted above, a large proportion of babies are born in the same province as their parents: this figure ranges from 77% for parents born in Burgenland to 90% for parents native to Tyrol or Upper Austria. Once again the natural unity of the three provinces in the East is demonstrated by demographic data: over 11% of babies born to natives of Burgenland and over 12% of babies whose parents originated in Lower Austria are born in Vienna. Comparing the single-region and multiregional NRRs, it is clear that including the effects of migration causes the net reproduction rate to fall for cohorts born in all provinces except Vienna (i.e., the single-region NRR is greater than the multiregional NRR everywhere except Vienna). This may be explained by the fact that the birth rate is lower in Vienna than elsewhere; according to the model, migrants from other provinces arriving in Vienna will be subject to the rates current in Vienna and so will produce less offspring than if they had stayed in their province of birth. Conversely, the multiregional NRR is higher than the single-region NRR for natives of Vienna because migrants from Vienna benefit (in reproductive terms) from the higher birth rates prevailing in other parts of the country. Similar conclusions may be deduced for the regions from Table 21; again, the East is the only region with a net reproduction rate low enough to suggest that the native population is unable to regenerate itself through natural increase.

3.2.2 NET MIGRAPRODUCTION RATE

The net migraproduction rate (NMR) is exactly analogous to the net reproduction rate except that it considers numbers of migrations rather than numbers of births. It is calculated in the same way as the NRR (see previous section),

TABLE 20 Net reproduction rates (NRR) for people born in each of the nine provinces, disaggregated by the place of birth of the child.

Province of birth of parent	Average number of children born in each province to a member of a birth cohort (NRR)									Multi-regional NRR[a]	Single-region NRR
	Vienna	Lower Austria	Burgenland	Carinthia	Styria	Upper Austria	Salzburg	Tyrol	Vorarlberg		
Vienna	0.656	0.111	0.009	0.007	0.013	0.019	0.011	0.009	0.004	0.849	0.784
Lower Austria	0.126	0.813	0.008	0.004	0.012	0.029	0.009	0.008	0.003	1.012	1.052
Burgenland	0.118	0.062	0.816	0.003	0.029	0.009	0.005	0.005	0.005	1.054	1.104
Carinthia	0.031	0.012	0.002	0.939	0.047	0.015	0.025	0.037	0.024	1.132	1.153
Styria	0.027	0.019	0.005	0.019	0.928	0.020	0.020	0.022	0.017	1.076	1.080
Upper Austria	0.022	0.019	0.001	0.004	0.013	1.009	0.036	0.015	0.004	1.123	1.138
Salzburg	0.025	0.013	0.001	0.014	0.025	0.059	0.926	0.038	0.007	1.108	1.117
Tyrol	0.014	0.008	0.001	0.015	0.015	0.018	0.021	1.044	0.023	1.161	1.176
Vorarlberg	0.015	0.007	0.002	0.018	0.025	0.011	0.011	0.052	1.087	1.227	1.254

[a]The total multiregional NRR may not exactly equal the sum of the number of children born in each province due to independent rounding.

TABLE 21 Net reproduction rates (NRR) for people born in each of the four regions, disaggregated by the place of birth of the child.

Region of birth of parent	Average number of children born in each region to a member of a birth cohort (NRR)				Total NRR[a]	Single-region NRR
	East	South	Central	West		
East	0.870	0.020	0.033	0.012	0.934	0.920
South	0.051	0.957	0.041	0.046	1.095	1.101
Central	0.043	0.022	1.030	0.025	1.121	1.132
West	0.025	0.034	0.034	1.091	1.185	1.203

[a]The total NRR may not exactly equal the sum of the number of children born in each region due to independent rounding.

using age- and region-specific out-migration rates instead of birth rates. The total net migraproduction rate can therefore be defined (Willekens and Rogers 1978) as the average number of migrations that an individual born in a given region may expect to make during a lifetime; as with the NRR, this total can be subdivided to give the number of events (in this case migrations) that take place in (or from) each region. The NMR therefore reflects regional differences in mortality and migration; regional differences in fertility have no effect on the NMR.

Tables 22 and 23 give the multiregional NMR, disaggregated by the region from which the migration takes place, for the nine provinces and four regions, respectively. The most striking feature of these tables is the remarkably low value of the total NMR in all areas of the country. The average number of interprovincial migrations ranges from 0.211 for natives of Tyrol to 0.454 for people born in Burgenland; these figures should be compared with NMRs ranging from 2.36 to 3.31 for cohorts born in the various states making up the Federal Republic of Germany (Koch and Gatzweiler 1980). Table 22 suggests that 100 people born at the same time in Vienna are only likely to make a total of 38 interprovincial migrations between them; of these, 32 (or 84%) will be migrations away from Vienna. In all cases the great majority of interprovincial migrations (81–87%) take place from the province of birth. Individuals born in the three eastern provinces are more likely to migrate between provinces than any other group (though most of these migrations are within the East region); individuals born in Tyrol and Vorarlberg in the West and Upper Austria in the South are least likely to migrate. Table 23 shows that natives of the South are more likely to migrate between regions than people born in any other part of Austria, and yet even in this case only one Southerner in five is affected.

3.3 Multiregional Population Projection

This section examines the long-term influence of constant regional patterns of fertility, mortality, and migration on the regional distribution and age structure

TABLE 22 Net migraproduction rates (NMR) for people born in each of the nine provinces, disaggregated by the province from which the migration takes place.

Province of birth	Average number of migrations out of each province by a member of a birth cohort									Total NMR[a]
	Vienna	Lower Austria	Burgenland	Carinthia	Styria	Upper Austria	Salzburg	Tyrol	Vorarlberg	
Vienna	0.322	0.044	0.003	0.001	0.002	0.003	0.003	0.001	0.001	0.380
Lower Austria	0.055	0.365	0.003	0.001	0.002	0.004	0.002	0.001	0.001	0.434
Burgenland	0.050	0.024	0.371	0.001	0.005	0.001	0.001	0.001	0.001	0.454
Carinthia	0.013	0.004	0.001	0.259	0.008	0.002	0.006	0.005	0.004	0.303
Styria	0.012	0.007	0.002	0.004	0.213	0.003	0.005	0.003	0.003	0.252
Upper Austria	0.010	0.007	0.000	0.001	0.002	0.181	0.009	0.002	0.001	0.213
Salzburg	0.011	0.055	0.000	0.003	0.004	0.009	0.274	0.006	0.001	0.314
Tyrol	0.007	0.003	0.000	0.003	0.003	0.003	0.005	0.184	0.004	0.211
Vorarlberg	0.006	0.003	0.001	0.004	0.004	0.002	0.003	0.008	0.206	0.236

[a]The total NMR may not exactly equal the sum of the NMRs out of each province due to independent rounding.

TABLE 23 Net migraproduction rates (NMR) for people born in each of the four regions, disaggregated by the region from which the migration takes place.

Region of birth	Average number of migrations out of each region by a member of a birth cohort				Total NMR[a]
	East	South	Central	West	
East	0.095	0.003	0.004	0.001	0.103
South	0.005	0.192	0.005	0.005	0.207
Central	0.004	0.003	0.147	0.003	0.158
West	0.002	0.005	0.004	0.153	0.165

[a]The total NMR may not exactly equal the sum of the NMRs out of each region due to independent rounding.

of the Austrian population. It is assumed that all demographic rates remain at their 1971 levels; the 1971 population is then projected into the future by using the age-specific mortality and migration rates to calculate the number of survivors at each age in each region, and adding to this total the number of surviving newborn babies suggested by the regional fertility rates (Rogers 1975, Chap. 5).

The results of this projection for the nine provinces and four regions are given for selected years in Appendix D. It must be emphasized that a projection is not a prediction: a projection merely describes what *would* happen under certain specified conditions – it does not say that this is the *most likely* outcome. The results obtained from the projection must therefore not be interpreted as forecasts of the future, but rather as indications of the way in which the population would develop if current demographic behavior was not altered either by natural forces or through human intervention (e.g., population policies).

It can be shown mathematically that the population of a system of regions, closed to external migration and with unchanging patterns of fertility, mortality, and migration, will eventually achieve a stable regional distribution which then remains constant over time. Two of the most important features of the stable population are that the rate of population growth in each region is the same, and that the age structure of each region remains unchanged by the passage of time. Thus, in the long term, the original age composition of the population is "forgotten" in that its influence on the future age composition disappears completely; the stable distribution of ages depends only on the age-specific rates of fertility, mortality, and migration. However, if the original age structure is very different from the stable structure it may take a very long time to reach stable growth.

Figure 9 shows the evolution of the regional populations as a percentage of the total population over the period covered by the projection to stability. Although it is clear that a stable population is not likely to be actually observed in Austria, it is nevertheless interesting to follow the development of the regional populations as they approach stability and to analyze the

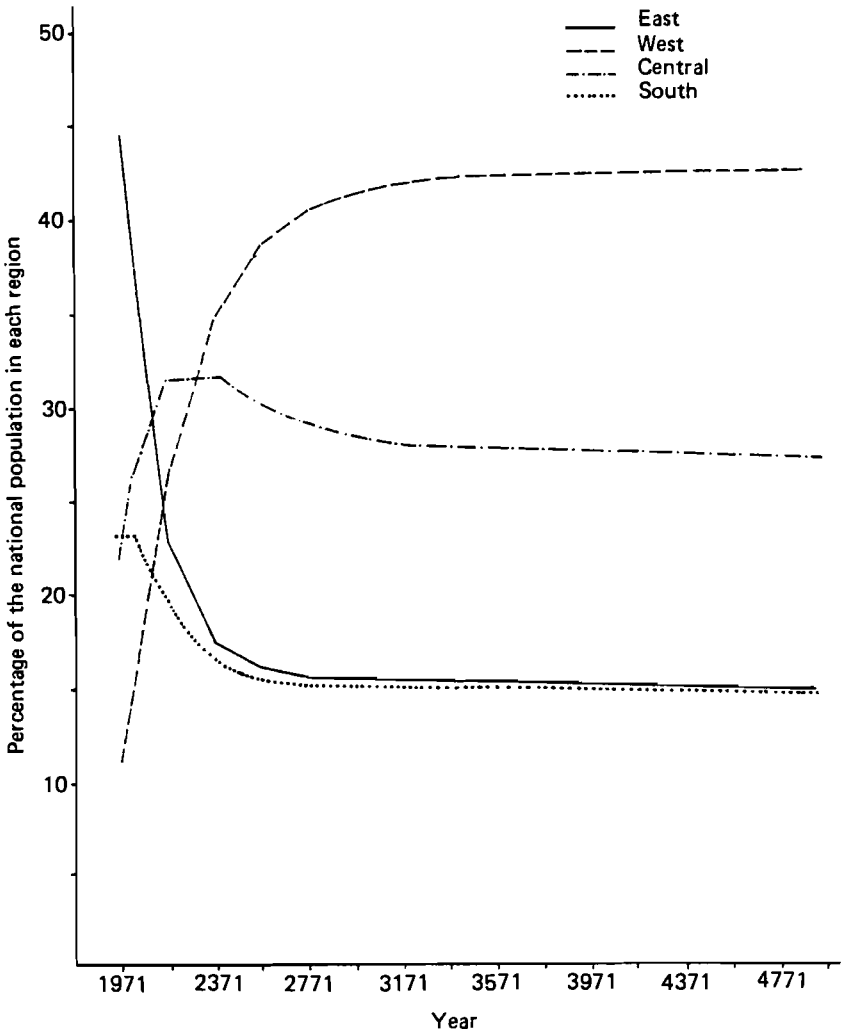

FIGURE 9 Evolution of the regional populations as a percentage of the total population over the period covered by the projection to stability.

characteristics of the stable population. Figure 9 shows that the stable distribution of the population among the regions is quite different from the original (1971) distribution; the proportion living in the East drops dramatically, from 44% in 1971 to 15% at stability, while the proportion living in the West increases from 11% to 42%. The percentage of the total population resident in the Central region rises from 22% in 1971 to about 32% in 2271, and then falls to a stable share of 28%. The South maintains a steady 23% of the total population for about 50 years; its share then decreases slowly to 15% of the stable population.

The dramatic fall in the share of the East during the early stages of the projection may be attributed in part to the large number of elderly people in the region in 1971, but as the projection continues the initial age structure is forgotten and the general decline must be caused by regional differences in demographic rates – in particular the low level of fertility in the East. Similarly, the spectacular growth in the population share of the West is mainly due to local high rates of fertility and low rates of mortality. The populations of the South and Central regions had almost identical age structures in 1971, but Figure 9 shows that this has little effect on subsequent developments; the differences may be attributed largely to the high rate of migration away from the South, and the slightly higher level of fertility in the Central region. The projection of the population of the nine provinces suggests that the proportion of the total population living in Vienna will fall from 22% in 1971 to only 7% at stability: this is once again due to the low fertility rates in the capital.

It is perhaps more realistic to turn from this long-term picture of population growth to focus on the developments in the relatively short period between 1971 and 2026. Figure 10 illustrates the population redistribution taking place over this period, while Tables 24 and 25 compare certain important characteristics of the population in 1971, 1991, 2021, and at stability, for the nine-province and four-region systems, respectively. The trends in redistribution generally resemble those already discussed: the proportion of people living in the East falls rapidly (from 44% in 1971 to 36% in 2021); the proportion living in the West increases more slowly (from 11% in 1971 to 15% in 2021); the proportion living in the Central region also increases (from 22% to 26% over the same 50-year period), and the proportion living in the South remains approximately constant. The mean age of each regional population also changes over time; the average age of Easterners drops from 39.0 to 38.7 between 1971 and 2021, while the population of the West grows "older" over the same period, the mean age increasing from 32.1 to 34.0. Note that the difference between the mean ages of the regional populations decreases with time: in 1971, the highest mean age (in the East) was nearly 7 years greater than the lowest mean age (in the West), while by 2021 the difference is only 4.7 years, falling to less than 3 years at stability. Similar trends may be seen in the mean ages of the populations of the provinces (Table 24).

The changes in the age structure of the regional populations can also be analyzed by considering the relative size of the young (less than 20) and elderly (older than 64) sections of the population in each region in 1971 and 2021. The proportion of the Eastern population younger than 20 remains virtually constant (26%) between 1971 and 2021; in all other regions the proportion of young people falls to values ranging between 30% and 33% of the regional population over the same period. Elderly people comprised over 17% of the population of the East in 1971 and less than 15% in 2021; the proportion older than 64 remains almost unchanged (10–12%) over this period in the other three regions. Thus the population of the East grows steadily "younger" in the first

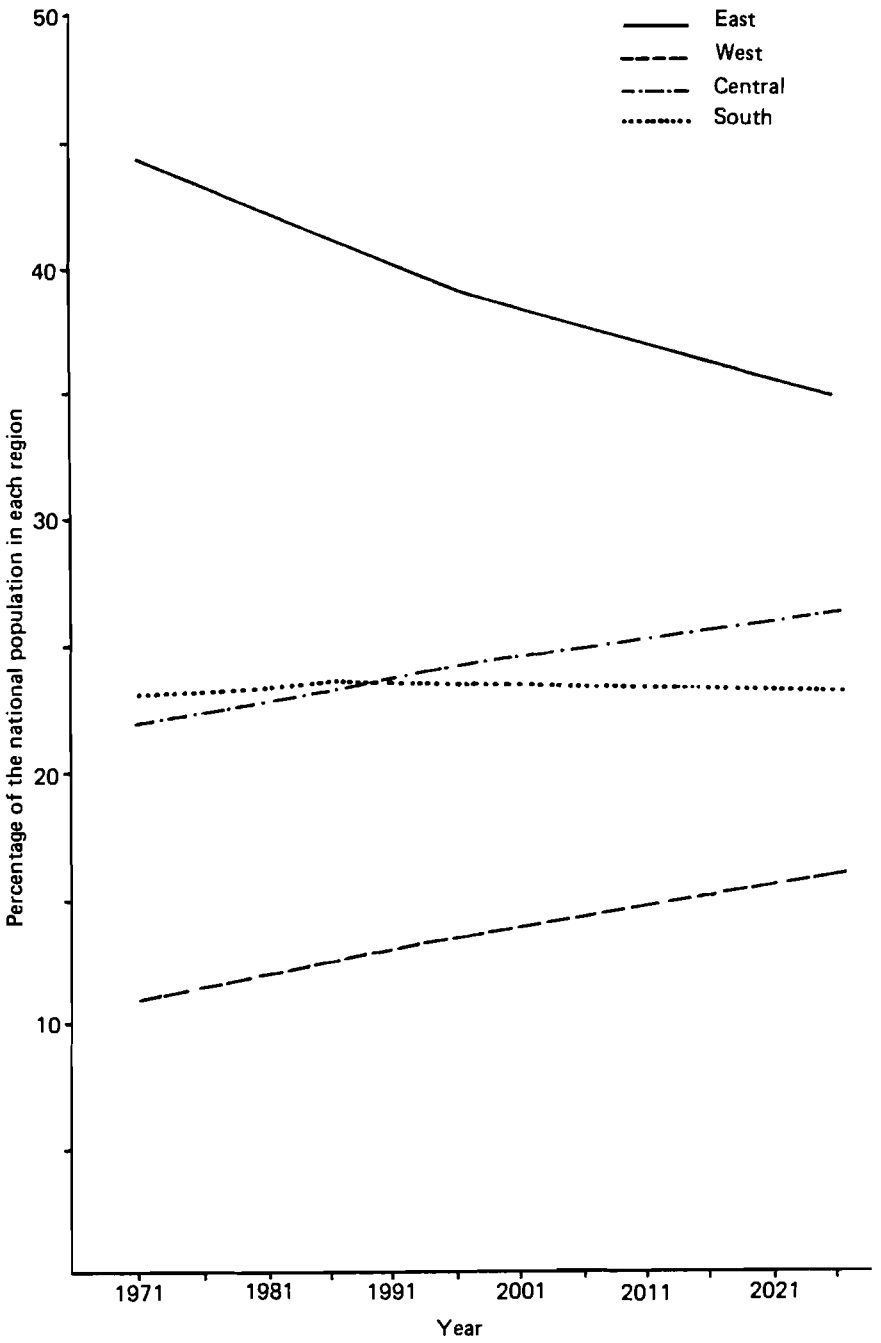

FIGURE 10 Evolution of the regional populations as a percentage of the total population between 1971 and 2026.

TABLE 24 Projection of the Austrian population, disaggregated by province, to stability. The evolution of the population is described in terms of the variation of certain important characteristics with time.[a]

Characteristic	Province									Austria[b]
	Vienna	Lower Austria	Burgenland	Carinthia	Styria	Upper Austria	Salzburg	Tyrol	Vorarlberg	
Size of population										
1971	1,614,841	1,414,161	272,119	525,728	1,192,100	1,223,444	401,766	540,771	271,473	7,456,403
1991	1,469,145	1,405,664	266,807	572,684	1,251,145	1,363,904	484,642	657,022	342,426	7,813,438
2021	1,412,528	1,417,869	255,889	638,030	1,346,514	1,601,553	619,671	859,253	462,938	8,614,245
Stable	—	—	—	—	—	—	—	—	—	—
Population distribution (%)										
1971	21.66	18.97	3.65	7.05	15.99	16.41	5.39	7.25	3.64	100
1991	18.80	17.99	3.41	7.33	16.01	17.46	6.20	8.41	4.38	100
2021	16.40	16.46	2.97	7.41	15.63	18.59	7.19	9.97	5.37	100
Stable	7.40	5.85	0.77	6.37	9.56	14.76	8.99	24.77	21.54	100
Growth rate										
1971–1976	−0.0049	−0.0010	−0.0015	0.0036	0.0018	0.0045	0.0093	0.0094	0.0116	0.0016
1991–1996	−0.0028	0.0004	−0.0014	0.0040	0.0026	0.0058	0.0090	0.0098	0.0112	0.0031
2021–2026	−0.0006	−0.0002	−0.0016	0.0030	0.0019	0.0046	0.0069	0.0078	0.0087	0.0030
Stable	0.0045	0.0045	0.0045	0.0045	0.0045	0.0045	0.0045	0.0045	0.0045	0.0045
Mean age										
1971	41.83	36.46	35.46	33.63	34.85	33.88	33.45	32.48	31.33	36 07
1991	40.28	36.29	35.80	34.31	35.04	33.96	33.72	32.94	32.08	35.65
2021	39.91	37.35	36.78	35.61	36.18	35.14	34.96	34.30	33.45	36.34
Stable	38.80	36.84	36.04	35.48	35.81	35.37	35.65	35.08	34.43	35.52
Percentage younger than 20										
1971	20.48	31.93	33.52	36.23	33.64	35.28	34.38	36.35	37.82	31.30
1991	22.42	29.45	30.76	32.38	30.83	32.24	32.15	33.41	35.16	29.85
2021	22.81	28.51	29.57	31.10	29.79	31.24	31.18	32.42	34.12	29.39
Stable	23.52	28.93	30.12	31.27	30.11	31.11	30.72	31.97	33.42	31.01
Percentage older than 64										
1971	20.03	15.18	13.23	11.44	12.78	11.99	11.15	10.64	9.55	14.24
1991	17.40	13.62	13.30	12.00	12.45	11.19	10.75	10.07	8.96	12.91
2021	15.53	13.74	13.46	12.23	12.42	11.27	11.19	10.74	10.30	12.58
Stable	14.36	13.65	12.77	12.62	12.55	12.25	12.70	12.46	12.07	12.60

[a]Taken from Appendix D.

[b]The values for Austria may not exactly equal the sum of the data for the provinces (in the cases where this should apply) due to independent rounding.

TABLE 25 Projection of the Austrian population, disaggregated by region, to stability. The evolution of the population is described in terms of the variation of certain important characteristics with time.[a]

Characteristic	Region				Austria[b]
	East	South	Central	West	
Size of population					
1971	3,301,121	1,717,828	1,625,210	812,244	7,456,403
1991	3,131,048	1,822,830	1,849,196	999,436	7,802,511
2021	3,051,180	1,979,812	2,224,136	1,320,174	8,575,301
Stable	—	—	—	—	—
Population distribution (%)					
1971	44.27	23.04	21.80	10.89	100
1991	40.13	23.36	23.70	12.81	100
2021	35.58	23.09	25.94	15.40	100
Stable	15.10	14.91	27.54	42.44	100
Growth rate					
1971–1976	−0.0030	0.0024	0.0057	0.0101	0.0016
1991–1996	−0.0014	0.0030	0.0067	0.0103	0.0031
2021–2026	−0.0009	0.0022	0.0053	0.0080	0.0028
Stable	0.0043	0.0043	0.0043	0.0043	0.0043
Mean age					
1971	39.01	34.48	33.78	32.10	36.07
1991	38.22	34.82	33.89	32.64	35.68
2021	38.70	36.03	35.07	34.02	36.42
Stable	37.76	35.79	35.44	34.92	35.62
Percentage younger than 20					
1971	26.46	34.43	35.06	36.84	31.30
1991	26.03	31.29	32.22	34.00	29.75
2021	25.64	30.16	31.25	32.99	29.27
Stable	26.37	30.39	31.04	32.42	30.82
Percentage older than 64					
1971	17.39	12.37	11.78	10.28	14.24
1991	15.42	12.31	11.09	9.69	12.93
2021	14.72	12.38	11.22	10.59	12.64
Stable	13.97	12.67	12.38	12.40	12.67

[a]Taken from Appendix D.

[b]The values for Austria may not exactly equal the sum of the data for the regions (in the cases where this should apply) due to independent rounding.

fifty years of the projection, while the populations of the other regions grow correspondingly "older". Nevertheless, the Eastern population still remains the "oldest" of any region in 2021.

It is interesting to compare the results of this IIASA projection with the results obtained from the OIR multiregional projection model developed at the Austrian Institute for Regional Planning (Sauberer 1976, p. 16, Model C, and Fischer and Sauberer 1979). The OIR model differs from the IIASA model in several ways: it treats considerably more regions (95 as compared with 4 or 9); it disaggregates the population by sex; and it uses fertility rates for the period 1971–1973 modified to take into account the reduction in fertility between 1973 and 1976 (the IIASA model assumes that fertility remains constant at the 1971 level). Table 26 compares the results obtained from the two models for the year 1991. The 1991 population figure calculated by the OIR model is about 475,000 less than that given by the IIASA model; this difference means that the IIASA model suggests an *increase* in the population of Austria between 1971 and 1991, while the OIR model would predict a *decrease* in population over the same period. This discrepancy is mainly caused by the reduction in fertility rates in Austria since 1971: the IIASA model does not take this into account. Table 26 also shows that the models project very similar regional population distributions for the year 1991.

The multiregional population projection model may be used to calculate another important set of data: the *stable equivalent* to the observed population. This is the population which has the same age distribution and rate of growth as the stable population, and which would eventually produce the same stable population as the observed population under projection. The most interesting

TABLE 26 Population size and regional distribution suggested by the IIASA model and the OIR model for 1991, compared with the population size and distribution observed in 1971.

Characteristic	Region				
	East	South	Central	West	Austria[a]
Population size					
1971, observed	3,301,121	1,717,828	1,625,210	812,244	7,456,403
1991, IIASA model	3,131,048	1,822,830	1,849,196	999,436	7,802,511
1991, OIR model	2,974,630	1,692,349	1,722,438	937,218	7,326,725
Regional distribution (%)					
1971, observed	44.27	23.04	21.80	10.89	100
1991, IIASA model	40.13	23.36	23.70	12.81	100
1991, OIR model	40.60	23.10	23.51	12.79	100

[a]The figures for Austria may not exactly equal the sum of the data for the regions due to independent rounding.

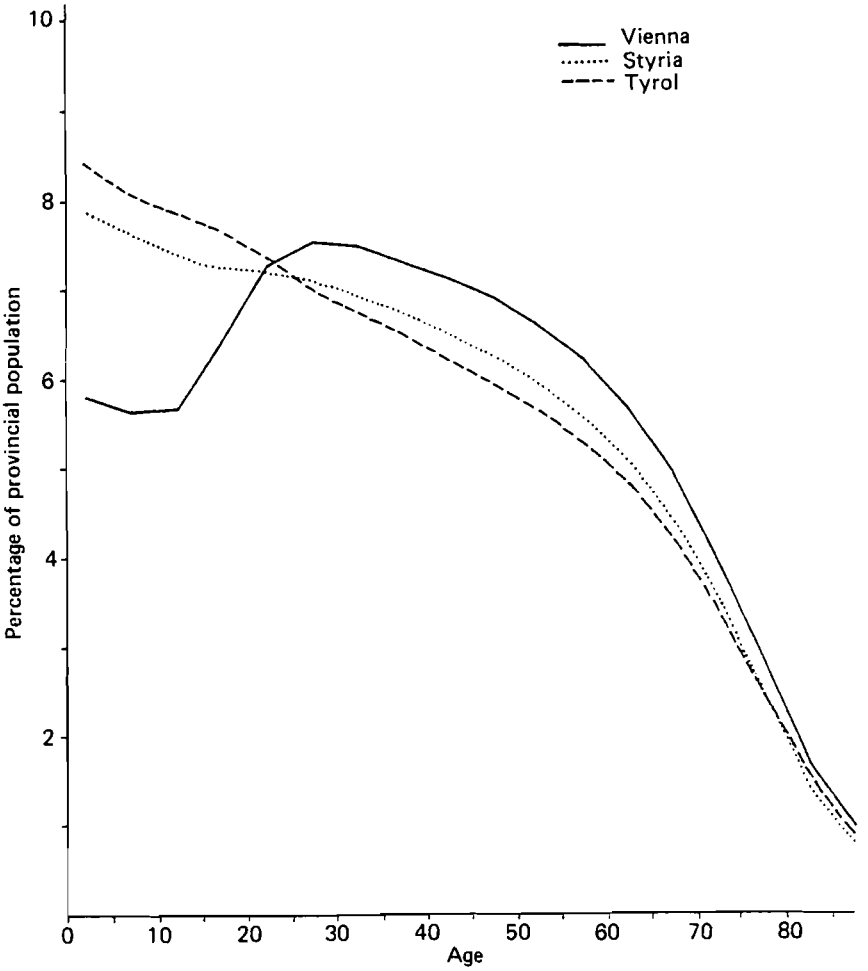

FIGURE 11 Age structure of the stable population in Vienna, Styria, and Tyrol.

feature of the stable population when compared to the observed population is that the effect of the age structure on population growth is eliminated. The age profile of the stable population is illustrated in Figures 11 and 12 for three provinces (Vienna, Styria, and Tyrol) and three regions (East, South, and West). These figures should be compared with the corresponding *observed* age profiles given in Figures 4 and 5. It is clear that the stable age-composition curves are much smoother than the observed curves in all cases, though this is particularly marked for Vienna and the East region. The stable age profiles of the South, West, and Central regions are quite similar in shape, while the East has a much smaller proportion of its population in the younger age groups, and a local maximum in the distribution around the age of 30. Appendix D gives full details of the stable equivalent to the original population in each province and region.

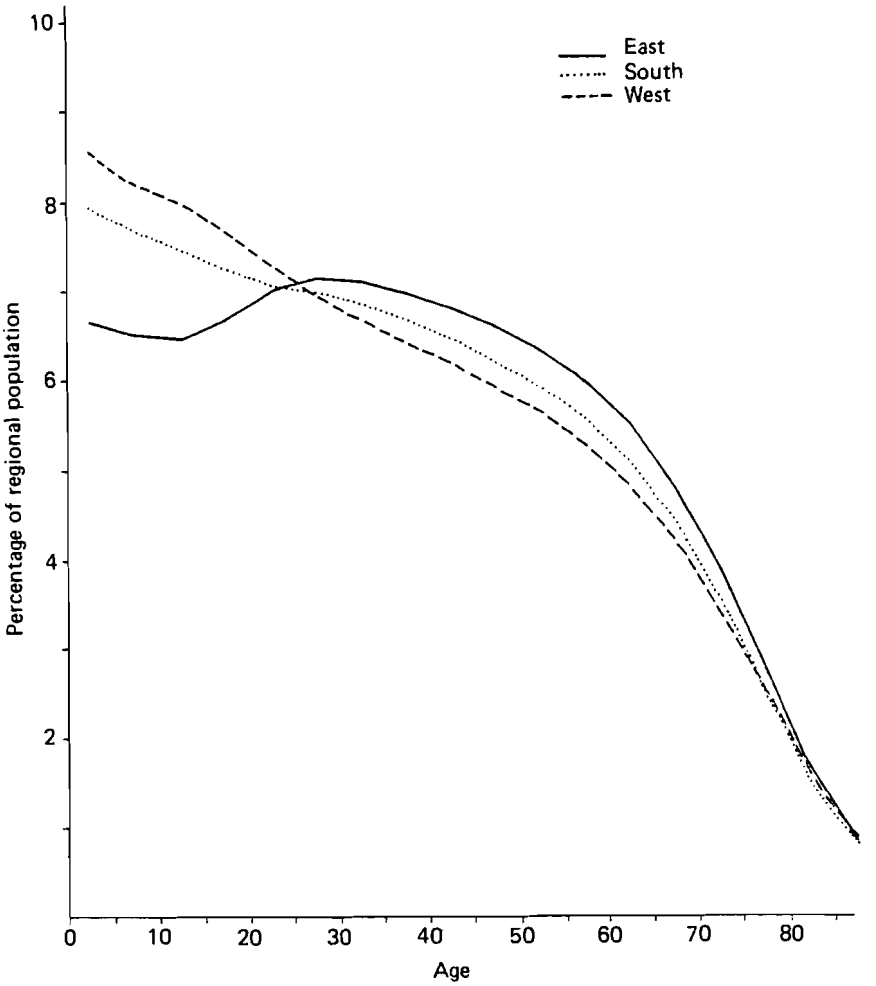

FIGURE 12 Age structure of the stable population in the East, South, and West regions.

4 POPULATION DISTRIBUTION POLICY

When considering national policy and planning it is important to remember that Austria is very much a federal country, composed of nine provinces which seek to maintain as much of their independent character as possible within the limits of the federal system. Each province is administered by its own government, headed by a governor elected by the provincial parliament; the provincial government is responsible for legislation on matters such as social welfare, nature conservation, pollution control, building regulations, local population policy, and regional planning within the province. The federal government, on the other hand, deals with matters affecting the whole country; the construction of roads and railways, the siting of industrial plants, and so on. However, it is clear that

each level of government can directly influence areas nominally under the jurisdiction of the other; a federal decision to build new major roads may have a profound effect on regional planning policy in the provinces. It is interesting to note that, in the provinces, federal affairs are conducted by the governor, i.e., by a provincial authority. Each province also has the right to protest if it believes that any federal legislation encroaches on its authority. Thus policy making is much less centralized in Austria than in many other countries – this has certain advantages, but also a number of disadvantages.

Since 1971, the Österreichische Raumordnungskonferenz (OROK), or Austrian Regional Planning Commission, has acted as a link between federal and provincial governments in the field of regional planning. This organization is also responsible for preparing a regional development plan for the country as a whole. This is a difficult task because in Austria there is no explicit migration policy; the population redistributions implied by other policies are sometimes mutually contradictory. For example, it has long been thought that the rate of migration from rural areas should be reduced, but the main consequence, a drop in population growth in the urban centers, has not been considered. The three provinces in eastern Austria illustrate this situation very well. Vienna has a relatively "old" age structure (28% of the population are older than 60) and a low fertility rate, and will need to gain at least 10,000 people through migration every year just to maintain the population at its present level. However, most of the potential in-migrants come from those rural areas in Burgenland and Lower Austria now designated as regions from which migration should be reduced!

In another case it was decided to try and stop out-migration and reduce commuting in certain areas; these aims proved incompatible because it turned out that the population of certain structurally underdeveloped areas can only be maintained by providing good transport facilities to places of work outside the region. In other words, trying to reduce commuting would cause out-migration to increase.

The OROK has not formulated any specific policy concerning migration, but it is possible to deduce certain features of the implied population redistribution from some of its stated aims:

> The settlement system should be developed in a way that guarantees an even population distribution, so that population density corresponds to the economic and ecological capacity of an area . . .

While working out a regional development plan for Austria, the federal government made a number of suggestions concerning the future regional distribution of the population in general; these are currently under discussion. The federal proposals are based on the results of the multiregional population projection model used at the Austrian Institute for Regional Planning (Sauberer 1976). One of the main recommendations is that migration from isolated rural areas (not within commuting distance of any major town) should be reduced.

It is difficult to come to any conclusions about the direction of population distribution policy in Austria since neither the main aims of any such policy nor the best methods of implementing it have yet been completely established. Such measures as already exist may be divided into two categories: those which are designed to affect the population directly, and those for which any influence on the population is purely incidental.

The only province to pursue any direct population policy is Vienna, which has established a fund (Zuwandererfonds) to support migrants arriving in the city. Originally this fund was used to encourage migration from abroad, but it is now employed mainly to stimulate migration from other parts of Austria. This is largely a function of the changing economic situation; the fund is used to construct housing for migrants moving to Vienna in search of employment. The demographic situation and the large number of employers based in the capital means that there is still a demand for labor in the Vienna region.

There are many policies which are not generally considered as population distribution measures but which nevertheless have a powerful and indirect influence in this field. In most cases the influence is so well concealed that it would be more accurate to describe them as "hidden" population distribution policies. Two of these are of particular importance: the support given to the development of popular tourist regions, and the attempt to bring new jobs to the smaller towns and villages. The main effect of the first of these policies has been to raise the income of the population living in these largely rural and agricultural areas, which has reduced out-migration. However, this policy is only successful in regions which are popular tourist resorts in both summer and winter. The second policy uses employment as a means of attracting people to the smaller centers; improvements in the technical, cultural, and social services available in these towns make them more attractive not only as places to live, but also as places to work. This strategy has been less successful since 1975 due to recent changes in the economic climate of the country. It should also be noted that the federal government has been trying to establish new jobs in some of the regions with industrial problems, for example in the mining and steel-producing areas of Styria.

To summarize, there is no long-term plan guiding the movement and growth of the population within Austria. Various other seemingly unrelated policies influence migratory behavior indirectly, in ways which are difficult to quantify and in directions which are often mutually opposed, but it seems that any attempt to introduce more direct control would necessarily be limited by the low level of migration of the Austrian people and by the federal constitution of the country.

5 CONCLUSION

This report uses the techniques of multiregional demography to analyze a set of data describing the demographic behavior of the Austrian population. The

multiregional approach makes it possible to examine the effects of interregional migration and regional differences in fertility and mortality on the growth and distribution of the population.

The most striking demographic difference between the provinces may be seen in the relative fertility of their populations: the gross reproduction rate in Vorarlberg is 60% higher than the corresponding figure in Vienna. This difference in fertility is even more marked in the crude birth rate: in a given period, almost twice as many babies are born per capita in Vorarlberg as in Vienna. The crude birth rate reflects the different age structures in the East and West of the country, the East having a high proportion of elderly people (17% aged 65 or older) while the West has a much "younger" population (37% aged 19 or younger). Interprovincial migration is remarkably low except between the economically linked provinces of Burgenland, Lower Austria, and Vienna, which together comprise the aggregated East region. People born in all provinces except Burgenland may expect, on average, to spend more than three-quarters of their lifetime in their province of birth.

The multiregional approach is used to generate a life table from the original data; life-table statistics such as the expectation of life and the survivorship proportions illustrate different aspects of demographic behavior in the nine provinces and four regions considered. This behavior is summarized in two new measures which can be obtained from the multiregional life table: the net reproduction rate (NRR) and the net migraproduction rate (NMR). These show once again that fertility is much higher in the West than in the East, and that the general level of interregional migration is very low. (Excluding interprovincial migration, the most mobile population is that born in the South, and even in this case only one person in five is likely to migrate in the course of a lifetime.)

The 1971 population is then projected into the future, assuming that age-specific regional rates of fertility, mortality, and migration remain constant. It is shown that the population eventually attains a stable distribution and age structure that is quite different from the original situation. For example, the proportion of the total population living in the East falls from 44% in 1971 to only 15% at stability; in a stable situation Vienna would contain only 7% of the population, as compared with 22% in 1971. The proportion living in the West grows dramatically, from 11% of the observed population in 1971 to over 42% of the stable population. These projections depend solely on the age-specific rates, and the dramatic redistribution of population from East to West is caused largely by the difference in regional fertility levels.

Although it is quite clear that the stable population will never actually be achieved, it indicates the direction which would be taken if population growth were allowed to take its own course, unaffected by natural changes and free from human intervention. If this is not the course favored by national or regional planners, it seems that measures should be taken either to change the direction of population development, or at least to monitor the natural variations in regional demographic rates as they occur. It is hoped that this report will be of

some use in determining the best way of treating the complex dynamic phenomena of population distribution and growth in Austria, and will stimulate further work in this field.

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APPENDIXES

Appendix A

OBSERVED POPULATION, NUMBER OF BIRTHS, DEATHS, AND MIGRANTS, DISAGGREGATED BY AGE AND GEOGRAPHIC AREA, FOR THE NINE PROVINCES AND FOUR REGIONS (1971)

APPENDIX A

Observed population characteristics in the nine provinces.

region burgenl.

age	population	births	deaths	migration from burgenl. to burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	20695.	0.	544.	0.	5.	185.	14.	8.	81.	3.	9.	290.
5	23769.	0.	50.	0.	4.	147.	14.	5.	54.	4.	5.	233.
10	24543.	0.	36.	0.	15.	388.	29.	20.	179.	27.	21.	1134.
15	22203.	736.	164.	0.	17.	435.	53.	29.	250.	31.	37.	1915.
20	19060.	1612.	125.	0.	7.	292.	19.	26.	133.	11.	17.	655.
25	12276.	721.	105.	0.	8.	186.	21.	8.	82.	6.	14.	420.
30	17110.	583.	141.	0.	2.	113.	13.	3.	50.	3.	5.	199.
35	16572.	272.	217.	0.	1.	91.	16.	7.	31.	3.	9.	199.
40	18252.	75.	359.	0.	5.	78.	8.	2.	46.	5.	2.	191.
45	19178.	3.	502.	0.	1.	50.	4.	1.	26.	0.	3.	103.
50	11789.	0.	488.	0.	2.	47.	4.	1.	30.	2.	1.	104.
55	14809.	0.	847.	0.	1.	56.	3.	3.	13.	2.	1.	81.
60	15861.	0.	1624.	0.	2.	51.	4.	2.	16.	3.	2.	72.
65	13617.	0.	2281.	0.	2.	41.	3.	1.	13.	1.	1.	58.
70	10969.	0.	2883.	0.	1.	24.	2.	0.	8.	1.	1.	35.
75	6589.	0.	2817.	0.	0.	12.	1.	0.	4.	0.	0.	18.
80	3235.	0.	2289.	0.	0.	4.	0.	0.	1.	0.	0.	5.
85	1592.	0.	1983.	0.	0.	2.	0.	0.	1.	0.	0.	3.
total	272119.	4002.	17455.	0.	73.	2202.	208.	116.	1018.	102.	128.	5715.

region carinth.

age	population	births	deaths	migration from carinth. to burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	46229.	0.	1438.	16.	0.	53.	83.	91.	209.	113.	94.	99.
5	50407.	0.	120.	15.	0.	45.	49.	44.	135.	82.	53.	69.
10	49830.	10.	107.	9.	0.	89.	81.	293.	309.	388.	197.	240.
15	44007.	1020.	256.	17.	0.	151.	168.	458.	1172.	662.	483.	1216.
20	36774.	3071.	254.	14.	0.	125.	157.	264.	454.	276.	165.	484.
25	30701.	1953.	215.	7.	0.	68.	91.	144.	254.	163.	78.	210.
30	33764.	1427.	289.	4.	0.	29.	44.	61.	122.	78.	40.	60.
35	28102.	616.	318.	4.	0.	22.	41.	49.	91.	81.	30.	52.
40	33037.	253.	551.	5.	0.	34.	23.	43.	81.	50.	26.	49.
45	33681.	24.	783.	3.	0.	16.	11.	27.	67.	35.	13.	40.
50	23419.	0.	834.	0.	0.	12.	14.	26.	77.	34.	13.	45.
55	27544.	0.	1469.	1.	0.	20.	12.	20.	57.	32.	11.	36.
60	28090.	0.	2451.	2.	0.	20.	15.	19.	65.	24.	9.	36.
65	23640.	0.	3476.	0.	0.	15.	10.	14.	48.	17.	7.	27.
70	17287.	0.	4814.	0.	0.	9.	6.	9.	29.	11.	4.	17.
75	10492.	0.	4370.	0.	0.	6.	4.	5.	17.	6.	3.	9.
80	5829.	0.	3730.	0.	0.	2.	1.	2.	5.	2.	1.	3.
85	2895.	0.	3306.	0.	0.	1.	1.	1.	3.	1.	1.	1.
total	525728.	8374.	28381.	97.	0.	721.	811.	1570.	3195.	2055.	1228.	2693.

region lower a.

age	population	births	deaths	migration from lower a. to burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	110431.	0.	2908.	172.	68.	0.	392.	83.	178.	67.	28.	2306.
5	124076.	0.	242.	108.	32.	0.	218.	54.	111.	39.	23.	1590.
10	116032.	12.	256.	107.	48.	0.	521.	130.	183.	86.	38.	3912.
15	100933.	3080.	676.	306.	97.	0.	1114.	357.	429.	259.	109.	9046.
20	92420.	7228.	685.	198.	108.	0.	686.	223.	325.	184.	79.	5094.
25	79850.	4244.	598.	152.	70.	0.	462.	115.	220.	87.	40.	2998.
30	93140.	3261.	710.	87.	37.	0.	250.	46.	100.	40.	15.	1391.
35	79010.	1400.	1039.	70.	25.	0.	204.	52.	97.	34.	8.	1352.
40	87560.	470.	1492.	57.	27.	0.	175.	42.	76.	27.	16.	1299.
45	89536.	42.	2122.	37.	19.	0.	109.	37.	58.	22.	4.	883.
50	61809.	0.	2271.	41.	20.	0.	130.	18.	64.	8.	6.	946.
55	78158.	0.	4334.	51.	24.	0.	115.	24.	59.	14.	9.	888.
60	86557.	0.	8214.	45.	16.	0.	129.	35.	73.	16.	9.	765.
65	79879.	0.	12772.	34.	13.	0.	101.	28.	57.	12.	6.	595.
70	61736.	0.	15796.	21.	8.	0.	66.	17.	37.	7.	3.	383.
75	39461.	0.	16176.	11.	4.	0.	36.	10.	20.	4.	2.	212.
80	21815.	0.	14560.	4.	2.	0.	13.	3.	7.	2.	1.	75.
85	11758.	0.	13969.	2.	1.	0.	7.	2.	4.	1.	0.	40.
total	1414161.	19737.	98820.	1503.	619.	0.	4728.	1276.	2098.	909.	396.	33775.

region upper a.

age	population	births	deaths	migration from upper a. to burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	107907.	0.	2934.	23.	38.	389.	0.	401.	130.	93.	42.	229.
5	119323.	0.	311.	9.	30.	199.	0.	227.	128.	70.	21.	138.
10	109411.	4.	218.	6.	43.	255.	0.	732.	160.	201.	43.	353.
15	94938.	2481.	485.	24.	94.	582.	0.	1566.	552.	638.	98.	1608.
20	86865.	6949.	518.	20.	96.	530.	0.	776.	269.	248.	85.	782.
25	74678.	4499.	497.	16.	60.	383.	0.	487.	178.	165.	43.	341.
30	81906.	3475.	567.	9.	33.	206.	0.	252.	104.	76.	20.	167.
35	70391.	1587.	690.	5.	30.	123.	0.	184.	87.	47.	34.	152.
40	74000.	477.	1098.	6.	27.	151.	0.	161.	64.	60.	10.	163.
45	76410.	35.	1635.	10.	29.	69.	0.	121.	42.	16.	5.	113.
50	54541.	0.	1906.	5.	14.	85.	0.	124.	51.	26.	7.	113.
55	62341.	0.	3281.	3.	16.	116.	0.	152.	56.	31.	12.	109.
60	64059.	0.	5864.	5.	16.	98.	0.	125.	61.	19.	8.	100.
65	56923.	0.	9026.	4.	11.	74.	0.	93.	45.	15.	6.	75.
70	42240.	0.	11316.	2.	8.	47.	0.	60.	29.	9.	5.	48.
75	27021.	0.	11426.	2.	4.	25.	0.	31.	15.	5.	2.	26.
80	13785.	0.	9661.	0.	1.	8.	0.	10.	5.	1.	1.	9.
85	6705.	0.	8118.	0.	1.	4.	0.	5.	3.	1.	0.	4.
total	1223444.	19507.	69551.	149.	551.	3344.	0.	5507.	1979.	1721.	442.	4530.

APPENDIX A *Continued.*

region salzburg

age	population	births	deaths	migration from salzburg to burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	36950.	0.	921.	8.	69.	69.	303.	0.	126.	109.	24.	96.
5	38226.	0.	77.	0.	56.	57.	176.	0.	68.	81.	15.	45.
10	33340.	0.	85.	2.	53.	65.	199.	0.	88.	183.	26.	90.
15	29623.	786.	168.	5.	127.	105.	671.	0.	350.	488.	58.	568.
20	31876.	2460.	190.	11.	131.	121.	536.	0.	205.	282.	73.	397.
25	29094.	1771.	168.	8.	92.	85.	359.	0.	152.	167.	30.	165.
30	28233.	1155.	180.	5.	49.	31.	210.	0.	69.	72.	16.	67.
35	22091.	452.	242.	2.	46.	32.	116.	0.	50.	62.	15.	65.
40	23845.	160.	351.	0.	18.	35.	123.	0.	32.	53.	13.	56.
45	24428.	18.	525.	2.	12.	27.	94.	0.	19.	44.	5.	54.
50	18133.	0.	633.	1.	19.	16.	86.	0.	35.	43.	10.	53.
55	20457.	0.	974.	3.	21.	22.	91.	0.	21.	34.	3.	42.
60	20655.	0.	1855.	2.	13.	23.	73.	0.	24.	29.	6.	35.
65	18039.	0.	2570.	1.	10.	18.	52.	0.	18.	21.	4.	26.
70	12837.	0.	3222.	1.	6.	11.	32.	0.	11.	13.	3.	16.
75	7838.	0.	3089.	0.	3.	5.	17.	0.	5.	7.	2.	8.
80	4066.	0.	2706.	0.	1.	2.	5.	0.	1.	2.	1.	3.
85	2035.	0.	2322.	0.	1.	1.	3.	0.	1.	1.	0.	2.
total	401766.	6802.	20278.	51.	727.	725.	3146.	0.	1275.	1691.	304.	1788.

region styria

age	population	births	deaths	migration from styria to burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	99146.	0.	2839.	104.	273.	265.	207.	194.	0.	146.	128.	316.
5	109393.	0.	260.	50.	137.	177.	128.	108.	0.	63.	58.	174.
10	102763.	5.	218.	59.	274.	415.	287.	383.	0.	359.	332.	530.
15	89731.	2602.	507.	154.	557.	609.	574.	750.	0.	822.	646.	1613.
20	85602.	6614.	601.	136.	468.	381.	476.	484.	0.	430.	292.	941.
25	73318.	4021.	535.	121.	339.	294.	309.	256.	0.	225.	134.	525.
30	77594.	2869.	620.	52.	141.	140.	130.	111.	0.	83.	51.	179.
35	64651.	1401.	785.	37.	121.	134.	104.	82.	0.	67.	41.	159.
40	73620.	490.	1195.	34.	81.	106.	103.	71.	0.	52.	28.	183.
45	77641.	36.	1815.	24.	58.	59.	57.	54.	0.	33.	18.	127.
50	54474.	0.	2035.	22.	70.	60.	38.	56.	0.	42.	28.	124.
55	64898.	0.	3547.	26.	101.	99.	52.	48.	0.	23.	27.	110.
60	66872.	0.	6264.	17.	68.	68.	63.	40.	0.	19.	13.	110.
65	58679.	0.	9254.	13.	51.	52.	47.	31.	0.	14.	10.	83.
70	43966.	0.	11557.	9.	33.	33.	30.	20.	0.	10.	6.	53.
75	27639.	0.	11611.	4.	18.	18.	16.	11.	0.	5.	3.	28.
80	14862.	0.	10259.	1.	5.	6.	5.	4.	0.	1.	1.	10.
85	7251.	0.	8682.	1.	3.	3.	3.	2.	0.	1.	0.	5.
total	1192100.	18038.	72584.	864.	2798.	2919.	2629.	2705.	0.	2395.	1816.	5270.

region tyrol

age	population	births	deaths	migration from tyrol to burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	52872.	0.	1246.	6.	111.	60.	109.	119.	86.	0.	85.	93.
5	55432.	0.	144.	5.	50.	31.	68.	82.	29.	0.	86.	31.
10	47568.	7.	93.	1.	74.	28.	77.	131.	50.	0.	162.	64.
15	40714.	927.	214.	10.	206.	100.	197.	304.	267.	0.	308.	376.
20	43733.	3096.	250.	9.	201.	103.	299.	301.	221.	0.	286.	325.
25	38760.	2510.	247.	11.	146.	95.	174.	210.	110.	0.	139.	164.
30	37997.	1821.	252.	3.	73.	30.	86.	85.	53.	0.	87.	81.
35	30024.	859.	289.	2.	40.	17.	72.	69.	31.	0.	48.	60.
40	31047.	312.	424.	2.	27.	27.	59.	61.	27.	0.	44.	58.
45	29982.	22.	600.	0.	18.	16.	28.	32.	14.	0.	19.	40.
50	21953.	0.	708.	2.	21.	12.	29.	56.	29.	0.	25.	29.
55	26389.	0.	1313.	1.	25.	15.	37.	34.	15.	0.	33.	45.
60	26739.	0.	2193.	2.	18.	13.	24.	30.	15.	0.	20.	28.
65	22463.	0.	3210.	1.	14.	9.	17.	22.	11.	0.	16.	21.
70	16277.	0.	3855.	0.	8.	7.	10.	14.	6.	0.	10.	14.
75	10219.	0.	3952.	0.	5.	3.	6.	8.	3.	0.	5.	7.
80	5684.	0.	3502.	0.	1.	1.	2.	3.	1.	0.	2.	2.
85	2918.	0.	3286.	0.	1.	1.	1.	1.	1.	0.	1.	1.
total	540771.	9554.	25778.	55.	1039.	568.	1295.	1562.	969.	0.	1376.	1439.

region vorarlb.

age	population	births	deaths	migration from vorarlb. to burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	27669.	0.	728.	6.	80.	33.	29.	24.	118.	86.	0.	31.
5	28745.	0.	79.	7.	25.	10.	19.	15.	20.	79.	0.	24.
10	24496.	0.	39.	3.	23.	14.	16.	22.	24.	173.	0.	41.
15	21749.	540.	100.	10.	125.	42.	66.	92.	211.	563.	0.	234.
20	22197.	1711.	119.	11.	156.	51.	89.	90.	238.	218.	0.	141.
25	19761.	1496.	115.	6.	89.	44.	58.	51.	146.	130.	0.	69.
30	20153.	907.	136.	2.	37.	20.	28.	22.	49.	77.	0.	37.
35	16324.	487.	156.	7.	17.	10.	15.	17.	28.	51.	0.	23.
40	16079.	141.	212.	6.	15.	8.	18.	8.	18.	29.	0.	27.
45	14796.	16.	341.	1.	9.	7.	11.	6.	9.	27.	0.	17.
50	9329.	0.	323.	0.	11.	10.	6.	4.	20.	34.	0.	12.
55	12001.	0.	540.	0.	9.	8.	7.	11.	15.	37.	0.	15.
60	12253.	0.	1000.	1.	6.	7.	9.	11.	12.	22.	0.	9.
65	10552.	0.	1487.	0.	4.	5.	5.	7.	8.	16.	0.	7.
70	7197.	0.	1665.	0.	2.	3.	4.	5.	5.	10.	0.	4.
75	4414.	0.	1686.	0.	2.	2.	2.	3.	3.	6.	0.	2.
80	2468.	0.	1626.	0.	0.	1.	0.	1.	1.	1.	0.	1.
85	1290.	0.	1423.	0.	0.	0.	0.	1.	0.	1.	0.	0.
total	271473.	5298.	11775.	60.	610.	275.	382.	390.	925.	1560.	0.	694.

APPENDIX A *Continued.*

region vienna

age	population	births	deaths	migration from vienna to burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	91679.	0.	2456.	210.	87.	2710.	240.	140.	251.	93.	36.	0.
5	94017.	0.	203.	95.	36.	1914.	111.	66.	91.	49.	14.	0.
10	77383.	5.	142.	102.	30.	1022.	83.	45.	82.	44.	16.	0.
15	67558.	1997.	307.	211.	155.	2483.	374.	265.	332.	184.	80.	0.
20	110361.	5930.	501.	244.	309.	3835.	753.	524.	407.	306.	110.	0.
25	127877.	5156.	646.	233.	214.	3358.	559.	299.	316.	192.	94.	0.
30	113302.	2977.	710.	144.	69.	1744.	160.	116.	110.	73.	31.	0.
35	79741.	848.	775.	117.	51.	1642.	115.	86.	88.	60.	28.	0.
40	97633.	271.	1541.	113.	51.	1730.	129.	82.	107.	53.	18.	0.
45	115257.	14.	2759.	62.	34.	1191.	83.	55.	84.	23.	16.	0.
50	83950.	0.	3207.	73.	42.	1291.	109.	50.	83.	37.	11.	0.
55	106923.	0.	5794.	110.	61.	1509.	134.	52.	122.	43.	9.	0.
60	125752.	0.	11762.	78.	46.	1366.	131.	56.	116.	37.	7.	0.
65	118440.	0.	18643.	60.	35.	1072.	102.	45.	90.	29.	4.	0.
70	92958.	0.	23593.	39.	24.	707.	67.	30.	60.	18.	3.	0.
75	61353.	0.	24507.	21.	13.	389.	37.	17.	33.	11.	2.	0.
80	33785.	0.	21466.	7.	5.	129.	13.	6.	11.	3.	1.	0.
85	16872.	0.	19325.	3.	2.	65.	6.	3.	5.	2.	0.	0.
total	1614841.	17198.	138337.	1922.	1264.	28157.	3206.	1937.	2388.	1257.	480.	0.

Observed population characteristics in the four regions.

region east

age	population	births	deaths	migration from east	migration from south	east to central	east to west
0	222805.	0.	5908.	0.	670.	877.	236.
5	241862.	0.	495.	0.	328.	468.	134.
10	217958.	17.	434.	0.	537.	828.	232.
15	190694.	5813.	1147.	0.	1280.	2192.	700.
20	221841.	14770.	1311.	0.	1289.	2231.	707.
25	220003.	10121.	1349.	0.	910.	1464.	433.
30	223552.	6821.	1561.	0.	368.	588.	167.
35	175323.	2520.	2031.	0.	293.	480.	142.
40	203445.	816.	3392.	0.	312.	438.	121.
45	223971.	59.	5383.	0.	222.	289.	68.
50	157548.	0.	5966.	0.	241.	312.	65.
55	199890.	0.	10975.	0.	280.	331.	78.
60	228170.	0.	21600.	0.	269.	357.	74.
65	211936.	0.	33696.	0.	210.	280.	53.
70	165663.	0.	42272.	0.	138.	182.	33.
75	107403.	0.	43500.	0.	74.	101.	19.
80	58835.	0.	38315.	0.	26.	35.	7.
85	30222.	0.	35277.	0.	13.	18.	3.
total	3301121.	40937.	254612.	0.	7460.	11471.	3272.

region south

age	population	births	deaths	migration from east	migration from south	south to central	south to west
0	145375.	0.	4277.	853.	0.	575.	481.
5	159800.	0.	380.	530.	0.	329.	256.
10	152593.	15.	325.	1342.	0.	1044.	1276.
15	133738.	3622.	763.	3760.	0.	1950.	2613.
20	122376.	9685.	855.	2081.	0.	1381.	1163.
25	104019.	5974.	750.	1225.	0.	800.	600.
30	111358.	4296.	909.	464.	0.	346.	252.
35	92753.	2017.	1103.	408.	0.	276.	219.
40	106657.	743.	1746.	411.	0.	240.	156.
45	111322.	60.	2598.	269.	0.	149.	99.
50	77893.	0.	2869.	263.	0.	134.	117.
55	92442.	0.	5016.	296.	0.	132.	93.
60	94962.	0.	8715.	253.	0.	137.	65.
65	82319.	0.	12730.	190.	0.	102.	48.
70	61253.	0.	15971.	121.	0.	65.	31.
75	38131.	0.	15981.	65.	0.	36.	17.
80	20691.	0.	13989.	22.	0.	12.	5.
85	10146.	0.	11988.	11.	0.	7.	3.
total	1717828.	26412.	100965.	12564.	0.	7715.	7494.

region central

age	population	births	deaths	migration from east	migration from south	central to central	central to west
0	144857.	0.	3855.	814.	363.	0.	268.
5	157549.	0.	388.	448.	282.	0.	187.
10	142751.	4.	303.	771.	344.	0.	453.
15	124561.	3267.	653.	2892.	1123.	0.	1282.
20	118741.	9409.	708.	1861.	701.	0.	688.
25	103772.	6270.	665.	998.	482.	0.	405.
30	110139.	4630.	747.	485.	255.	0.	184.
35	92482.	2039.	932.	379.	213.	0.	158.
40	97845.	637.	1449.	411.	141.	0.	136.
45	100838.	53.	2160.	275.	102.	0.	70.
50	72674.	0.	2539.	273.	119.	0.	86.
55	82798.	0.	4255.	295.	114.	0.	80.
60	84714.	0.	7719.	263.	114.	0.	62.
65	74962.	0.	11596.	198.	84.	0.	46.
70	55077.	0.	14538.	125.	54.	0.	30.
75	34859.	0.	14515.	66.	27.	0.	16.
80	17851.	0.	12367.	22.	8.	0.	5.
85	8740.	0.	10440.	11.	6.	0.	2.
total	1625210.	26309.	89829.	10587.	4532.	0.	4158.

region west

age	population	births	deaths	migration from east	migration from south	west to central	west to west
0	80541.	0.	1974.	229.	395.	281.	0.
5	84177.	0.	223.	108.	124.	184.	0.
10	72064.	7.	132.	151.	171.	246.	0.
15	62463.	1467.	314.	772.	809.	659.	0.
20	65930.	4807.	369.	640.	816.	779.	0.
25	58521.	4006.	362.	389.	491.	493.	0.
30	58150.	2728.	388.	173.	212.	221.	0.
35	46348.	1346.	445.	119.	116.	173.	0.
40	47126.	453.	636.	128.	87.	146.	0.
45	44778.	38.	941.	81.	50.	77.	0.
50	31282.	0.	1031.	65.	81.	95.	0.
55	38390.	0.	1853.	84.	64.	89.	0.
60	38992.	0.	3193.	60.	51.	74.	0.
65	33015.	0.	4697.	43.	37.	51.	0.
70	23474.	0.	5520.	28.	21.	33.	0.
75	14633.	0.	5638.	14.	13.	19.	0.
80	8152.	0.	5128.	5.	3.	6.	0.
85	4208.	0.	4709.	2.	2.	3.	0.
total	812244.	14852.	37553.	3091.	3543.	3629.	0.

Appendix B

OBSERVED AGE-SPECIFIC RATES OF FERTILITY, MORTALITY, AND MIGRATION IN THE NINE PROVINCES AND FOUR REGIONS (1966–1971)

APPENDIX B

Death rates in the nine provinces.

age	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.005257	0.006221	0.005267	0.005438	0.004985	0.005727	0.004713	0.005262	0.005358
5	0.000421	0.000476	0.000390	0.000521	0.000403	0.000475	0.000520	0.000550	0.000432
10	0.000293	0.000429	0.000441	0.000398	0.000510	0.000424	0.000391	0.000318	0.000367
15	0.001477	0.001163	0.001340	0.001022	0.001134	0.001130	0.001051	0.000920	0.000909
20	0.001312	0.001381	0.001482	0.001193	0.001192	0.001404	0.001143	0.001072	0.000908
25	0.001711	0.001401	0.001498	0.001331	0.001155	0.001459	0.001275	0.001164	0.001010
30	0.001648	0.001712	0.001525	0.001385	0.001275	0.001598	0.001326	0.001350	0.001253
35	0.002619	0.002263	0.002630	0.001960	0.002191	0.002428	0.001925	0.001911	0.001944
40	0.003934	0.003336	0.003408	0.002968	0.002944	0.003246	0.002731	0.002637	0.003157
45	0.005235	0.004650	0.004740	0.004280	0.004298	0.004675	0.004002	0.004609	0.004788
50	0.008279	0.007122	0.007348	0.006989	0.006982	0.007471	0.006450	0.006925	0.007640
55	0.011439	0.010667	0.011090	0.010526	0.009522	0.010931	0.009951	0.008999	0.010838
60	0.020478	0.017451	0.018979	0.018308	0.017962	0.018734	0.016403	0.016323	0.018707
65	0.033502	0.029408	0.031978	0.031713	0.028494	0.031541	0.028580	0.028184	0.031481
70	0.052566	0.051067	0.051173	0.053580	0.050199	0.052572	0.047367	0.046269	0.050761
75	0.085506	0.083302	0.081985	0.084571	0.078821	0.084019	0.077346	0.076393	0.079889
80	0.141515	0.127981	0.133486	0.140167	0.133104	0.138057	0.123223	0.131767	0.127074
85	0.249121	0.228394	0.237608	0.242148	0.228206	0.239470	0.225223	0.220620	0.229078
gross	3.131564	2.892119	2.981844	3.042485	2.866886	3.026825	2.768111	2.776367	2.877959
crude	0.012829	0.010797	0.013976	0.011370	0.010094	0.012178	0.009534	0.008675	0.017133
m.age	78.6100	78.4575	78.5976	78.8817	78.8493	78.6381	78.9126	78.8686	78.6640

Fertility rates in the nine provinces.

age	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
5	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
10	0.000000	0.000201	0.000103	0.000037	0.000000	0.000049	0.000147	0.000000	0.000065
15	0.033149	0.023178	0.030515	0.026133	0.026533	0.028998	0.022769	0.024829	0.029560
20	0.084575	0.083510	0.078208	0.079998	0.077174	0.077265	0.070793	0.077082	0.053733
25	0.058732	0.063614	0.053150	0.060245	0.060872	0.054843	0.064757	0.075705	0.040320
30	0.034074	0.042264	0.035012	0.042427	0.040910	0.036975	0.047925	0.045006	0.026275
35	0.016413	0.021920	0.017719	0.022545	0.020461	0.021670	0.028610	0.029833	0.010634
40	0.004109	0.007658	0.005368	0.006446	0.006710	0.006656	0.010049	0.008769	0.002776
45	0.000156	0.000713	0.000469	0.000458	0.000737	0.000464	0.000734	0.001081	0.000121
50	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
55	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
60	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
65	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
70	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
75	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
80	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
85	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
gross	1.156043	1.215286	1.102722	1.191443	1.166982	1.134592	1.228924	1.311528	0.817418
crude	0.014707	0.015928	0.013957	0.015944	0.016930	0.015131	0.017667	0.019516	0.010650
m.age	25.9642	27.1186	26.3411	27.0030	26.9573	26.7669	27.9305	27.6633	25.7662

Interprovincial out-migration rates.

	migration from burgenl. to								
age	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.005750	0.000000	0.000048	0.001788	0.000135	0.000077	0.000783	0.000029	0.000087	0.002803
5	0.003921	0.000000	0.000034	0.001237	0.000118	0.000042	0.000454	0.000034	0.000042	0.001961
10	0.014774	0.000000	0.000122	0.003162	0.000236	0.000163	0.001459	0.000220	0.000171	0.009241
15	0.024925	0.000000	0.000153	0.003918	0.000477	0.000261	0.002252	0.000279	0.000333	0.017250
20	0.012172	0.000000	0.000073	0.003064	0.000199	0.000273	0.001396	0.000115	0.000178	0.006873
25	0.012138	0.000000	0.000130	0.003030	0.000342	0.000130	0.001336	0.000098	0.000228	0.006843
30	0.004535	0.000000	0.000023	0.001321	0.000152	0.000035	0.000584	0.000035	0.000058	0.002326
35	0.004308	0.000000	0.000012	0.001098	0.000193	0.000084	0.000374	0.000036	0.000109	0.002402
40	0.003693	0.000000	0.000055	0.000855	0.000088	0.000022	0.000504	0.000055	0.000022	0.002093
45	0.001961	0.000000	0.000010	0.000521	0.000042	0.000010	0.000271	0.000000	0.000031	0.001074
50	0.003240	0.000000	0.000034	0.000797	0.000068	0.000017	0.000509	0.000034	0.000017	0.001764
55	0.002161	0.000000	0.000014	0.000756	0.000041	0.000041	0.000176	0.000027	0.000014	0.001094
60	0.001917	0.000000	0.000025	0.000643	0.000050	0.000025	0.000202	0.000038	0.000025	0.000908
65	0.001763	0.000000	0.000029	0.000602	0.000044	0.000015	0.000191	0.000015	0.000015	0.000852
70	0.001313	0.000000	0.000018	0.000438	0.000036	0.000000	0.000146	0.000018	0.000018	0.000638
75	0.001062	0.000000	0.000000	0.000364	0.000030	0.000000	0.000121	0.000000	0.000000	0.000546
80	0.000618	0.000000	0.000000	0.000247	0.000000	0.000000	0.000062	0.000000	0.000000	0.000309
85	0.000754	0.000000	0.000000	0.000251	0.000000	0.000000	0.000126	0.000000	0.000000	0.000377
gross	0.505021	0.000000	0.003910	0.120469	0.011262	0.005980	0.054725	0.005164	0.006744	0.296765
crude	0.007028	0.000000	0.000054	0.001618	0.000153	0.000085	0.000748	0.000075	0.000094	0.004200
m.age	26.3249	0.0000	27.2267	28.5488	27.2266	23.7140	27.1231	25.2557	24.2714	25.3467

	migration from carinth. to								
age	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.003279	0.000069	0.000000	0.000229	0.000359	0.000394	0.000904	0.000489	0.000407	0.000428
5	0.001952	0.000060	0.000000	0.000179	0.000194	0.000175	0.000536	0.000325	0.000210	0.000274
10	0.006446	0.000036	0.000000	0.000357	0.000325	0.001176	0.001240	0.001557	0.000791	0.000963
15	0.019665	0.000077	0.000000	0.000686	0.000764	0.002081	0.005326	0.003009	0.002195	0.005526
20	0.010545	0.000076	0.000000	0.000680	0.000854	0.001436	0.002469	0.001501	0.000897	0.002632
25	0.006612	0.000046	0.000000	0.000443	0.000593	0.000938	0.001655	0.001062	0.000508	0.001368
30	0.002594	0.000024	0.000000	0.000172	0.000261	0.000361	0.000723	0.000462	0.000237	0.000355
35	0.002633	0.000028	0.000000	0.000157	0.000292	0.000349	0.000648	0.000576	0.000214	0.000370
40	0.001883	0.000030	0.000000	0.000206	0.000139	0.000260	0.000490	0.000303	0.000157	0.000247
45	0.001259	0.000018	0.000000	0.000095	0.000065	0.000160	0.000398	0.000208	0.000077	0.000238
50	0.001887	0.000000	0.000000	0.000102	0.000120	0.000222	0.000658	0.000290	0.000111	0.000384
55	0.001401	0.000007	0.000000	0.000174	0.000087	0.000145	0.000414	0.000232	0.000080	0.000261
60	0.001353	0.000014	0.000000	0.000142	0.000107	0.000135	0.000463	0.000171	0.000064	0.000256
65	0.001168	0.000000	0.000000	0.000127	0.000085	0.000118	0.000406	0.000144	0.000059	0.000228
70	0.000983	0.000000	0.000000	0.000104	0.000069	0.000104	0.000336	0.000127	0.000046	0.000197
75	0.000953	0.000000	0.000000	0.000114	0.000076	0.000095	0.000324	0.000114	0.000057	0.000172
80	0.000549	0.000000	0.000000	0.000069	0.000034	0.000069	0.000172	0.000069	0.000034	0.000103
85	0.000622	0.000000	0.000000	0.000069	0.000069	0.000069	0.000207	0.000069	0.000069	0.000069
gross	0.328929	0.002428	0.000000	0.020528	0.022465	0.041442	0.086838	0.053544	0.031072	0.070612
crude	0.004706	0.000037	0.000000	0.000274	0.000309	0.000597	0.001215	0.000782	0.000467	0.001024
m.age	27.0183	21.9682	0.0000	32.0457	28.3153	26.3162	28.7863	25.8584	23.5271	25.9714

APPENDIX B *Continued.*

	migration from lower a. to								
age	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.005966	0.000312	0.000123	0.000000	0.000710	0.000150	0.000322	0.000121	0.000051	0.004176
5	0.003506	0.000174	0.000052	0.000000	0.000351	0.000087	0.000179	0.000063	0.000037	0.002563
10	0.008661	0.000184	0.000083	0.000000	0.000898	0.000224	0.000315	0.000148	0.000065	0.006743
15	0.023217	0.000606	0.000192	0.000000	0.002207	0.000707	0.000850	0.000513	0.000216	0.017925
20	0.014925	0.000428	0.000234	0.000000	0.001485	0.000483	0.000703	0.000398	0.000171	0.011024
25	0.010379	0.000381	0.000175	0.000000	0.001157	0.000288	0.000551	0.000218	0.000100	0.007509
30	0.004222	0.000187	0.000079	0.000000	0.000537	0.000099	0.000215	0.000086	0.000032	0.002987
35	0.004663	0.000177	0.000063	0.000000	0.000516	0.000132	0.000246	0.000086	0.000020	0.003422
40	0.003926	0.000130	0.000062	0.000000	0.000400	0.000096	0.000174	0.000062	0.000037	0.002967
45	0.002611	0.000083	0.000042	0.000000	0.000243	0.000083	0.000130	0.000049	0.000009	0.001972
50	0.003990	0.000133	0.000065	0.000000	0.000421	0.000058	0.000207	0.000026	0.000019	0.003061
55	0.003030	0.000131	0.000061	0.000000	0.000294	0.000061	0.000151	0.000036	0.000023	0.002272
60	0.002514	0.000104	0.000037	0.000000	0.000298	0.000081	0.000169	0.000037	0.000021	0.001768
65	0.002118	0.000085	0.000033	0.000000	0.000253	0.000070	0.000143	0.000030	0.000015	0.001490
70	0.001756	0.000068	0.000026	0.000000	0.000214	0.000055	0.000120	0.000023	0.000010	0.001241
75	0.001515	0.000056	0.000020	0.000000	0.000182	0.000051	0.000101	0.000020	0.000010	0.001074
80	0.000981	0.000037	0.000018	0.000000	0.000119	0.000028	0.000064	0.000018	0.000009	0.000688
85	0.000970	0.000034	0.000017	0.000000	0.000119	0.000034	0.000068	0.000017	0.000000	0.000680
gross	0.494753	0.016546	0.006914	0.000000	0.052026	0.013932	0.023537	0.009758	0.004228	0.367812
crude	0.006407	0.000213	0.000088	0.000000	0.000669	0.000180	0.000297	0.000129	0.000056	0.004777
m.age	29.0476	29.9941	30.8462	0.0000	29.7398	28.9552	31.6914	26.3939	26.3618	28.8089

	migration from upper a. to								
age	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.002493	0.000043	0.000070	0.000721	0.000000	0.000743	0.000241	0.000172	0.000078	0.000424
5	0.001378	0.000015	0.000050	0.000334	0.000000	0.000380	0.000215	0.000117	0.000035	0.000231
10	0.003278	0.000011	0.000079	0.000466	0.000000	0.001338	0.000292	0.000367	0.000079	0.000645
15	0.010874	0.000051	0.000198	0.001226	0.000000	0.003299	0.001163	0.001344	0.000206	0.003387
20	0.006461	0.000046	0.000221	0.001220	0.000000	0.001787	0.000619	0.000571	0.000196	0.001800
25	0.004481	0.000043	0.000161	0.001026	0.000000	0.001304	0.000477	0.000442	0.000115	0.000913
30	0.002117	0.000022	0.000081	0.000503	0.000000	0.000615	0.000254	0.000186	0.000049	0.000408
35	0.001881	0.000014	0.000085	0.000349	0.000000	0.000523	0.000247	0.000134	0.000097	0.000432
40	0.001735	0.000016	0.000073	0.000408	0.000000	0.000435	0.000173	0.000162	0.000027	0.000441
45	0.001060	0.000026	0.000076	0.000181	0.000000	0.000317	0.000110	0.000042	0.000013	0.000296
50	0.001558	0.000018	0.000051	0.000312	0.000000	0.000455	0.000187	0.000095	0.000026	0.000414
55	0.001588	0.000010	0.000051	0.000372	0.000000	0.000488	0.000180	0.000099	0.000038	0.000350
60	0.001349	0.000016	0.000050	0.000306	0.000000	0.000390	0.000190	0.000059	0.000025	0.000312
65	0.001135	0.000014	0.000039	0.000260	0.000000	0.000327	0.000158	0.000053	0.000021	0.000264
70	0.000985	0.000009	0.000038	0.000223	0.000000	0.000284	0.000137	0.000043	0.000024	0.000227
75	0.000819	0.000015	0.000030	0.000185	0.000000	0.000229	0.000111	0.000037	0.000015	0.000192
80	0.000508	0.000000	0.000015	0.000116	0.000000	0.000145	0.000073	0.000015	0.000015	0.000131
85	0.000537	0.000000	0.000030	0.000119	0.000000	0.000149	0.000089	0.000030	0.000000	0.000119
gross	0.221155	0.001843	0.006984	0.041634	0.000000	0.066044	0.024583	0.019840	0.005289	0.054938
crude	0.002979	0.000024	0.000090	0.000547	0.000000	0.000900	0.000324	0.000281	0.000072	0.000741
m.age	30.2336	32.3095	33.7479	32.1319	0.0000	29.5359	32.2294	25.7303	28.5615	30.0115

migration from salzburg to

age	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.004352	0.000045	0.000373	0.000373	0.001640	0.000000	0.000682	0.000590	0.000130	0.000520
5	0.002606	0.000000	0.000293	0.000298	0.000921	0.000000	0.000356	0.000424	0.000078	0.000235
10	0.004235	0.000012	0.000318	0.000390	0.001194	0.000000	0.000528	0.001098	0.000156	0.000540
15	0.016015	0.000034	0.000857	0.000709	0.004530	0.000000	0.002363	0.003295	0.000392	0.003835
20	0.011018	0.000069	0.000822	0.000759	0.003363	0.000000	0.001286	0.001769	0.000458	0.002491
25	0.007273	0.000055	0.000632	0.000584	0.002468	0.000000	0.001045	0.001148	0.000206	0.001134
30	0.003677	0.000035	0.000347	0.000220	0.001488	0.000000	0.000489	0.000510	0.000113	0.000475
35	0.003513	0.000018	0.000416	0.000290	0.001050	0.000000	0.000453	0.000561	0.000136	0.000588
40	0.002768	0.000000	0.000151	0.000294	0.001032	0.000000	0.000268	0.000445	0.000109	0.000470
45	0.002104	0.000016	0.000098	0.000221	0.000770	0.000000	0.000156	0.000360	0.000041	0.000442
50	0.002901	0.000011	0.000210	0.000176	0.000949	0.000000	0.000386	0.000474	0.000110	0.000585
55	0.002317	0.000029	0.000205	0.000215	0.000890	0.000000	0.000205	0.000332	0.000029	0.000411
60	0.001985	0.000019	0.000126	0.000223	0.000707	0.000000	0.000232	0.000281	0.000058	0.000339
65	0.001663	0.000011	0.000111	0.000200	0.000577	0.000000	0.000200	0.000233	0.000044	0.000288
70	0.001449	0.000016	0.000093	0.000171	0.000499	0.000000	0.000171	0.000203	0.000047	0.000249
75	0.001199	0.000000	0.000077	0.000128	0.000434	0.000000	0.000128	0.000179	0.000051	0.000204
80	0.000738	0.000000	0.000049	0.000098	0.000246	0.000000	0.000049	0.000098	0.000049	0.000148
85	0.000885	0.000000	0.000098	0.000098	0.000295	0.000000	0.000098	0.000098	0.000000	0.000197
gross	0.353478	0.001847	0.026391	0.027237	0.115248	0.000000	0.045475	0.060490	0.011042	0.065749
crude	0.004832	0.000025	0.000362	0.000361	0.001566	0.000000	0.000635	0.000842	0.000151	0.000890
m.age	30.2483	32.1526	30.2197	33.5258	31.0971	0.0000	28.2237	28.3987	30.1360	30.4813

migration from styria to

age	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.003294	0.000210	0.000551	0.000535	0.000418	0.000391	0.000000	0.000295	0.000258	0.000637
5	0.001636	0.000091	0.000250	0.000324	0.000234	0.000197	0.000000	0.000115	0.000106	0.000318
10	0.005136	0.000115	0.000533	0.000808	0.000559	0.000745	0.000000	0.000699	0.000646	0.001031
15	0.012760	0.000343	0.001241	0.001357	0.001279	0.001672	0.000000	0.001832	0.001440	0.003595
20	0.008430	0.000318	0.001093	0.000890	0.001112	0.001131	0.000000	0.001005	0.000682	0.002199
25	0.006009	0.000330	0.000925	0.000802	0.000843	0.000698	0.000000	0.000614	0.000366	0.001432
30	0.002286	0.000134	0.000363	0.000361	0.000335	0.000286	0.000000	0.000214	0.000131	0.000461
35	0.002305	0.000114	0.000374	0.000415	0.000322	0.000254	0.000000	0.000207	0.000127	0.000492
40	0.001788	0.000092	0.000220	0.000288	0.000280	0.000193	0.000000	0.000141	0.000076	0.000497
45	0.001108	0.000062	0.000149	0.000152	0.000147	0.000139	0.000000	0.000085	0.000046	0.000327
50	0.001615	0.000081	0.000257	0.000220	0.000140	0.000206	0.000000	0.000154	0.000103	0.000455
55	0.001498	0.000080	0.000311	0.000305	0.000160	0.000148	0.000000	0.000071	0.000083	0.000339
60	0.001190	0.000051	0.000203	0.000203	0.000188	0.000120	0.000000	0.000057	0.000039	0.000329
65	0.001026	0.000044	0.000174	0.000177	0.000160	0.000106	0.000000	0.000048	0.000034	0.000283
70	0.000883	0.000041	0.000150	0.000150	0.000136	0.000091	0.000000	0.000045	0.000027	0.000241
75	0.000745	0.000029	0.000130	0.000130	0.000116	0.000080	0.000000	0.000036	0.000022	0.000203
80	0.000444	0.000013	0.000067	0.000081	0.000067	0.000054	0.000000	0.000013	0.000013	0.000135
85	0.000496	0.000028	0.000083	0.000083	0.000083	0.000055	0.000000	0.000028	0.000000	0.000138
gross	0.263250	0.010884	0.035386	0.036403	0.032893	0.032826	0.000000	0.028294	0.021001	0.065564
crude	0.003590	0.000145	0.000469	0.000490	0.000441	0.000454	0.000000	0.000402	0.000305	0.000884
m.age	27.8947	29.4661	30.1788	29.5429	29.3343	26.6918	0.0000	23.8950	22.4431	28.8382

APPENDIX B *Continued.*

	migration from tyrol to								
age	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.002531	0.000023	0.000420	0.000227	0.000412	0.000450	0.000325	0.000000	0.000322	0.000352
5	0.001378	0.000018	0.000180	0.000112	0.000245	0.000296	0.000105	0.000000	0.000310	0.000112
10	0.002468	0.000004	0.000311	0.000118	0.000324	0.000551	0.000210	0.000000	0.000681	0.000269
15	0.008685	0.000049	0.001012	0.000491	0.000968	0.001493	0.001312	0.000000	0.001513	0.001847
20	0.007980	0.000041	0.000919	0.000471	0.001367	0.001377	0.001011	0.000000	0.001308	0.001486
25	0.005413	0.000057	0.000753	0.000490	0.000898	0.001084	0.000568	0.000000	0.000717	0.000846
30	0.002621	0.000016	0.000384	0.000158	0.000453	0.000447	0.000279	0.000000	0.000458	0.000426
35	0.002258	0.000013	0.000266	0.000113	0.000480	0.000460	0.000207	0.000000	0.000320	0.000400
40	0.001965	0.000013	0.000174	0.000174	0.000380	0.000393	0.000174	0.000000	0.000283	0.000374
45	0.001114	0.000000	0.000120	0.000107	0.000187	0.000213	0.000093	0.000000	0.000127	0.000267
50	0.001849	0.000018	0.000191	0.000109	0.000264	0.000510	0.000264	0.000000	0.000228	0.000264
55	0.001554	0.000008	0.000189	0.000114	0.000280	0.000258	0.000114	0.000000	0.000250	0.000341
60	0.001122	0.000015	0.000135	0.000097	0.000180	0.000224	0.000112	0.000000	0.000150	0.000209
65	0.000988	0.000009	0.000125	0.000080	0.000151	0.000196	0.000098	0.000000	0.000142	0.000187
70	0.000848	0.000000	0.000098	0.000086	0.000123	0.000172	0.000074	0.000000	0.000123	0.000172
75	0.000724	0.000000	0.000098	0.000059	0.000117	0.000157	0.000059	0.000000	0.000098	0.000137
80	0.000422	0.000000	0.000035	0.000035	0.000070	0.000106	0.000035	0.000000	0.000070	0.000070
85	0.000480	0.000000	0.000069	0.000069	0.000069	0.000069	0.000069	0.000000	0.000069	0.000069
gross	0.222002	0.001418	0.027403	0.015548	0.034841	0.042273	0.025535	0.000000	0.035843	0.039142
crude	0.003071	0.000020	0.000384	0.000210	0.000479	0.000578	0.000358	0.000000	0.000509	0.000532
m.age	30.4471	28.4862	29.6235	32.4289	31.3244	31.2151	28.7824	0.0000	28.7107	31.3730

	migration from vorarlb. to								
age	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.002942	0.000043	0.000578	0.000239	0.000210	0.000173	0.000853	0.000622	0.000000	0.000224
5	0.001385	0.000049	0.000174	0.000070	0.000132	0.000104	0.000139	0.000550	0.000000	0.000167
10	0.002580	0.000024	0.000188	0.000114	0.000131	0.000180	0.000196	0.001412	0.000000	0.000335
15	0.012350	0.000092	0.001149	0.000386	0.000607	0.000846	0.001940	0.005177	0.000000	0.002152
20	0.008956	0.000099	0.001406	0.000460	0.000802	0.000811	0.002144	0.001964	0.000000	0.001270
25	0.006002	0.000061	0.000901	0.000445	0.000587	0.000516	0.001478	0.001316	0.000000	0.000698
30	0.002699	0.000020	0.000367	0.000198	0.000278	0.000218	0.000486	0.000764	0.000000	0.000367
35	0.002058	0.000086	0.000208	0.000123	0.000184	0.000208	0.000343	0.000625	0.000000	0.000282
40	0.001605	0.000075	0.000187	0.000100	0.000224	0.000100	0.000224	0.000361	0.000000	0.000336
45	0.001176	0.000014	0.000122	0.000095	0.000149	0.000081	0.000122	0.000365	0.000000	0.000230
50	0.002080	0.000000	0.000236	0.000214	0.000129	0.000086	0.000429	0.000729	0.000000	0.000257
55	0.001700	0.000000	0.000150	0.000133	0.000117	0.000183	0.000250	0.000617	0.000000	0.000250
60	0.001257	0.000016	0.000098	0.000114	0.000147	0.000180	0.000196	0.000359	0.000000	0.000147
65	0.000986	0.000000	0.000076	0.000095	0.000095	0.000133	0.000152	0.000303	0.000000	0.000133
70	0.000917	0.000000	0.000056	0.000083	0.000111	0.000139	0.000139	0.000278	0.000000	0.000111
75	0.000906	0.000000	0.000091	0.000091	0.000091	0.000136	0.000136	0.000272	0.000000	0.000091
80	0.000405	0.000000	0.000000	0.000081	0.000000	0.000081	0.000081	0.000081	0.000000	0.000081
85	0.000310	0.000000	0.000000	0.000000	0.000000	0.000155	0.000000	0.000155	0.000000	0.000000
gross	0.251565	0.002892	0.029926	0.015202	0.019956	0.021650	0.046538	0.079747	0.000000	0.035653
crude	0.003607	0.000044	0.000449	0.000203	0.000281	0.000287	0.000681	0.001149	0.000000	0.000511
m.age	29.2354	25.9045	26.4580	34.1643	31.2125	34.5898	27.8360	28.4243	0.0000	29.0179

	migration from vienna to								
age	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.008218	0.000458	0.000190	0.005912	0.000524	0.000305	0.000548	0.000203	0.000079	0.000000
5	0.005054	0.000202	0.000077	0.004072	0.000236	0.000140	0.000194	0.000104	0.000030	0.000000
10	0.003680	0.000264	0.000078	0.002641	0.000215	0.000116	0.000212	0.000114	0.000041	0.000000
15	0.012090	0.000625	0.000459	0.007351	0.001107	0.000785	0.000983	0.000545	0.000237	0.000000
20	0.011758	0.000442	0.000560	0.006950	0.001365	0.000950	0.000738	0.000555	0.000199	0.000000
25	0.008234	0.000364	0.000335	0.005252	0.000874	0.000468	0.000494	0.000300	0.000147	0.000000
30	0.004319	0.000254	0.000122	0.003078	0.000282	0.000205	0.000194	0.000129	0.000055	0.000000
35	0.005485	0.000293	0.000128	0.004118	0.000288	0.000216	0.000221	0.000150	0.000070	0.000000
40	0.004677	0.000231	0.000104	0.003544	0.000264	0.000168	0.000219	0.000109	0.000037	0.000000
45	0.002686	0.000108	0.000059	0.002067	0.000144	0.000095	0.000146	0.000040	0.000028	0.000000
50	0.004041	0.000174	0.000100	0.003076	0.000260	0.000119	0.000198	0.000088	0.000026	0.000000
55	0.003816	0.000206	0.000114	0.002823	0.000251	0.000097	0.000228	0.000080	0.000017	0.000000
60	0.002922	0.000124	0.000073	0.002173	0.000208	0.000089	0.000184	0.000059	0.000011	0.000000
65	0.002427	0.000101	0.000059	0.001810	0.000172	0.000076	0.000152	0.000049	0.000007	0.000000
70	0.002040	0.000084	0.000052	0.001521	0.000144	0.000065	0.000129	0.000039	0.000006	0.000000
75	0.001705	0.000068	0.000042	0.001268	0.000121	0.000055	0.000108	0.000036	0.000007	0.000000
80	0.001036	0.000041	0.000030	0.000764	0.000077	0.000036	0.000065	0.000018	0.000006	0.000000
85	0.001019	0.000036	0.000024	0.000771	0.000071	0.000036	0.000059	0.000024	0.000000	0.000000
gross	0.426036	0.020381	0.013022	0.295946	0.033016	0.020101	0.025355	0.013203	0.005011	0.000000
crude	0.005030	0.000238	0.000157	0.003487	0.000397	0.000240	0.000296	0.000156	0.000059	0.000000
m.age	31.8291	30.5542	30.6291	32.6371	30.7449	28.6550	31.0054	28.2814	25.8058	0.0000

Death rates in the four regions.

age	east	south	central	west
0	0.005303	0.005884	0.005322	0.004902
5	0.000409	0.000476	0.000493	0.000530
10	0.000398	0.000426	0.000425	0.000366
15	0.001203	0.001141	0.001048	0.001005
20	0.001182	0.001397	0.001193	0.001119
25	0.001226	0.001442	0.001282	0.001237
30	0.001397	0.001633	0.001356	0.001334
35	0.002317	0.002378	0.002016	0.001920
40	0.003335	0.003274	0.002962	0.002699
45	0.004807	0.004668	0.004284	0.004203
50	0.007574	0.007367	0.006987	0.006592
55	0.010981	0.010852	0.010278	0.009654
60	0.018933	0.018355	0.018224	0.016378
65	0.031798	0.030928	0.030938	0.028454
70	0.051034	0.052148	0.052792	0.047031
75	0.081003	0.083822	0.083278	0.077059
80	0.130246	0.135218	0.138558	0.125810
85	0.233452	0.236310	0.238902	0.223812
gross	2.932991	2.988589	3.001685	2.770522
crude	0.015426	0.011755	0.011054	0.009247
m.age	78.6122	78.5870	78.8779	78.8973

Fertility rates in the four regions.

age	east	south	central	west
0	0.000000	0.000000	0.000000	0.000000
5	0.000000	0.000000	0.000000	0.000000
10	0.000078	0.000098	0.000028	0.000097
15	0.030483	0.027083	0.026228	0.023486
20	0.066579	0.079141	0.079240	0.072911
25	0.046004	0.057432	0.060421	0.068454
30	0.030512	0.038578	0.042038	0.046913
35	0.014373	0.021746	0.022048	0.029041
40	0.004011	0.006966	0.006510	0.009613
45	0.000263	0.000539	0.000526	0.000849
50	0.000000	0.000000	0.000000	0.000000
55	0.000000	0.000000	0.000000	0.000000
60	0.000000	0.000000	0.000000	0.000000
65	0.000000	0.000000	0.000000	0.000000
70	0.000000	0.000000	0.000000	0.000000
75	0.000000	0.000000	0.000000	0.000000
80	0.000000	0.000000	0.000000	0.000000
85	0.000000	0.000000	0.000000	0.000000
gross	0.961521	1.157919	1.185190	1.256816
crude	0.012401	0.015375	0.016188	0.018285
m.age	26.0587	26.8852	26.9935	27.8392

APPENDIX B *Continued.*

Interregional out-migration rates.

	migration from east to				
age	total	east	south	central	west
0	0.001601	0.000000	0.000601	0.000787	0.000212
5	0.000769	0.000000	0.000271	0.000387	0.000111
10	0.001465	0.000000	0.000493	0.000760	0.000213
15	0.004376	0.000000	0.001342	0.002299	0.000734
20	0.003811	0.000000	0.001162	0.002011	0.000637
25	0.002552	0.000000	0.000827	0.001331	0.000394
30	0.001005	0.000000	0.000329	0.000526	0.000149
35	0.001044	0.000000	0.000334	0.000548	0.000162
40	0.000856	0.000000	0.000307	0.000431	0.000119
45	0.000517	0.000000	0.000198	0.000258	0.000061
50	0.000785	0.000000	0.000306	0.000396	0.000083
55	0.000689	0.000000	0.000280	0.000331	0.000078
60	0.000614	0.000000	0.000236	0.000313	0.000065
65	0.000512	0.000000	0.000198	0.000264	0.000050
70	0.000426	0.000000	0.000167	0.000220	0.000040
75	0.000361	0.000000	0.000138	0.000188	0.000035
80	0.000231	0.000000	0.000088	0.000119	0.000024
85	0.000225	0.000000	0.000086	0.000119	0.000020
gross	0.109192	0.000000	0.036823	0.056439	0.015930
crude	0.001345	0.000000	0.000452	0.000695	0.000198
m.age	29.5231	0.0000	30.6380	29.4670	27.1448

	migration from south to				
age	total	east	south	central	west
0	0.002626	0.001174	0.000000	0.000791	0.000662
5	0.001395	0.000663	0.000000	0.000412	0.000320
10	0.004800	0.001759	0.000000	0.001368	0.001672
15	0.012447	0.005623	0.000000	0.002916	0.003908
20	0.007559	0.003401	0.000000	0.002257	0.001901
25	0.005047	0.002355	0.000000	0.001538	0.001154
30	0.001907	0.000833	0.000000	0.000621	0.000453
35	0.001947	0.000880	0.000000	0.000595	0.000472
40	0.001513	0.000771	0.000000	0.000450	0.000293
45	0.000929	0.000483	0.000000	0.000268	0.000178
50	0.001320	0.000675	0.000000	0.000344	0.000300
55	0.001127	0.000640	0.000000	0.000286	0.000201
60	0.000958	0.000533	0.000000	0.000289	0.000137
65	0.000826	0.000462	0.000000	0.000248	0.000117
70	0.000709	0.000395	0.000000	0.000212	0.000101
75	0.000619	0.000341	0.000000	0.000189	0.000089
80	0.000377	0.000213	0.000000	0.000116	0.000048
85	0.000414	0.000217	0.000000	0.000138	0.000059
gross	0.232601	0.107089	0.000000	0.065189	0.060324
crude	0.003234	0.001463	0.000000	0.000898	0.000872
m.age	27.1615	28.6536	0.0000	27.7309	23.8973

	migration from central to				
age	total	east	south	central	west
0	0.001995	0.001124	0.000501	0.000000	0.000370
5	0.001164	0.000569	0.000358	0.000000	0.000237
10	0.002197	0.001080	0.000482	0.000000	0.000635
15	0.008505	0.004644	0.001803	0.000000	0.002058
20	0.005474	0.003135	0.001181	0.000000	0.001159
25	0.003633	0.001923	0.000929	0.000000	0.000781
30	0.001678	0.000881	0.000463	0.000000	0.000334
35	0.001622	0.000820	0.000461	0.000000	0.000342
40	0.001406	0.000840	0.000288	0.000000	0.000278
45	0.000887	0.000545	0.000202	0.000000	0.000139
50	0.001315	0.000751	0.000327	0.000000	0.000237
55	0.001181	0.000713	0.000275	0.000000	0.000193
60	0.001036	0.000621	0.000269	0.000000	0.000146
65	0.000875	0.000528	0.000224	0.000000	0.000123
70	0.000759	0.000454	0.000196	0.000000	0.000109
75	0.000625	0.000379	0.000155	0.000000	0.000092
80	0.000392	0.000246	0.000090	0.000000	0.000056
85	0.000435	0.000252	0.000137	0.000000	0.000046
gross	0.175901	0.097520	0.041711	0.000000	0.036670
crude	0.002372	0.001303	0.000558	0.000000	0.000512
m.age	30.2737	31.0567	30.9772	0.0000	27.3913

	migration from west to				
age	total	east	south	central	west
0	0.002247	0.000569	0.000981	0.000698	0.000000
5	0.000988	0.000257	0.000295	0.000437	0.000000
10	0.001576	0.000419	0.000475	0.000683	0.000000
15	0.007172	0.002472	0.002590	0.002110	0.000000
20	0.006780	0.001941	0.002475	0.002363	0.000000
25	0.004692	0.001329	0.001678	0.001685	0.000000
30	0.002084	0.000595	0.000729	0.000760	0.000000
35	0.001761	0.000514	0.000501	0.000747	0.000000
40	0.001532	0.000543	0.000369	0.000620	0.000000
45	0.000929	0.000362	0.000223	0.000344	0.000000
50	0.001581	0.000416	0.000518	0.000607	0.000000
55	0.001235	0.000438	0.000333	0.000464	0.000000
60	0.000949	0.000308	0.000262	0.000380	0.000000
65	0.000794	0.000260	0.000224	0.000309	0.000000
70	0.000699	0.000239	0.000179	0.000281	0.000000
75	0.000629	0.000191	0.000178	0.000260	0.000000
80	0.000343	0.000123	0.000074	0.000147	0.000000
85	0.000333	0.000095	0.000095	0.000143	0.000000
gross	0.181420	0.055348	0.060892	0.065180	0.000000
crude	0.002527	0.000761	0.000872	0.000894	0.000000
m.age	30.4383	31.1944	28.3705	31.7281	0.0000

Appendix C

RESULTS FROM THE MULTIREGIONAL LIFE TABLE:

1. Calculated age-specific rates of mortality and age- and destination-specific rates of migration associated with each province and with each region
2. Expected number of survivors at exact age x for cohorts born in each province and in each region
3. Geographical distribution of remaining lifetime at age x for cohorts born in each province and in each region
4. Survivorship proportions for cohorts born in each province and in each region

APPENDIX C

Calculated age-specific rates of mortality and age- and destination-specific rates of migration associated with each of the nine provinces.

region burgenl.

age	death	migration from burgenl. to burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.025954	0.946460	0.000245	0.008660	0.000684	0.000386	0.003752	0.000152	0.000421	0.013285
5	0.002102	0.978532	0.000170	0.006159	0.000593	0.000213	0.002244	0.000171	0.000209	0.009608
10	0.001483	0.927435	0.000602	0.015200	0.001199	0.000818	0.006972	0.001091	0.000840	0.044359
15	0.007223	0.876317	0.000821	0.018739	0.002544	0.001431	0.010474	0.001501	0.001617	0.079334
20	0.006510	0.934836	0.000423	0.014805	0.001144	0.001402	0.006688	0.000634	0.000880	0.032677
25	0.008443	0.933124	0.000670	0.014659	0.001763	0.000685	0.006409	0.000515	0.001107	0.032624
30	0.008193	0.969564	0.000122	0.006502	0.000762	0.000182	0.002860	0.000179	0.000288	0.011349
35	0.012986	0.965964	0.000066	0.005422	0.000958	0.000420	0.001829	0.000184	0.000532	0.011639
40	0.019446	0.962588	0.000270	0.004209	0.000438	0.000113	0.002450	0.000271	0.000109	0.010106
45	0.025826	0.964659	0.000052	0.002542	0.000206	0.000053	0.001316	0.000001	0.000152	0.005193
50	0.040526	0.944021	0.000166	0.003833	0.000333	0.000085	0.002425	0.000165	0.000082	0.008364
55	0.055591	0.934240	0.000066	0.003568	0.000197	0.000193	0.000828	0.000129	0.000064	0.005124
60	0.097366	0.893966	0.000116	0.002912	0.000232	0.000116	0.000913	0.000173	0.000115	0.004092
65	0.154532	0.837963	0.000126	0.002565	0.000190	0.000064	0.000814	0.000064	0.000063	0.003618
70	0.232286	0.762585	0.000072	0.001712	0.000143	0.000001	0.000568	0.000072	0.000072	0.002489
75	0.352203	0.644168	0.000000	0.001244	0.000104	0.000000	0.000412	0.000000	0.000000	0.001868
80	0.522628	0.475653	0.000000	0.000684	0.000000	0.000000	0.000170	0.000000	0.000000	0.000865
85	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

region carinth.

age	death	migration from carinth. to burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.030594	0.000335	0.953614	0.001133	0.001740	0.001892	0.004333	0.002356	0.001952	0.002051
5	0.002378	0.000295	0.987936	0.000898	0.000968	0.000866	0.002652	0.001613	0.001042	0.001353
10	0.002143	0.000177	0.966226	0.001771	0.001623	0.005744	0.006032	0.007644	0.003885	0.004755
15	0.005771	0.000413	0.901199	0.003661	0.003847	0.009744	0.024699	0.014331	0.010265	0.026071
20	0.006857	0.000387	0.942190	0.003448	0.004245	0.006882	0.011800	0.007232	0.004311	0.012650
25	0.006968	0.000232	0.960171	0.002234	0.002945	0.004553	0.008006	0.005162	0.002469	0.006661
30	0.008513	0.000118	0.978706	0.000859	0.001293	0.001774	0.003548	0.002271	0.001165	0.001752
35	0.011248	0.000141	0.975822	0.000785	0.001441	0.001707	0.003168	0.002825	0.001049	0.001813
40	0.016534	0.000149	0.974247	0.001015	0.000688	0.001271	0.002394	0.001480	0.000771	0.001451
45	0.022979	0.000087	0.970890	0.000467	0.000321	0.000779	0.001934	0.001013	0.000376	0.001155
50	0.034991	0.000002	0.955948	0.000504	0.000579	0.001064	0.003148	0.001395	0.000533	0.001836
55	0.051945	0.000035	0.941430	0.000828	0.000415	0.000687	0.001950	0.001098	0.000379	0.001232
60	0.083619	0.000065	0.910204	0.000653	0.000490	0.000617	0.002107	0.000783	0.000294	0.001167
65	0.136985	0.000001	0.857980	0.000549	0.000365	0.000513	0.001745	0.000623	0.000257	0.000982
70	0.226427	0.000000	0.769714	0.000410	0.000272	0.000409	0.001310	0.000503	0.000183	0.000771
75	0.344705	0.000000	0.652024	0.000393	0.000260	0.000329	0.001105	0.000396	0.000198	0.000590
80	0.484807	0.000000	0.513633	0.000195	0.000096	0.000195	0.000482	0.000198	0.000098	0.000296
85	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

region lower a.

age	death	migration from lower a. to burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.025999	0.001498	0.000599	0.945671	0.003418	0.000739	0.001568	0.000594	0.000249	0.019666
5	0.001951	0.000859	0.000258	0.980839	0.001741	0.000435	0.000890	0.000315	0.000185	0.012527
10	0.002197	0.000890	0.000409	0.955727	0.004375	0.001112	0.001548	0.000742	0.000327	0.032673
15	0.006572	0.002808	0.000985	0.885821	0.010391	0.003469	0.004158	0.002575	0.001073	0.082149
20	0.007300	0.002051	0.001186	0.922106	0.007213	0.002423	0.003433	0.001978	0.000848	0.051461
25	0.007414	0.001822	0.000878	0.942819	0.005637	0.001440	0.002694	0.001086	0.000500	0.035711
30	0.007583	0.000917	0.000394	0.971794	0.002637	0.000494	0.001060	0.000427	0.000161	0.014532
35	0.013029	0.000868	0.000315	0.964363	0.002527	0.000651	0.001205	0.000427	0.000103	0.016511
40	0.016884	0.000636	0.000304	0.964117	0.001952	0.000473	0.000852	0.000305	0.000180	0.014297
45	0.023422	0.000401	0.000207	0.963957	0.001184	0.000403	0.000631	0.000240	0.000044	0.009510
50	0.036089	0.000633	0.000312	0.944983	0.002013	0.000284	0.000994	0.000128	0.000094	0.014469
55	0.053945	0.000615	0.000292	0.931882	0.001387	0.000293	0.000714	0.000171	0.000109	0.010591
60	0.090589	0.000470	0.000170	0.898057	0.001353	0.000369	0.000767	0.000170	0.000095	0.007960
65	0.148044	0.000362	0.000141	0.842936	0.001080	0.000303	0.000611	0.000130	0.000065	0.006330
70	0.226844	0.000266	0.000102	0.766300	0.000833	0.000217	0.000469	0.000090	0.000039	0.004841
75	0.340185	0.000190	0.000070	0.654611	0.000623	0.000176	0.000347	0.000071	0.000035	0.003692
80	0.500412	0.000101	0.000052	0.496821	0.000330	0.000077	0.000179	0.000053	0.000026	0.001949
85	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

region upper a.

age	death	migration from upper a. to burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.026819	0.000209	0.000346	0.003474	0.961142	0.003566	0.001169	0.000839	0.000378	0.002057
5	0.002602	0.000076	0.000252	0.001658	0.990557	0.001881	0.001066	0.000584	0.000176	0.001149
10	0.001992	0.000056	0.000393	0.002289	0.981817	0.006561	0.001444	0.001833	0.000396	0.003219
15	0.005102	0.000270	0.001002	0.005951	0.942520	0.015457	0.005637	0.006572	0.001047	0.016443
20	0.005945	0.000239	0.001103	0.005928	0.962596	0.008558	0.003038	0.002810	0.000970	0.008813
25	0.006629	0.000216	0.000803	0.004987	0.971432	0.006317	0.002344	0.002173	0.000571	0.004528
30	0.006899	0.000110	0.000401	0.002477	0.982662	0.003017	0.001254	0.000917	0.000243	0.002019
35	0.009761	0.000072	0.000422	0.001725	0.980988	0.002557	0.001216	0.000661	0.000476	0.002121
40	0.014732	0.000081	0.000359	0.002002	0.976770	0.002123	0.000849	0.000796	0.000134	0.002155
45	0.021175	0.000128	0.000370	0.000884	0.973658	0.001539	0.000537	0.000206	0.000064	0.001440
50	0.034351	0.000089	0.000248	0.001500	0.958164	0.002174	0.000900	0.000461	0.000124	0.001987
55	0.051278	0.000047	0.000245	0.001758	0.941218	0.002300	0.000849	0.000472	0.000183	0.001650
60	0.087535	0.000071	0.000229	0.001393	0.906324	0.001773	0.000867	0.000273	0.000115	0.001420
65	0.146903	0.000060	0.000167	0.001113	0.848228	0.001405	0.000677	0.000228	0.000091	0.001128
70	0.236228	0.000037	0.000148	0.000868	0.759929	0.001107	0.000534	0.000168	0.000093	0.000887
75	0.349034	0.000050	0.000101	0.000633	0.648176	0.000788	0.000378	0.000128	0.000051	0.000661
80	0.518954	0.000000	0.000041	0.000322	0.479633	0.000402	0.000199	0.000041	0.000040	0.000366
85	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

APPENDIX C *Continued.*

region salzburg

age	death	migration from salzburg to							
		burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.024641	0.000213	0.001794	0.001833	0.007872	0.954405	0.003276	0.002842	0.000630	0.002493
5	0.002015	0.000002	0.001448	0.001484	0.004553	0.985078	0.001763	0.002097	0.000391	0.001168
10	0.002541	0.000061	0.001554	0.001917	0.005860	0.976591	0.002588	0.005406	0.000783	0.002698
15	0.005637	0.000198	0.004016	0.003646	0.021247	0.918114	0.011173	0.015627	0.001958	0.018382
20	0.005940	0.000349	0.003943	0.003820	0.016124	0.940925	0.006201	0.008477	0.002229	0.011989
25	0.005771	0.000274	0.003071	0.002902	0.011961	0.958809	0.005073	0.005567	0.001017	0.005555
30	0.006362	0.000176	0.001704	0.001101	0.007293	0.975563	0.002403	0.002503	0.000560	0.002336
35	0.010891	0.000092	0.002035	0.001440	0.005139	0.971898	0.002216	0.002747	0.000669	0.002874
40	0.014616	0.000002	0.000738	0.001448	0.005033	0.971853	0.001313	0.002170	0.000535	0.002292
45	0.021267	0.000080	0.000478	0.001082	0.003740	0.968497	0.000758	0.001752	0.000200	0.002146
50	0.034315	0.000054	0.001004	0.000864	0.004537	0.951789	0.001849	0.002271	0.000529	0.002787
55	0.046533	0.000139	0.000971	0.001028	0.004197	0.942512	0.000972	0.001572	0.000141	0.001936
60	0.085953	0.000088	0.000574	0.001018	0.003211	0.905008	0.001058	0.001283	0.000266	0.001540
65	0.133037	0.000048	0.000480	0.000862	0.002479	0.859790	0.000860	0.001009	0.000193	0.001241
70	0.223022	0.000061	0.000367	0.000675	0.001944	0.771295	0.000671	0.000801	0.000186	0.000979
75	0.329257	0.000000	0.000264	0.000442	0.001490	0.666597	0.000440	0.000623	0.000178	0.000708
80	0.499353	0.000000	0.000140	0.000277	0.000682	0.498572	0.000137	0.000282	0.000139	0.000419
85	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

region styria

age	death	migration from styria to							
		burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.028217	0.001005	0.002638	0.002599	0.002023	0.001882	0.955912	0.001426	0.001243	0.003057
5	0.002373	0.000452	0.001240	0.001614	0.001164	0.000978	0.989503	0.000574	0.000527	0.001576
10	0.002118	0.000551	0.002595	0.003943	0.002758	0.003660	0.972605	0.003458	0.003178	0.005135
15	0.005623	0.001596	0.005785	0.006555	0.006217	0.007915	0.933140	0.008889	0.006824	0.017456
20	0.006972	0.001520	0.005235	0.004406	0.005457	0.005451	0.952128	0.004879	0.003291	0.010661
25	0.007257	0.001578	0.004474	0.003950	0.004142	0.003402	0.963402	0.003002	0.001781	0.007012
30	0.007954	0.000656	0.001785	0.001785	0.001657	0.001407	0.980776	0.001056	0.000648	0.002277
35	0.012062	0.000559	0.001831	0.002041	0.001585	0.001243	0.976621	0.001021	0.000624	0.002413
40	0.016099	0.000450	0.001075	0.001421	0.001372	0.000943	0.975149	0.000693	0.000373	0.002425
45	0.023106	0.000300	0.000726	0.000745	0.000717	0.000676	0.971499	0.000415	0.000226	0.001589
50	0.036608	0.000385	0.001231	0.001066	0.000674	0.000984	0.955581	0.000742	0.000493	0.002176
55	0.053195	0.000377	0.001467	0.001443	0.000758	0.000699	0.939733	0.000337	0.000394	0.001597
60	0.089475	0.000230	0.000926	0.000929	0.000858	0.000545	0.905107	0.000261	0.000178	0.001493
65	0.146171	0.000189	0.000747	0.000761	0.000686	0.000455	0.849426	0.000206	0.000147	0.001210
70	0.232315	0.000159	0.000586	0.000589	0.000531	0.000356	0.764234	0.000180	0.000108	0.000942
75	0.347159	0.000098	0.000444	0.000447	0.000394	0.000274	0.650287	0.000125	0.000075	0.000696
80	0.513153	0.000037	0.000189	0.000225	0.000185	0.000150	0.485606	0.000038	0.000038	0.000379
85	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

region tyrol

age	death	migration from tyrol to burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.023315	0.000113	0.002022	0.001119	0.002003	0.002170	0.001578	0.964436	0.001552	0.001693
5	0.002593	0.000090	0.000895	0.000560	0.001221	0.001464	0.000522	0.990561	0.001538	0.000556
10	0.001954	0.000022	0.001524	0.000589	0.001606	0.002716	0.001042	0.985835	0.003363	0.001348
15	0.005242	0.000251	0.004762	0.002480	0.004743	0.007113	0.006365	0.952718	0.007212	0.009113
20	0.005705	0.000213	0.004426	0.002391	0.006682	0.006620	0.004931	0.955508	0.006271	0.007263
25	0.006352	0.000280	0.003661	0.002428	0.004417	0.005257	0.002796	0.967162	0.003478	0.004169
30	0.006613	0.000080	0.001889	0.000794	0.002236	0.002197	0.001380	0.980466	0.002247	0.002098
35	0.009585	0.000067	0.001308	0.000576	0.002361	0.002249	0.001019	0.979309	0.001569	0.001956
40	0.013572	0.000064	0.000851	0.000865	0.001865	0.001919	0.000854	0.976798	0.001387	0.001825
45	0.019821	0.000001	0.000585	0.000525	0.000913	0.001039	0.000457	0.974743	0.000617	0.001299
50	0.031755	0.000088	0.000920	0.000534	0.001275	0.002442	0.001272	0.959352	0.001093	0.001269
55	0.048554	0.000037	0.000896	0.000548	0.001328	0.001219	0.000540	0.944088	0.001184	0.001606
60	0.078805	0.000068	0.000617	0.000449	0.000823	0.001026	0.000515	0.916055	0.000687	0.000956
65	0.133389	0.000038	0.000540	0.000348	0.000653	0.000849	0.000423	0.862335	0.000618	0.000805
70	0.211785	0.000000	0.000389	0.000342	0.000484	0.000681	0.000291	0.784858	0.000491	0.000680
75	0.324086	0.000000	0.000338	0.000205	0.000406	0.000546	0.000203	0.673395	0.000343	0.000477
80	0.471038	0.000000	0.000102	0.000101	0.000199	0.000302	0.000100	0.527752	0.000202	0.000204
85	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

region vorarlb.

age	death	migration from vorarlb. to burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.025977	0.000212	0.002778	0.001164	0.001024	0.000844	0.004100	0.003000	0.959812	0.001089
5	0.002743	0.000241	0.000863	0.000355	0.000659	0.000519	0.000692	0.002724	0.990378	0.000826
10	0.001594	0.000119	0.000924	0.000573	0.000655	0.000898	0.000969	0.006971	0.985628	0.001669
15	0.004609	0.000448	0.005397	0.002030	0.003034	0.004126	0.009287	0.024603	0.935946	0.010520
20	0.005365	0.000488	0.006726	0.002324	0.003974	0.003956	0.010308	0.009451	0.951157	0.006250
25	0.005814	0.000301	0.004375	0.002208	0.002907	0.002537	0.007170	0.006393	0.964830	0.003465
30	0.006729	0.000100	0.001806	0.000989	0.001377	0.001078	0.002393	0.003752	0.979965	0.001811
35	0.009517	0.000419	0.001024	0.000615	0.000912	0.001024	0.001685	0.003066	0.980351	0.001386
40	0.013108	0.000364	0.000914	0.000502	0.001100	0.000490	0.001098	0.001767	0.979017	0.001641
45	0.022782	0.000066	0.000592	0.000465	0.000726	0.000396	0.000593	0.001777	0.971486	0.001117
50	0.034037	0.000001	0.001131	0.001032	0.000622	0.000416	0.002056	0.003494	0.955973	0.001237
55	0.044033	0.000001	0.000712	0.000638	0.000557	0.000871	0.001184	0.002921	0.947900	0.001183
60	0.078434	0.000075	0.000449	0.000525	0.000674	0.000821	0.000896	0.001649	0.915804	0.000673
65	0.131665	0.000000	0.000329	0.000410	0.000410	0.000576	0.000655	0.001317	0.864065	0.000573
70	0.207393	0.000000	0.000221	0.000332	0.000439	0.000551	0.000549	0.001110	0.788964	0.000441
75	0.320743	0.000000	0.000314	0.000316	0.000314	0.000475	0.000471	0.000953	0.676097	0.000317
80	0.495579	0.000000	0.000000	0.000228	0.000000	0.000228	0.000228	0.000233	0.503274	0.000231
85	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

APPENDIX C *Continued.*

region vienna

age	death	migration from vienna to burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.026430	0.002180	0.000912	0.027833	0.002543	0.001463	0.002624	0.000979	0.000380	0.934656
5	0.002155	0.000995	0.000380	0.019896	0.001180	0.000694	0.000962	0.000517	0.000149	0.973073
10	0.001836	0.001264	0.000383	0.012800	0.001086	0.000584	0.001052	0.000571	0.000210	0.980215
15	0.004583	0.002894	0.002165	0.033640	0.005464	0.003790	0.004768	0.002722	0.001175	0.938800
20	0.004596	0.002113	0.002687	0.032432	0.006676	0.004567	0.003606	0.002714	0.000986	0.939622
25	0.005082	0.001748	0.001630	0.024969	0.004311	0.002283	0.002433	0.001479	0.000722	0.955342
30	0.006260	0.001242	0.000600	0.014975	0.001407	0.001005	0.000962	0.000636	0.000270	0.972642
35	0.009711	0.001425	0.000627	0.019864	0.001434	0.001055	0.001088	0.000739	0.000345	0.963713
40	0.015671	0.001120	0.000510	0.017073	0.001302	0.000819	0.001072	0.000531	0.000182	0.961720
45	0.023652	0.000521	0.000287	0.009963	0.000705	0.000464	0.000710	0.000196	0.000135	0.963368
50	0.037471	0.000826	0.000479	0.014534	0.001252	0.000570	0.000950	0.000422	0.000126	0.943369
55	0.052765	0.000964	0.000538	0.013155	0.001185	0.000460	0.001074	0.000380	0.000081	0.929399
60	0.089359	0.000560	0.000333	0.009783	0.000950	0.000406	0.000839	0.000269	0.000051	0.897450
65	0.145927	0.000431	0.000254	0.007690	0.000739	0.000328	0.000651	0.000211	0.000030	0.843740
70	0.225233	0.000328	0.000202	0.005935	0.000564	0.000254	0.000505	0.000153	0.000026	0.766801
75	0.332975	0.000234	0.000146	0.004357	0.000415	0.000193	0.000370	0.000125	0.000023	0.661163
80	0.482227	0.000116	0.000085	0.002165	0.000216	0.000101	0.000184	0.000051	0.000017	0.514839
85	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

Calculated age-specific rates of mortality and age- and destination-specific rates of migration associated with each of the four regions.

region east

age	death	migration from east	migration from south	migration from central	east to west
0	0.026173	0.966087	0.002902	0.003807	0.001031
5	0.002045	0.994131	0.001348	0.001923	0.000553
10	0.001990	0.990747	0.002426	0.003767	0.001070
15	0.005990	0.972730	0.006475	0.011139	0.003666
20	0.005895	0.975482	0.005661	0.009820	0.003141
25	0.006116	0.981347	0.004055	0.006536	0.001945
30	0.006959	0.988076	0.001626	0.002599	0.000740
35	0.011515	0.983347	0.001644	0.002694	0.000800
40	0.016532	0.979271	0.001502	0.002110	0.000585
45	0.023747	0.973733	0.000965	0.001258	0.000297
50	0.037160	0.959071	0.001469	0.001902	0.000398
55	0.053434	0.943307	0.001323	0.001565	0.000370
60	0.090382	0.906823	0.001073	0.001424	0.000297
65	0.147277	0.850523	0.000850	0.001133	0.000216
70	0.226300	0.772030	0.000652	0.000859	0.000158
75	0.336815	0.661943	0.000473	0.000646	0.000123
80	0.491272	0.508078	0.000249	0.000333	0.000068
85	1.000000	0.000000	0.000000	0.000000	0.000000

region south

age	death	migration from east	migration from south	migration from central	south to west
0	0.028973	0.005663	0.958355	0.003820	0.003189
5	0.002375	0.003295	0.990693	0.002046	0.001591
10	0.002126	0.008668	0.974237	0.006740	0.008230
15	0.005684	0.027095	0.934559	0.014023	0.018640
20	0.006941	0.016558	0.956335	0.010993	0.009173
25	0.007172	0.011535	0.968136	0.007538	0.005619
30	0.008124	0.004116	0.982466	0.003066	0.002228
35	0.011816	0.004324	0.978614	0.002927	0.002319
40	0.016234	0.003775	0.976352	0.002206	0.001433
45	0.023067	0.002354	0.972407	0.001305	0.000867
50	0.036164	0.003242	0.957497	0.001655	0.001442
55	0.052824	0.003024	0.941848	0.001351	0.000952
60	0.087747	0.002426	0.907885	0.001315	0.000627
65	0.143545	0.001980	0.852906	0.001065	0.000504
70	0.230659	0.001547	0.766566	0.000828	0.000400
75	0.346486	0.001170	0.651390	0.000645	0.000308
80	0.505277	0.000599	0.493666	0.000322	0.000137
85	1.000000	0.000000	0.000000	0.000000	0.000000

region central

age	death	migration from east	migration from south	migration from central	central to west
0	0.026264	0.005434	0.002422	0.964088	0.001792
5	0.002459	0.002827	0.001777	0.991757	0.001180
10	0.002120	0.005355	0.002373	0.987002	0.003150
15	0.005238	0.022548	0.008653	0.953586	0.009975
20	0.005946	0.015302	0.005758	0.967354	0.005640
25	0.006388	0.009451	0.004550	0.975789	0.003821
30	0.006761	0.004351	0.002284	0.984955	0.001648
35	0.010032	0.004034	0.002263	0.981988	0.001682
40	0.014704	0.004117	0.001413	0.978403	0.001363
45	0.021198	0.002659	0.000987	0.974479	0.000677
50	0.034343	0.003609	0.001574	0.959336	0.001138
55	0.050109	0.003368	0.001303	0.944304	0.000916
60	0.087150	0.002826	0.001227	0.908127	0.000670
65	0.143587	0.002265	0.000963	0.852654	0.000530
70	0.233169	0.001774	0.000765	0.763863	0.000430
75	0.344630	0.001301	0.000529	0.653222	0.000318
80	0.514536	0.000690	0.000249	0.484367	0.000158
85	1.000000	0.000000	0.000000	0.000000	0.000000

region west

age	death	migration from east	migration from south	migration from central	west to west
0	0.024230	0.002769	0.004726	0.003381	0.964894
5	0.002645	0.001280	0.001463	0.002171	0.992440
10	0.001831	0.002095	0.002338	0.003387	0.990350
15	0.005026	0.012235	0.012361	0.010255	0.960123
20	0.005593	0.009592	0.011932	0.011511	0.961372
25	0.006172	0.006576	0.008168	0.008253	0.970831
30	0.006653	0.002948	0.003590	0.003749	0.983059
35	0.009562	0.002536	0.002460	0.003672	0.981770
40	0.013414	0.002670	0.001809	0.003037	0.979070
45	0.020801	0.001766	0.001089	0.001678	0.974666
50	0.032436	0.002004	0.002488	0.002920	0.960152
55	0.047145	0.002076	0.001579	0.002197	0.947004
60	0.078690	0.001410	0.001198	0.001737	0.916965
65	0.132843	0.001126	0.000969	0.001335	0.863728
70	0.210445	0.000946	0.000707	0.001108	0.786794
75	0.323083	0.000667	0.000615	0.000899	0.674736
80	0.478554	0.000352	0.000209	0.000415	0.520470
85	1.000000	0.000000	0.000000	0.000000	0.000000

APPENDIX C *Continued.*

Expected number of survivors at exact age x for cohorts born in each province.

age	initial region of cohort	burgenl.							
	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	100000.	100000.	0.	0.	0.	0.	0.	0.	0.	0.
5	97405.	94646.	24.	866.	68.	39.	375.	15.	42.	1329.
10	97200.	92616.	42.	1460.	128.	60.	586.	33.	62.	2214.
15	97053.	85900.	99.	2834.	247.	141.	1221.	139.	142.	6330.
20	96374.	75304.	186.	4344.	528.	302.	2089.	305.	293.	13023.
25	95768.	70437.	263.	5558.	733.	480.	2564.	402.	373.	14958.
30	95024.	65768.	346.	6664.	952.	568.	2983.	469.	459.	16815.
35	94286.	63795.	368.	7165.	1038.	596.	3143.	493.	478.	17211.
40	93129.	61657.	384.	7607.	1132.	637.	3218.	518.	513.	17461.
45	91430.	59376.	408.	7901.	1180.	652.	3318.	541.	516.	17539.
50	89150.	57291.	409.	7947.	1189.	651.	3322.	536.	515.	17290.
55	85659.	54105.	418.	7987.	1202.	644.	3343.	539.	503.	16918.
60	80989.	50570.	415.	7867.	1180.	634.	3213.	529.	485.	16096.
65	73354.	45221.	394.	7376.	1113.	594.	2978.	502.	453.	14724.
70	62267.	37904.	352.	6451.	975.	525.	2583.	442.	396.	12640.
75	47949.	28911.	279.	5087.	762.	412.	2006.	354.	316.	9823.
80	31356.	18627.	185.	3410.	506.	279.	1323.	241.	215.	6570.
85	15356.	8861.	96.	1722.	246.	141.	648.	128.	108.	3406.

age	initial region of cohort	carinth.							
	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	100000.	0.	100000.	0.	0.	0.	0.	0.	0.	0.
5	96941.	34.	95361.	113.	174.	189.	433.	236.	195.	205.
10	96710.	61.	94212.	202.	267.	270.	683.	389.	294.	332.
15	96503.	75.	91034.	370.	421.	811.	1235.	1110.	659.	789.
20	95949.	109.	82061.	706.	787.	1663.	3432.	2408.	1571.	3210.
25	95305.	149.	77373.	1076.	1201.	2194.	4291.	2952.	1883.	4185.
30	94654.	176.	74392.	1334.	1481.	2509.	4803.	3302.	2033.	4624.
35	93880.	190.	72835.	1450.	1598.	2606.	4999.	3430.	2092.	4679.
40	92837.	206.	71099.	1570.	1715.	2683.	5134.	3589.	2140.	4700.
45	91333.	219.	69284.	1686.	1762.	2719.	5194.	3629.	2160.	4680.
50	89249.	222.	67278.	1716.	1762.	2701.	5191.	3619.	2129.	4630.
55	86119.	218.	64332.	1738.	1759.	2664.	5194.	3587.	2080.	4547.
60	81676.	214.	60582.	1750.	1711.	2572.	5021.	3472.	2004.	4350.
65	74791.	200.	55154.	1667.	1604.	2378.	4686.	3238.	1858.	4008.
70	64460.	171.	47329.	1476.	1397.	2083.	4086.	2833.	1623.	3461.
75	49909.	133.	36436.	1178.	1086.	1633.	3191.	2253.	1291.	2708.
80	32831.	87.	23761.	801.	720.	1105.	2119.	1535.	882.	1822.
85	16814.	42.	12205.	408.	350.	557.	1042.	815.	447.	949.

age	initial region of cohort lower a.								
	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	100000.	0.	0.	100000.	0.	0.	0.	0.	0.	0.
5	97400.	150.	60.	94567.	342.	74.	157.	59.	25.	1967.
10	97209.	230.	85.	92796.	506.	116.	242.	90.	43.	3101.
15	96997.	300.	122.	88734.	908.	224.	386.	163.	75.	6085.
20	96374.	531.	216.	78822.	1821.	556.	774.	417.	180.	13057.
25	95711.	687.	344.	73132.	2427.	800.	1073.	607.	260.	16380.
30	95043.	806.	434.	69391.	2860.	934.	1291.	708.	307.	18311.
35	94349.	869.	471.	67725.	3031.	977.	1369.	744.	321.	18842.
40	93201.	927.	499.	65701.	3183.	1027.	1449.	780.	334.	19302.
45	91662.	957.	521.	63688.	3272.	1055.	1499.	800.	345.	19527.
50	89522.	960.	528.	61595.	3281.	1064.	1515.	803.	342.	19434.
55	86272.	962.	539.	58501.	3300.	1053.	1538.	793.	338.	19247.
60	81665.	954.	540.	54783.	3217.	1029.	1515.	772.	331.	18525.
65	74317.	890.	510.	49390.	3013.	967.	1435.	725.	311.	17076.
70	63387.	771.	452.	41772.	2626.	858.	1265.	638.	274.	14731.
75	49014.	605.	357.	32103.	2042.	678.	997.	509.	219.	11505.
80	32409.	398.	237.	21068.	1350.	462.	666.	347.	150.	7729.
85	16305.	193.	124.	10485.	657.	234.	329.	185.	76.	4022.

age	initial region of cohort upper a.								
	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	100000.	0.	0.	0.	100000.	0.	0.	0.	0.	0.
5	97318.	21.	35.	347.	96114.	357.	117.	84.	38.	206.
10	97065.	28.	59.	505.	95209.	533.	219.	140.	55.	316.
15	96872.	33.	97.	707.	93485.	1147.	354.	318.	94.	637.
20	96376.	59.	191.	1213.	88151.	2510.	882.	946.	195.	2230.
25	95803.	86.	305.	1731.	84931.	3142.	1145.	1189.	290.	2986.
30	95174.	110.	388.	2149.	82576.	3571.	1338.	1365.	341.	3335.
35	94518.	123.	428.	2352.	81188.	3743.	1434.	1430.	362.	3459.
40	93580.	133.	467.	2487.	79681.	3857.	1518.	1471.	401.	3564.
45	92192.	141.	492.	2629.	77864.	3926.	1562.	1514.	410.	3653.
50	90221.	150.	512.	2646.	75837.	3928.	1569.	1502.	406.	3671.
55	87105.	154.	519.	2675.	72695.	3913.	1585.	1490.	403.	3671.
60	82647.	154.	517.	2677.	68450.	3861.	1564.	1451.	399.	3574.
65	75418.	147.	493.	2541.	62061.	3621.	1486.	1356.	376.	3338.
70	64418.	129.	438.	2242.	52658.	3205.	1313.	1189.	333.	2911.
75	49345.	103.	348.	1785.	40028.	2533.	1037.	946.	269.	2296.
80	32259.	69.	233.	1206.	25952.	1722.	693.	645.	185.	1554.
85	15678.	33.	121.	612.	12450.	870.	343.	342.	95.	813.

APPENDIX C *Continued.*

age initial region of cohort salzburg

	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	100000.	0.	0.	0.	0.	100000.	0.	0.	0.	0.
5	97536.	21.	179.	183.	787.	95441.	328.	284.	63.	249.
10	97338.	22.	317.	329.	1216.	94019.	494.	483.	101.	358.
15	97093.	27.	455.	505.	1749.	91832.	729.	992.	178.	626.
20	96547.	47.	792.	823.	3620.	84361.	1741.	2412.	366.	2383.
25	95974.	85.	1113.	1198.	4897.	79454.	2229.	3056.	567.	3375.
30	95410.	115.	1347.	1490.	5757.	76252.	2595.	3431.	652.	3771.
35	94790.	134.	1466.	1612.	6237.	74425.	2752.	3571.	695.	3897.
40	93767.	146.	1598.	1760.	6526.	72369.	2876.	3719.	744.	4028.
45	92385.	149.	1622.	1894.	6761.	70362.	2919.	3803.	777.	4098.
50	90402.	154.	1617.	1954.	6858.	68166.	2903.	3837.	773.	4140.
55	87284.	156.	1627.	1983.	6897.	64912.	2924.	3848.	784.	4154.
60	83114.	161.	1607.	1990.	6780.	61207.	2829.	3745.	760.	4033.
65	75961.	154.	1507.	1905.	6355.	55414.	2642.	3516.	717.	3750.
70	65646.	135.	1326.	1694.	5538.	47661.	2305.	3093.	634.	3261.
75	50936.	108.	1042.	1358.	4308.	36772.	1802.	2469.	512.	2566.
80	34022.	71.	692.	921.	2851.	24518.	1193.	1688.	354.	1734.
85	17047.	34.	360.	470.	1385.	12227.	584.	898.	182.	907.

age initial region of cohort styria

	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	100000.	0.	0.	0.	0.	0.	100000.	0.	0.	0.
5	97178.	100.	264.	260.	202.	188.	95591.	143.	124.	306.
10	96948.	142.	380.	417.	314.	280.	94590.	198.	174.	453.
15	96743.	185.	614.	781.	574.	625.	92005.	529.	475.	954.
20	96200.	315.	1097.	1341.	1147.	1330.	85896.	1361.	1087.	2627.
25	95541.	435.	1512.	1726.	1640.	1766.	81843.	1762.	1338.	3520.
30	94862.	547.	1845.	2069.	1995.	2012.	78903.	1987.	1453.	4052.
35	94124.	590.	1961.	2228.	2126.	2094.	77414.	2051.	1485.	4176.
40	93013.	622.	2068.	2403.	2240.	2153.	75630.	2109.	1513.	4275.
45	91529.	640.	2104.	2512.	2320.	2180.	73772.	2128.	1517.	4355.
50	89426.	648.	2102.	2528.	2330.	2173.	71684.	2116.	1494.	4354.
55	86170.	641.	2107.	2541.	2306.	2155.	68526.	2099.	1469.	4325.
60	81630.	631.	2093.	2536.	2245.	2092.	64415.	2018.	1424.	4175.
65	74380.	583.	1970.	2388.	2108.	1940.	58319.	1875.	1319.	3877.
70	63584.	503.	1738.	2095.	1841.	1703.	49550.	1635.	1151.	3368.
75	48929.	393.	1370.	1660.	1434.	1337.	37877.	1297.	915.	2647.
80	32069.	258.	912.	1118.	950.	905.	24636.	881.	623.	1787.
85	15761.	124.	473.	566.	462.	456.	11965.	467.	315.	933.

age	initial region of cohort	tyrol							
	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	100000.	0.	0.	0.	0.	0.	0.	100000.	0.	0.
5	97669.	11.	202.	112.	200.	217.	158.	96444.	155.	169.
10	97416.	20.	287.	168.	318.	356.	208.	95535.	302.	221.
15	97225.	21.	424.	223.	470.	612.	306.	94189.	622.	357.
20	96715.	45.	840.	454.	912.	1251.	914.	89774.	1270.	1255.
25	96162.	68.	1212.	694.	1524.	1801.	1352.	85820.	1783.	1907.
30	95552.	96.	1503.	936.	1907.	2208.	1585.	83041.	2029.	2247.
35	94915.	105.	1641.	1023.	2089.	2352.	1690.	81440.	2180.	2393.
40	93991.	114.	1720.	1095.	2267.	2485.	1754.	79778.	2271.	2505.
45	92692.	120.	1752.	1182.	2387.	2580.	1795.	77944.	2339.	2593.
50	90814.	119.	1753.	1214.	2412.	2589.	1790.	75988.	2322.	2627.
55	87876.	123.	1755.	1238.	2429.	2661.	1828.	72919.	2307.	2616.
60	83586.	122.	1727.	1241.	2403.	2609.	1772.	68858.	2276.	2579.
65	76889.	117.	1620.	1181.	2251.	2441.	1653.	63088.	2133.	2404.
70	66530.	103.	1428.	1044.	1962.	2160.	1441.	54411.	1884.	2098.
75	52279.	80.	1123.	836.	1525.	1708.	1124.	42710.	1514.	1658.
80	35215.	52.	749.	567.	1011.	1165.	744.	28765.	1039.	1124.
85	18447.	25.	388.	288.	492.	591.	365.	15181.	529.	587.

age	initial region of cohort	vorarlb.							
	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	100000.	0.	0.	0.	0.	0.	0.	0.	100000.	0.
5	97402.	21.	278.	116.	102.	84.	410.	300.	95981.	109.
10	97136.	44.	358.	152.	167.	134.	474.	560.	95059.	188.
15	96980.	53.	437.	206.	230.	223.	557.	1220.	93698.	356.
20	96530.	92.	910.	396.	521.	615.	1415.	3485.	87714.	1381.
25	96007.	136.	1478.	639.	907.	974.	2292.	4184.	83464.	1933.
30	95441.	162.	1818.	866.	1180.	1194.	2844.	4606.	80555.	2216.
35	94793.	171.	1943.	970.	1302.	1275.	3003.	4831.	78957.	2340.
40	93873.	205.	1993.	1046.	1381.	1344.	3085.	4988.	77419.	2409.
45	92608.	231.	2023.	1105.	1461.	1365.	3110.	5020.	75806.	2487.
50	90513.	231.	2017.	1135.	1493.	1365.	3077.	5035.	73650.	2511.
55	87420.	223.	2023.	1196.	1498.	1352.	3112.	5098.	70417.	2502.
60	83454.	213.	1967.	1206.	1469.	1350.	3021.	5026.	66757.	2443.
65	76793.	199.	1829.	1152.	1393.	1289.	2807.	4719.	61141.	2264.
70	66549.	169.	1595.	1022.	1218.	1153.	2434.	4154.	52835.	1965.
75	52522.	130.	1244.	818.	957.	925.	1895.	3322.	41688.	1544.
80	35511.	85.	827.	558.	638.	640.	1256.	2278.	28187.	1042.
85	17947.	41.	425.	287.	308.	327.	617.	1209.	14186.	546.

APPENDIX C *Continued.*

age	initial region of cohort: vienna									
	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	100000.	0.	0.	0.	0.	0.	0.	0.	0.	100000.
5	97357.	278.	91.	2783.	254.	146.	262.	98.	38.	93466.
10	97148.	309.	127.	4592.	368.	211.	353.	147.	53.	90987.
15	96967.	406.	161.	5561.	484.	270.	451.	205.	75.	89355.
20	96509.	631.	350.	7948.	1013.	621.	886.	469.	189.	84403.
25	96037.	787.	578.	10090.	1617.	1009.	1194.	710.	280.	79771.
30	95515.	895.	708.	11536.	1996.	1186.	1395.	834.	342.	76624.
35	94894.	975.	751.	12374.	2114.	1252.	1466.	880.	363.	74719.
40	93923.	1060.	792.	13433.	2226.	1315.	1539.	932.	388.	72239.
45	92436.	1111.	817.	14199.	2306.	1352.	1599.	961.	399.	69691.
50	90265.	1115.	820.	14390.	2319.	1354.	1618.	959.	400.	67290.
55	86920.	1118.	826.	14588.	2345.	1342.	1636.	958.	395.	63712.
60	82333.	1116.	821.	14446.	2312.	1307.	1623.	937.	384.	59387.
65	74976.	1038.	774.	13565.	2178.	1219.	1537.	881.	358.	53426.
70	64034.	899.	682.	11853.	1907.	1075.	1354.	776.	313.	45175.
75	49573.	704.	537.	9357.	1488.	847.	1067.	619.	250.	34705.
80	32952.	463.	357.	6279.	987.	575.	712.	423.	171.	22984.
85	16862.	224.	186.	3170.	481.	290.	352.	225.	87.	11847.

Expected number of survivors at exact age x for cohorts born in each region.

age	initial region of cohort: east				
	total	east	south	central	west
0	100000.	100000.	0.	0.	0.
5	97383.	96609.	290.	381.	103.
10	97183.	96044.	419.	564.	157.
15	96990.	95162.	642.	922.	263.
20	96410.	92609.	1228.	1951.	623.
25	95840.	90394.	1717.	2817.	912.
30	95252.	88760.	2049.	3360.	1082.
35	94587.	87728.	2169.	3551.	1139.
40	93505.	86294.	2278.	3734.	1199.
45	91970.	84532.	2361.	3844.	1233.
50	89802.	82330.	2383.	3857.	1232.
55	86484.	78984.	2411.	3865.	1223.
60	81884.	74529.	2383.	3779.	1193.
65	74516.	67603.	2249.	3543.	1121.
70	63579.	57512.	1980.	3102.	985.
75	49177.	44410.	1559.	2421.	787.
80	32590.	29403.	1038.	1612.	537.
85	16534.	14941.	520.	791.	282.

age	initial region of cohort: south				
	total	east	south	central	west
0	100000.	0.	100000.	0.	0.
5	97103.	566.	95836.	382.	319.
10	96872.	880.	94946.	577.	470.
15	96666.	1699.	92504.	1214.	1249.
20	96118.	4202.	86487.	2487.	2942.
25	95462.	5597.	82784.	3431.	3649.
30	94789.	6504.	80214.	4039.	4032.
35	94038.	6786.	78842.	4256.	4154.
40	92946.	7042.	77187.	4444.	4273.
45	91454.	7217.	75386.	4546.	4305.
50	89358.	7224.	73322.	4545.	4266.
55	86483.	7191.	70234.	4507.	4210.
60	81624.	7020.	66172.	4372.	4061.
65	74483.	6545.	60094.	4074.	3770.
70	63807.	5699.	51268.	3550.	3290.
75	49172.	4488.	39309.	2763.	2611.
80	32244.	3022.	25611.	1835.	1776.
85	16025.	1553.	12645.	899.	928.

age	initial region of cohort: central				
	total	east	south	central	west
0	100000.	0.	0.	100000.	0.
5	97374.	543.	242.	96409.	179.
10	97134.	814.	412.	95616.	292.
15	96929.	1322.	631.	94380.	595.
20	96420.	3439.	1422.	90029.	1529.
25	95846.	4770.	1916.	87157.	2002.
30	95234.	5540.	2288.	85109.	2297.
35	94586.	5861.	2459.	83859.	2407.
40	93625.	6118.	2612.	82380.	2515.
45	92236.	6347.	2680.	80627.	2582.
50	90261.	6406.	2695.	78585.	2575.
55	87143.	6441.	2720.	75414.	2568.
60	82755.	6343.	2673.	71233.	2506.
65	75542.	5964.	2524.	64706.	2349.
70	64699.	5226.	2222.	55184.	2066.
75	49701.	4138.	1750.	42162.	1651.
80	32637.	2797.	1165.	27546.	1128.
85	15961.	1441.	583.	13344.	592.

age	initial region of cohort: west				
	total	east	south	central	west
0	100000.	0.	0.	0.	100000.
5	97577.	277.	473.	338.	96489.
10	97319.	401.	610.	546.	95761.
15	97141.	606.	821.	869.	94844.
20	96651.	1792.	1951.	1820.	91088.
25	96107.	2682.	2973.	2848.	87604.
30	95510.	3269.	3618.	3542.	85081.
35	94868.	3511.	3873.	3827.	83656.
40	93944.	3697.	4011.	4086.	82149.
45	92655.	3872.	4076.	4264.	80443.
50	90706.	3933.	4059.	4301.	78413.
55	87722.	3958.	4094.	4369.	75301.
60	83525.	3917.	3986.	4303.	71319.
65	76834.	3674.	3713.	4042.	65404.
70	66491.	3215.	3238.	3542.	56496.
75	52301.	2547.	2527.	2774.	44454.
80	35250.	1722.	1676.	1855.	29997.
85	18247.	888.	834.	912.	15613.

APPENDIX C *Continued.*

Geographical distribution of remaining lifetime at age x for cohorts born in each province.

age	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
	initial region of cohort burgenl.									
0	69.93860	51.18264	0.23519	4.64231	0.66291	0.37034	1.95672	0.31177	0.29568	10.28104
5	66.73554	47.55062	0.24083	4.74378	0.67882	0.37922	1.99923	0.31969	0.30248	10.52089
10	61.87091	42.83440	0.23964	4.69397	0.67521	0.37748	1.97872	0.31913	0.30043	10.45195
15	56.96056	38.30066	0.23638	4.59046	0.66657	0.37288	1.93516	0.31519	0.29562	10.24766
20	52.34423	34.38876	0.23066	4.43660	0.65116	0.36402	1.86294	0.30588	0.28640	9.81781
25	47.65956	30.80178	0.22040	4.20618	0.62238	0.34591	1.75327	0.28935	0.27082	9.14947
30	43.01348	27.45974	0.20612	3.91758	0.58294	0.32104	1.62105	0.26870	0.25107	8.38523
35	38.33044	24.23921	0.18882	3.58155	0.53475	0.29269	1.47130	0.24530	0.22820	7.54862
40	33.77551	21.17262	0.17098	3.22949	0.48314	0.26322	1.31882	0.22120	0.20442	6.71163
45	29.35668	18.25662	0.15249	2.86546	0.42890	0.23287	1.16458	0.19635	0.18007	5.87933
50	25.04375	15.45199	0.13348	2.49436	0.37346	0.20231	1.00816	0.17117	0.15576	5.05306
55	20.96231	12.83044	0.11479	2.13096	0.31890	0.17277	0.85473	0.14675	0.13240	4.26057
60	17.02707	10.33923	0.09571	1.76445	0.26378	0.14328	0.70164	0.12225	0.10956	3.48718
65	13.53901	8.15061	0.07809	1.42858	0.21312	0.11633	0.56366	0.09986	0.08902	2.79973
70	10.50455	6.26443	0.06203	1.12778	0.16724	0.09213	0.44079	0.07976	0.07080	2.19958
75	7.89469	4.65139	0.04766	0.86297	0.12660	0.07081	0.33316	0.06210	0.05480	1.68522
80	5.74967	3.32275	0.03590	0.64218	0.09252	0.05319	0.24402	0.04756	0.04144	1.27010
85	4.13573	2.30965	0.02756	0.47573	0.06657	0.04031	0.17744	0.03710	0.03199	0.96938

age	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
	initial region of cohort carinth.									
0	70.31101	0.12593	57.46426	0.96929	0.99560	1.57750	3.05458	2.13576	1.27633	2.71176
5	67.45109	0.12904	54.23964	0.99696	1.02254	1.62241	3.13981	2.19708	1.31157	2.79206
10	62.60590	0.12689	49.46835	0.99117	1.01358	1.61440	3.11844	2.18618	1.30206	2.78483
15	57.73482	0.12363	44.77549	0.97847	0.99794	1.58984	3.07544	2.15204	1.28017	2.76178
20	53.05403	0.11955	40.52415	0.95608	0.97225	1.53457	2.97162	2.07282	1.22945	2.67354
25	48.39561	0.11358	36.61573	0.91580	0.92668	1.44377	2.78911	1.94621	1.14713	2.49761
30	43.71131	0.10578	32.85915	0.85845	0.86223	1.32949	2.56809	1.79440	1.05160	2.28212
35	39.05096	0.09690	29.20936	0.79137	0.78734	1.20423	2.32823	1.62991	0.95043	2.05319
40	34.46165	0.08731	25.66157	0.71892	0.70698	1.07534	2.08152	1.45920	0.84712	1.82368
45	29.98784	0.07711	22.24145	0.64165	0.62344	0.94517	1.83307	1.28566	0.74335	1.59694
50	25.62974	0.06655	18.93554	0.56135	0.53926	0.81542	1.58497	1.11266	0.64056	1.37343
55	21.47026	0.05620	15.80308	0.48149	0.45664	0.68930	1.34109	0.94390	0.54163	1.15693
60	17.50238	0.04605	12.83938	0.40091	0.37529	0.56654	1.10137	0.77921	0.44609	0.94754
65	13.88340	0.03647	10.15263	0.32360	0.29905	0.45322	0.87828	0.62667	0.35808	0.75540
70	10.70783	0.02791	7.80511	0.25358	0.23060	0.35283	0.67885	0.49165	0.28049	0.58679
75	8.10088	0.02082	5.88483	0.19460	0.17344	0.26955	0.51227	0.38022	0.21629	0.44887
80	6.01427	0.01491	4.36212	0.14515	0.12611	0.20126	0.37440	0.28960	0.16330	0.33742
85	4.36191	0.01000	3.16986	0.10367	0.08710	0.14588	0.26113	0.21605	0.12132	0.24689

age	initial region of cohort									
	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	70.32712	0.56242	0.30430	53.89062	1.90272	0.60988	0.88070	0.46072	0.19817	11.51760
5	67.13761	0.57359	0.31088	50.33509	1.94474	0.62426	0.90018	0.47149	0.20282	11.77455
10	62.26450	0.56495	0.30777	45.61535	1.92674	0.62060	0.89168	0.46856	0.20148	11.66735
15	57.39521	0.55253	0.30311	41.03637	1.89449	0.61320	0.87745	0.46306	0.19889	11.45612
20	52.75019	0.53455	0.29629	36.95524	1.83595	0.59693	0.85305	0.45099	0.19357	11.03364
25	48.09837	0.50644	0.28371	33.24220	1.73772	0.56564	0.81072	0.42734	0.18343	10.34118
30	43.41861	0.47071	0.26523	29.72675	1.61087	0.52400	0.75422	0.39574	0.16980	9.50128
35	38.71952	0.42978	0.24320	26.31217	1.46662	0.47720	0.68928	0.36018	0.15439	8.58670
40	34.16600	0.38690	0.22018	23.05754	1.31802	0.42932	0.62217	0.32374	0.13872	7.66940
45	29.69740	0.34203	0.19604	19.91553	1.16411	0.37975	0.55222	0.28609	0.12254	6.73910
50	25.34763	0.29670	0.17143	16.89300	1.00894	0.32965	0.48126	0.24818	0.10627	5.81220
55	21.20844	0.25219	0.14698	14.04928	0.85625	0.28073	0.41090	0.21128	0.09055	4.91028
60	17.26370	0.20776	0.12226	11.37379	0.70505	0.23285	0.34062	0.17538	0.07516	4.03091
65	13.72354	0.16628	0.09905	8.99408	0.56518	0.18875	0.27508	0.14226	0.06098	3.23189
70	10.65880	0.12943	0.07821	6.94946	0.44020	0.14934	0.21601	0.11304	0.04841	2.53471
75	8.05122	0.09720	0.05992	5.21924	0.33117	0.11478	0.16395	0.08770	0.03746	1.93980
80	5.89541	0.06963	0.04480	3.79182	0.23919	0.08558	0.11966	0.06659	0.02817	1.44996
85	4.24917	0.04780	0.03362	2.69910	0.16774	0.06334	0.08530	0.05071	0.02125	1.08031

age	initial region of cohort									
	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	70.56152	0.08418	0.28452	1.53600	62.16832	2.33844	0.91394	0.87565	0.23439	2.12608
5	67.43719	0.08596	0.29148	1.56940	58.84361	2.39372	0.93612	0.89762	0.23988	2.17939
10	62.60618	0.08492	0.28982	1.55152	54.06906	2.37704	0.92989	0.89418	0.23812	2.17163
15	57.72638	0.08351	0.28637	1.52333	49.30749	2.33844	0.91695	0.88413	0.23477	2.15138
20	53.01055	0.08157	0.28037	1.48136	44.84995	2.25562	0.88960	0.85590	0.22848	2.08810
25	48.31233	0.07829	0.26909	1.41339	40.60092	2.12162	0.84203	0.80532	0.21719	1.96447
30	43.61537	0.07368	0.25266	1.32082	36.46946	1.95933	0.78239	0.74357	0.20206	1.81141
35	38.90064	0.06802	0.23283	1.21093	32.39094	1.77948	0.71449	0.67482	0.18487	1.64426
40	34.26562	0.06184	0.21127	1.09380	28.41809	1.59430	0.64277	0.60408	0.16633	1.47312
45	29.74389	0.05532	0.18844	0.97155	24.57374	1.40724	0.56892	0.53222	0.14686	1.29959
50	25.33896	0.04845	0.16472	0.84661	20.85147	1.22033	0.49459	0.46027	0.12747	1.12504
55	21.15597	0.04144	0.14102	0.72419	17.33438	1.03893	0.42176	0.39086	0.10883	0.95456
60	17.16220	0.03436	0.11729	0.60137	13.99981	0.85982	0.34925	0.32297	0.09045	0.78688
65	13.56768	0.02770	0.09507	0.48604	11.01554	0.69421	0.28164	0.26087	0.07344	0.63519
70	10.45753	0.02171	0.07519	0.38338	8.44439	0.54784	0.22110	0.20663	0.05847	0.49881
75	7.88833	0.01659	0.05838	0.29643	6.32809	0.42450	0.16956	0.16155	0.04585	0.38742
80	5.74225	0.01208	0.04420	0.22161	4.56650	0.31959	0.12526	0.12379	0.03496	0.29427
85	4.17116	0.00854	0.03444	0.16611	3.27253	0.24436	0.09258	0.09731	0.02735	0.22796

APPENDIX C *Continued.*

age	initial region of cohort: salzburg									
	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	71.07829	0.08651	0.94032	1.11188	3.94936	58.19763	1.70231	2.25983	0.44068	2.38379
5	67.81084	0.08815	0.95948	1.13527	4.02896	54.65847	1.73692	2.30963	0.45635	2.43762
10	62.94331	0.08722	0.94869	1.12442	3.98568	49.90333	1.71933	2.29462	0.45307	2.42696
15	58.09616	0.08618	0.93723	1.10580	3.91941	45.24414	1.69217	2.26244	0.44703	2.40776
20	53.41039	0.08474	0.90420	1.07766	3.80252	40.93751	1.63776	2.18708	0.43546	2.34346
25	48.71448	0.08180	0.85998	1.03145	3.60335	36.91485	1.54413	2.05772	0.41373	2.20746
30	43.98786	0.07705	0.80061	0.96712	3.34549	33.05330	1.42686	1.89992	0.38424	2.03328
35	39.25917	0.07099	0.73165	0.89162	3.05103	29.29549	1.29516	1.72767	0.35124	1.84433
40	34.66006	0.06431	0.65794	0.81142	2.74400	25.70120	1.15921	1.55215	0.31670	1.65313
45	30.14132	0.05731	0.58065	0.72468	2.42550	22.22340	1.01971	1.37184	0.28027	1.45796
50	25.74749	0.05020	0.50380	0.63416	2.10209	18.87986	0.88106	1.19064	0.24354	1.26213
55	21.57788	0.04312	0.42887	0.54403	1.78321	15.74262	0.74564	1.01305	0.20765	1.06967
60	17.53517	0.03575	0.35311	0.45181	1.46127	12.73899	0.61002	0.83548	0.17164	0.87710
65	13.95101	0.02872	0.28387	0.36615	1.16656	10.10040	0.48740	0.67517	0.13920	0.70355
70	10.75030	0.02220	0.22060	0.28662	0.89693	7.76204	0.37561	0.52958	0.10962	0.54711
75	8.13290	0.01666	0.16808	0.21958	0.67273	5.85960	0.28254	0.40954	0.08504	0.41915
80	5.93337	0.01177	0.12420	0.16128	0.48114	4.26902	0.20296	0.30771	0.06370	0.31159
85	4.35227	0.00807	0.09365	0.11789	0.33897	3.13122	0.14447	0.23493	0.04848	0.23460

age	initial region of cohort: styria									
	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	70.17426	0.36963	1.23952	1.46833	1.31941	1.27810	59.83027	1.24180	0.90025	2.52694
5	67.13924	0.37777	1.26872	1.50428	1.35251	1.31037	56.53575	1.27418	0.92320	2.59245
10	62.29293	0.37242	1.25514	1.49041	1.34242	1.30142	51.76595	1.26844	0.91769	2.57904
15	57.41969	0.36475	1.23212	1.46260	1.32231	1.28077	47.05378	1.25236	0.90286	2.54814
20	52.72977	0.35382	1.19462	1.41570	1.28506	1.23720	42.69622	1.21033	0.86737	2.46945
25	48.07601	0.33663	1.13460	1.34519	1.22101	1.16473	38.60135	1.13697	0.80991	2.32561
30	43.40215	0.31317	1.05426	1.25479	1.13397	1.07351	34.64129	1.04631	0.74217	2.14208
35	38.72298	0.28544	0.96145	1.15051	1.03342	0.97286	30.76112	0.94726	0.66997	1.94094
40	34.15541	0.25628	0.86466	1.03980	0.92840	0.87032	27.01485	0.84674	0.59738	1.73696
45	29.66877	0.22594	0.76474	0.92243	0.81890	0.76609	23.37223	0.74473	0.52429	1.52942
50	25.30785	0.19535	0.66513	0.80322	0.70815	0.66241	19.85561	0.64361	0.45244	1.32193
55	21.16946	0.16544	0.56811	0.68649	0.60038	0.56189	16.53787	0.54564	0.38356	1.12006
60	17.20798	0.13568	0.47107	0.56921	0.49439	0.46307	13.38635	0.44989	0.31627	0.92205
65	13.64158	0.10808	0.38040	0.45920	0.39626	0.37268	10.56589	0.36291	0.25488	0.74127
70	10.53322	0.08373	0.29918	0.36091	0.30828	0.29274	8.11859	0.28653	0.20103	0.58224
75	7.93932	0.06304	0.22999	0.27716	0.23328	0.22512	6.08324	0.22255	0.15566	0.44928
80	5.79906	0.04543	0.17306	0.20633	0.17009	0.16871	4.40825	0.16980	0.11758	0.33981
85	4.21278	0.03187	0.13244	0.15269	0.12218	0.12738	3.16398	0.13177	0.09051	0.25995

age initial region of cohort tyrol

	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	71.55263	0.06754	1.01369	0.67996	1.33621	1.50061	1.03036	63.08744	1.35868	1.47816
5	68.20102	0.06886	1.03271	0.69332	1.36298	1.53087	1.05091	59.56511	1.38714	1.50911
10	63.37163	0.06823	1.02284	0.68793	1.35322	1.52015	1.04425	54.79299	1.37899	1.50301
15	58.49090	0.06730	1.00656	0.67921	1.33561	1.49824	1.03308	50.02187	1.35793	1.49110
20	53.78611	0.06593	0.97918	0.66530	1.30692	1.45799	1.00701	45.53032	1.31619	1.45729
25	49.08121	0.06336	0.93146	0.63929	1.25110	1.38703	0.95389	41.22722	1.24439	1.38347
30	44.37842	0.05948	0.86636	0.60070	1.16931	1.29097	0.88312	37.07224	1.15260	1.28362
35	39.65965	0.05458	0.78938	0.55311	1.07190	1.17953	0.80278	32.98886	1.04949	1.17001
40	35.02501	0.04929	0.70775	0.50220	0.96657	1.06246	0.71905	29.02506	0.94142	1.05121
45	30.48078	0.04367	0.62401	0.44784	0.85459	0.94073	0.63339	25.17784	0.83028	0.92844
50	26.05925	0.03797	0.54043	0.39114	0.74014	0.81787	0.54781	21.46082	0.71914	0.80393
55	21.84686	0.03234	0.45871	0.33447	0.62717	0.69585	0.46319	17.94201	0.61149	0.68164
60	17.83995	0.02665	0.37812	0.27751	0.51485	0.57393	0.37928	14.62252	0.50582	0.56127
65	14.17608	0.02119	0.30224	0.22295	0.40840	0.45971	0.30094	11.60599	0.40653	0.44813
70	10.99407	0.01622	0.23475	0.17408	0.31770	0.35838	0.23153	8.99780	0.31887	0.34875
75	8.30942	0.01192	0.17672	0.13164	0.23244	0.27111	0.17197	6.80611	0.24330	0.26422
80	6.12454	0.00833	0.12945	0.09584	0.16500	0.19853	0.12267	5.03001	0.17994	0.19477
85	4.41922	0.00546	0.09306	0.06713	0.11126	0.14107	0.08383	3.64652	0.13098	0.13990

age initial region of cohort vorarlb.

	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	71.43068	0.12099	1.16615	0.64859	0.81639	0.78704	1.78083	3.02556	61.66310	1.42202
5	68.26904	0.12367	1.19013	0.66290	0.83554	0.80586	1.81781	3.09855	58.27743	1.45715
10	63.44958	0.12232	1.17702	0.65782	0.83091	0.80244	1.80005	3.08493	53.52058	1.45350
15	58.54749	0.12001	1.15843	0.64964	0.82202	0.79451	1.77638	3.04800	48.74068	1.44181
20	53.80860	0.11682	1.12894	0.63706	0.80639	0.77651	1.73359	2.93632	44.26942	1.40354
25	49.08818	0.11153	1.07291	0.61359	0.77358	0.73937	1.64650	2.75260	40.05319	1.32489
30	44.36452	0.10439	0.99295	0.57781	0.72349	0.68697	1.52173	2.53869	35.99443	1.22406
35	39.65074	0.09631	0.90056	0.53332	0.66297	0.62657	1.37792	2.30716	32.03368	1.11226
40	35.01485	0.08723	0.80457	0.48483	0.59801	0.56295	1.22927	2.06827	28.18307	0.99666
45	30.45883	0.07663	0.70712	0.43337	0.52945	0.49750	1.07881	1.82633	24.43152	0.87810
50	26.10611	0.06563	0.61191	0.38154	0.46011	0.43363	0.93291	1.59089	20.86912	0.76038
55	21.94121	0.05495	0.51803	0.32839	0.39085	0.37128	0.78891	1.35740	17.48745	0.64393
60	17.86547	0.04449	0.42313	0.27205	0.32053	0.30798	0.64268	1.11867	14.20952	0.52641
65	14.19804	0.03493	0.33626	0.21886	0.25515	0.24876	0.50869	0.89845	11.27810	0.41884
70	10.99960	0.02648	0.25942	0.17088	0.19635	0.19534	0.39014	0.70347	8.73304	0.32448
75	8.26884	0.01930	0.19355	0.12893	0.14523	0.14861	0.28824	0.53545	6.56545	0.24407
80	6.03228	0.01341	0.14053	0.09379	0.10249	0.10963	0.20447	0.39772	4.79134	0.17890
85	4.48923	0.00908	0.10367	0.06777	0.07100	0.08220	0.14364	0.30114	3.57799	0.13274

APPENDIX C *Continued.*

age	initial region of cohort: vienna								
	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	70.74237	0.65682	0.47251	8.56351	1.32780	0.77405	0.95827	0.55525	0.22598	57.20818
5	67.59499	0.66906	0.48300	8.72451	1.35731	0.79130	0.97755	0.56781	0.23114	53.79331
10	62.73536	0.65694	0.47842	8.55353	1.34422	0.78381	0.96381	0.56273	0.22931	49.16259
15	57.84734	0.63974	0.47187	8.30766	1.32476	0.77287	0.94488	0.55470	0.22644	44.60443
20	53.10991	0.61592	0.46086	7.99714	1.29227	0.75347	0.91474	0.53987	0.22066	40.31498
25	48.35864	0.58205	0.43896	7.56689	1.23015	0.71475	0.86508	0.51183	0.20952	36.23940
30	43.60938	0.54123	0.40769	7.04221	1.14232	0.66119	0.80205	0.47422	0.19438	32.34407
35	38.87830	0.49552	0.37191	6.45836	1.04153	0.60129	0.73193	0.43217	0.17709	28.56850
40	34.25468	0.44649	0.33468	5.83827	0.93679	0.53921	0.65951	0.38839	0.15894	24.95241
45	29.76555	0.39495	0.29656	5.18489	0.82930	0.47575	0.58524	0.34342	0.14021	21.51523
50	25.42133	0.34279	0.25836	4.51780	0.72115	0.41223	0.51022	0.29851	0.12147	18.23882
55	21.30319	0.29176	0.22097	3.85815	0.61475	0.35055	0.43625	0.25485	0.10329	15.17263
60	17.35087	0.24018	0.18326	3.19152	0.50761	0.28966	0.36159	0.21149	0.08538	12.28018
65	13.80802	0.19190	0.14806	2.57069	0.40771	0.23386	0.29169	0.17160	0.06902	9.72350
70	10.74039	0.14907	0.11653	2.01762	0.31787	0.18426	0.22865	0.13622	0.05460	7.63556
75	8.14419	0.11175	0.08904	1.53657	0.23936	0.14111	0.17327	0.10558	0.04213	5.70539
80	5.99117	0.07958	0.06610	1.12538	0.17230	0.10444	0.12573	0.07974	0.03146	4.20645
85	4.32242	0.05365	0.04864	0.79818	0.11902	0.07585	0.08804	0.05966	0.02332	3.05607

Geographical distribution of remaining lifetime at age x for cohorts born in each region.

age	initial region of cohort: east				
	total	east	south	central	west
0	70.47870	66.15814	1.39307	2.21833	0.70915
5	67.30571	62.88891	1.42306	2.26817	0.72556
10	62.43874	58.06210	1.40776	2.24852	0.72037
15	57.55830	53.24940	1.38321	2.21470	0.71099
20	52.88940	48.70056	1.34303	2.15352	0.69229
25	48.18885	44.21634	1.27419	2.04194	0.65638
30	43.47128	39.78753	1.18322	1.89242	0.60812
35	38.75900	35.40224	1.08003	1.72304	0.55370
40	34.17871	31.15928	0.97363	1.54822	0.49758
45	29.70728	27.03567	0.86378	1.36807	0.43976
50	25.36441	23.04335	0.75258	1.18671	0.38177
55	21.24160	19.26426	0.64287	1.00902	0.32545
60	17.29425	15.65936	0.53261	0.83233	0.26995
65	13.75717	12.43930	0.42988	0.66898	0.21901
70	10.69362	9.65945	0.33751	0.52278	0.17387
75	8.09326	7.30698	0.25645	0.39512	0.13471
80	5.93994	5.36364	0.18777	0.28682	0.10171
85	4.28033	3.86732	0.13448	0.20198	0.07655

age	initial region of cohort: south				
	total	east	south	central	west
0	70.19530	4.19000	60.86024	2.61148	2.53358
5	67.21515	4.30044	57.63418	2.67956	2.60096
10	62.36916	4.27334	52.84782	2.66120	2.58680
15	57.49654	4.21572	48.11242	2.62055	2.54784
20	52.81042	4.08630	43.73149	2.53926	2.45337
25	48.15633	3.85777	39.59919	2.40174	2.29762
30	43.48021	3.56598	35.58112	2.22176	2.11135
35	38.80750	3.24114	31.63678	2.01898	1.91060
40	34.23411	2.90729	27.81174	1.80870	1.70639
45	29.75189	2.56495	24.09474	1.59247	1.49974
50	25.39118	2.22108	20.49947	1.37549	1.29513
55	21.24539	1.88559	17.09821	1.16412	1.09747
60	17.28312	1.55471	13.86689	0.95662	0.90491
65	13.70053	1.24848	10.95834	0.76486	0.72885
70	10.57454	0.97768	8.42858	0.59410	0.57419
75	7.97781	0.75074	6.33209	0.44994	0.44504
80	5.85358	0.56253	4.62288	0.32963	0.33854
85	4.24791	0.41813	3.33372	0.23668	0.25937

age	initial region of cohort: central				
	total	east	south	central	west
0	70.67659	3.70195	1.56019	63.91103	1.50342
5	67.51550	3.78785	1.59606	60.59222	1.53937
10	62.67562	3.76224	1.58314	55.79921	1.53103
15	57.80333	3.71513	1.55959	51.01721	1.51140
20	53.09521	3.61128	1.51457	46.50506	1.46430
25	48.39824	3.41878	1.43655	42.16193	1.38097
30	43.69321	3.17008	1.33542	37.91070	1.27701
35	38.97537	2.89045	1.21910	33.70438	1.16143
40	34.34969	2.60024	1.09620	29.61132	1.04193
45	29.82918	2.30152	0.96926	25.63892	0.91949
50	25.42729	1.99866	0.84159	21.79025	0.79679
55	21.24759	1.70162	0.71636	18.15187	0.67774
60	17.24162	1.40563	0.59144	14.68418	0.56038
65	13.64920	1.13255	0.47595	11.58751	0.45319
70	10.51782	0.88996	0.37235	8.89697	0.35853
75	7.93718	0.68746	0.28490	6.68508	0.27975
80	5.77991	0.51561	0.21051	4.84068	0.21310
85	4.20693	0.39043	0.15657	3.49365	0.16628

age	initial region of cohort: west				
	total	east	south	central	west
0	71.49523	2.21435	2.34129	2.42764	64.51195
5	68.20853	2.26225	2.38732	2.47926	61.07970
10	63.38254	2.25082	2.36582	2.46311	56.30280
15	58.49447	2.22902	2.33334	2.43121	51.50090
20	53.77807	2.17827	2.27346	2.37397	46.95237
25	49.06852	2.07422	2.15825	2.26600	42.57005
30	44.35941	1.93140	1.99921	2.11290	38.31589
35	39.64275	1.76579	1.81533	1.93301	34.12862
40	35.00827	1.59133	1.62339	1.74144	30.05211
45	30.46027	1.40923	1.42778	1.54034	26.08292
50	26.06125	1.22440	1.23426	1.33739	22.26519
55	21.86274	1.04115	1.04390	1.13581	18.64187
60	17.83562	0.85776	0.85452	0.93333	15.19001
65	14.17108	0.68544	0.67842	0.74309	12.06413
70	10.98658	0.53301	0.52260	0.57353	9.35744
75	8.28903	0.40217	0.38886	0.42725	7.07075
80	6.08939	0.29392	0.27893	0.30565	5.21089
85	4.43385	0.21019	0.19491	0.21134	3.81742

APPENDIX C *Continued.*

Survivorship proportions for cohorts born in each province.

region burgenl.

	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.98582	0.96205	0.00021	0.00749	0.00063	0.00030	0.00304	0.00016	0.00032	0.01161
5	0.99820	0.95326	0.00038	0.01058	0.00090	0.00051	0.00457	0.00063	0.00052	0.02685
10	0.99570	0.90287	0.00073	0.01687	0.00192	0.00116	0.00865	0.00133	0.00123	0.06094
15	0.99310	0.90362	0.00065	0.01705	0.00191	0.00142	0.00872	0.00107	0.00126	0.05738
20	0.99255	0.93401	0.00053	0.01475	0.00141	0.00103	0.00656	0.00056	0.00099	0.03272
25	0.99167	0.95070	0.00039	0.01074	0.00124	0.00042	0.00470	0.00034	0.00071	0.02241
30	0.98942	0.96779	0.00009	0.00597	0.00086	0.00030	0.00235	0.00018	0.00041	0.01147
35	0.98381	0.96430	0.00017	0.00482	0.00070	0.00027	0.00213	0.00023	0.00032	0.01088
40	0.97739	0.96360	0.00016	0.00337	0.00032	0.00008	0.00189	0.00014	0.00013	0.00769
45	0.96692	0.95453	0.00011	0.00317	0.00027	0.00007	0.00186	0.00008	0.00012	0.00673
50	0.95209	0.93927	0.00012	0.00369	0.00026	0.00014	0.00164	0.00015	0.00007	0.00676
55	0.92413	0.91479	0.00009	0.00321	0.00021	0.00015	0.00086	0.00015	0.00009	0.00458
60	0.87552	0.86753	0.00012	0.00270	0.00021	0.00009	0.00085	0.00012	0.00009	0.00381
65	0.80984	0.80360	0.00010	0.00212	0.00016	0.00003	0.00068	0.00007	0.00007	0.00302
70	0.71565	0.71135	0.00004	0.00145	0.00012	0.00000	0.00048	0.00004	0.00004	0.00214
75	0.58082	0.57815	0.00000	0.00095	0.00006	0.00000	0.00029	0.00000	0.00000	0.00137
80	0.51898	0.51599	0.00000	0.00107	0.00000	0.00000	0.00040	0.00000	-0.00000	0.00152

region carinth.

	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.98328	0.00032	0.97036	0.00102	0.00137	0.00140	0.00355	0.00201	0.00152	0.00172
5	0.99774	0.00023	0.97715	0.00133	0.00129	0.00329	0.00432	0.00461	0.00246	0.00306
10	0.99605	0.00030	0.93429	0.00271	0.00274	0.00765	0.01518	0.01091	0.00699	0.01528
15	0.99370	0.00040	0.92063	0.00357	0.00405	0.00843	0.01868	0.01089	0.00746	0.01960
20	0.99308	0.00031	0.95119	0.00285	0.00360	0.00576	0.00998	0.00623	0.00342	0.00975
25	0.99227	0.00017	0.96955	0.00155	0.00212	0.00320	0.00584	0.00375	0.00183	0.00425
30	0.99012	0.00013	0.97728	0.00082	0.00136	0.00174	0.00336	0.00254	0.00111	0.00178
35	0.98613	0.00014	0.97504	0.00090	0.00107	0.00149	0.00278	0.00216	0.00091	0.00163
40	0.98027	0.00012	0.97259	0.00074	0.00050	0.00103	0.00216	0.00125	0.00057	0.00130
45	0.97108	0.00004	0.96353	0.00048	0.00045	0.00092	0.00252	0.00120	0.00045	0.00149
50	0.95669	0.00002	0.94885	0.00066	0.00050	0.00088	0.00255	0.00124	0.00046	0.00153
55	0.93263	0.00005	0.92629	0.00073	0.00045	0.00065	0.00201	0.00094	0.00033	0.00119
60	0.89086	0.00003	0.88532	0.00059	0.00042	0.00056	0.00190	0.00070	0.00027	0.00106
65	0.82159	0.00000	0.81722	0.00047	0.00031	0.00045	0.00150	0.00055	0.00022	0.00086
70	0.72199	0.00000	0.71853	0.00039	0.00026	0.00036	0.00117	0.00044	0.00018	0.00067
75	0.59981	0.00000	0.59740	0.00029	0.00018	0.00026	0.00079	0.00030	0.00015	0.00044
80	0.59545	0.00000	0.59269	0.00032	0.00024	0.00033	0.00087	0.00033	0.00026	0.00040

region lower a.

	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.98587	0.00119	0.00043	0.96272	0.00262	0.00059	0.00124	0.00046	0.00022	0.01639
5	0.99793	0.00086	0.00033	0.96839	0.00304	0.00077	0.00121	0.00053	0.00026	0.02253
10	0.99563	0.00183	0.00070	0.92175	0.00731	0.00229	0.00285	0.00166	0.00070	0.05654
15	0.99308	0.00248	0.00110	0.90282	0.00898	0.00299	0.00379	0.00227	0.00096	0.06769
20	0.99264	0.00194	0.00103	0.93193	0.00644	0.00192	0.00307	0.00153	0.00068	0.04411
25	0.99249	0.00139	0.00063	0.95677	0.00417	0.00097	0.00189	0.00076	0.00033	0.02558
30	0.98971	0.00089	0.00035	0.96815	0.00258	0.00057	0.00113	0.00043	0.00013	0.01547
35	0.98505	0.00075	0.00031	0.96423	0.00224	0.00056	0.00103	0.00037	0.00014	0.01542
40	0.97987	0.00052	0.00026	0.96401	0.00157	0.00044	0.00074	0.00027	0.00011	0.01195
45	0.97032	0.00051	0.00026	0.95466	0.00159	0.00034	0.00081	0.00018	0.00007	0.01189
50	0.95516	0.00062	0.00030	0.93861	0.00170	0.00029	0.00085	0.00015	0.00010	0.01253
55	0.92824	0.00054	0.00023	0.91556	0.00136	0.00033	0.00073	0.00017	0.00010	0.00923
60	0.88205	0.00041	0.00015	0.87197	0.00120	0.00033	0.00068	0.00015	0.00008	0.00707
65	0.81570	0.00031	0.00012	0.80788	0.00094	0.00026	0.00053	0.00011	0.00005	0.00551
70	0.72374	0.00022	0.00008	0.71784	0.00071	0.00019	0.00040	0.00008	0.00004	0.00418
75	0.59613	0.00014	0.00006	0.59218	0.00047	0.00013	0.00026	0.00006	0.00003	0.00281
80	0.56093	0.00015	0.00008	0.55650	0.00052	0.00014	0.00029	0.00008	0.00002	0.00314

region upper a.

	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.98512	0.00014	0.00030	0.00261	0.97555	0.00277	0.00112	0.00072	0.00028	0.00162
5	0.99770	0.00007	0.00032	0.00196	0.98621	0.00421	0.00125	0.00121	0.00029	0.00219
10	0.99645	0.00016	0.00070	0.00408	0.96239	0.01088	0.00353	0.00419	0.00072	0.00980
15	0.99448	0.00025	0.00106	0.00599	0.95224	0.01220	0.00437	0.00471	0.00101	0.01265
20	0.99372	0.00023	0.00095	0.00548	0.96691	0.00749	0.00270	0.00249	0.00077	0.00670
25	0.99323	0.00016	0.00060	0.00377	0.97695	0.00471	0.00181	0.00155	0.00041	0.00327
30	0.99167	0.00009	0.00041	0.00210	0.98183	0.00279	0.00123	0.00079	0.00036	0.00207
35	0.98777	0.00008	0.00039	0.00186	0.97890	0.00234	0.00103	0.00073	0.00031	0.00214
40	0.98207	0.00010	0.00036	0.00144	0.97523	0.00183	0.00069	0.00050	0.00010	0.00180
45	0.97231	0.00011	0.00031	0.00119	0.96602	0.00185	0.00071	0.00033	0.00009	0.00170
50	0.95734	0.00007	0.00025	0.00162	0.94987	0.00223	0.00087	0.00046	0.00015	0.00181
55	0.93107	0.00006	0.00023	0.00156	0.92430	0.00202	0.00085	0.00037	0.00015	0.00152
60	0.88415	0.00006	0.00020	0.00124	0.87870	0.00158	0.00076	0.00025	0.00010	0.00126
65	0.81198	0.00005	0.00015	0.00098	0.80770	0.00123	0.00059	0.00020	0.00009	0.00099
70	0.71493	0.00004	0.00012	0.00074	0.71167	0.00093	0.00045	0.00014	0.00007	0.00076
75	0.58398	0.00003	0.00007	0.00047	0.58189	0.00059	0.00028	0.00009	0.00004	0.00051
80	0.53662	0.00000	0.00010	0.00051	0.53429	0.00066	0.00035	0.00010	0.00003	0.00056

APPENDIX C *Continued.*

region salzburg

	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.98654	0.00011	0.00164	0.00167	0.00631	0.96938	0.00256	0.00250	0.00052	0.00186
5	0.99773	0.00003	0.00149	0.00169	0.00519	0.98088	0.00217	0.00374	0.00059	0.00194
10	0.99591	0.00013	0.00275	0.00276	0.01342	0.94773	0.00683	0.01043	0.00137	0.01049
15	0.99420	0.00027	0.00403	0.00375	0.01892	0.92898	0.00881	0.01217	0.00207	0.01521
20	0.99413	0.00031	0.00353	0.00337	0.01413	0.94957	0.00565	0.00708	0.00164	0.00887
25	0.99393	0.00023	0.00241	0.00201	0.00970	0.96699	0.00377	0.00408	0.00079	0.00397
30	0.99139	0.00013	0.00187	0.00127	0.00623	0.97375	0.00231	0.00262	0.00061	0.00260
35	0.98725	0.00005	0.00139	0.00144	0.00508	0.97187	0.00177	0.00246	0.00060	0.00258
40	0.98208	0.00004	0.00061	0.00126	0.00439	0.97020	0.00104	0.00196	0.00037	0.00222
45	0.97228	0.00007	0.00074	0.00097	0.00412	0.96028	0.00129	0.00200	0.00036	0.00245
50	0.95967	0.00010	0.00098	0.00094	0.00435	0.94726	0.00141	0.00192	0.00034	0.00236
55	0.93424	0.00011	0.00077	0.00101	0.00368	0.92431	0.00100	0.00142	0.00020	0.00173
60	0.89154	0.00007	0.00052	0.00093	0.00281	0.88353	0.00095	0.00113	0.00023	0.00137
65	0.82519	0.00005	0.00042	0.00076	0.00217	0.81888	0.00075	0.00089	0.00019	0.00109
70	0.73052	0.00003	0.00031	0.00055	0.00168	0.72570	0.00055	0.00070	0.00018	0.00083
75	0.60247	0.00000	0.00020	0.00035	0.00108	0.59939	0.00029	0.00045	0.00015	0.00055
80	0.58467	0.00000	0.00036	0.00045	0.00121	0.58090	0.00034	0.00047	0.00011	0.00082

region styria

	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.98451	0.00074	0.00198	0.00213	0.00161	0.00145	0.97232	0.00102	0.00090	0.00236
5	0.99775	0.00050	0.00191	0.00276	0.00196	0.00231	0.98110	0.00201	0.00185	0.00336
10	0.99613	0.00106	0.00414	0.00520	0.00447	0.00573	0.95319	0.00614	0.00495	0.01126
15	0.99372	0.00158	0.00559	0.00557	0.00588	0.00676	0.94226	0.00690	0.00513	0.01405
20	0.99289	0.00155	0.00488	0.00418	0.00481	0.00446	0.95761	0.00396	0.00256	0.00888
25	0.99240	0.00114	0.00317	0.00289	0.00292	0.00242	0.97191	0.00205	0.00123	0.00468
30	0.99000	0.00061	0.00181	0.00191	0.00162	0.00132	0.97872	0.00104	0.00064	0.00234
35	0.98593	0.00050	0.00146	0.00173	0.00148	0.00109	0.97589	0.00086	0.00050	0.00242
40	0.98043	0.00038	0.00090	0.00108	0.00105	0.00081	0.97335	0.00055	0.00030	0.00201
45	0.97019	0.00034	0.00097	0.00090	0.00069	0.00083	0.96366	0.00058	0.00036	0.00187
50	0.95522	0.00038	0.00134	0.00125	0.00071	0.00084	0.94784	0.00054	0.00044	0.00188
55	0.92916	0.00030	0.00119	0.00118	0.00080	0.00062	0.92296	0.00030	0.00029	0.00153
60	0.88351	0.00021	0.00083	0.00083	0.00076	0.00050	0.87865	0.00023	0.00016	0.00134
65	0.81416	0.00017	0.00065	0.00066	0.00060	0.00040	0.81030	0.00019	0.00013	0.00106
70	0.71781	0.00013	0.00050	0.00051	0.00045	0.00031	0.71487	0.00015	0.00009	0.00080
75	0.58729	0.00007	0.00032	0.00033	0.00029	0.00021	0.58540	0.00008	0.00006	0.00053
80	0.54698	0.00009	0.00034	0.00036	0.00033	0.00025	0.54487	0.00010	0.00003	0.00062

region tyrol

	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.98694	0.00010	0.00148	0.00085	0.00163	0.00184	0.00107	0.97726	0.00156	0.00115
5	0.99773	0.00005	0.00120	0.00057	0.00141	0.00209	0.00078	0.98821	0.00245	0.00096
10	0.99640	0.00014	0.00311	0.00153	0.00316	0.00487	0.00370	0.96942	0.00524	0.00523
15	0.99453	0.00023	0.00465	0.00245	0.00571	0.00690	0.00567	0.95402	0.00677	0.00813
20	0.99398	0.00024	0.00406	0.00240	0.00557	0.00597	0.00389	0.96118	0.00492	0.00573
25	0.99351	0.00018	0.00280	0.00162	0.00334	0.00376	0.00210	0.97369	0.00288	0.00314
30	0.99190	0.00007	0.00160	0.00069	0.00230	0.00222	0.00120	0.97989	0.00191	0.00202
35	0.98843	0.00007	0.00108	0.00072	0.00211	0.00208	0.00094	0.97807	0.00148	0.00189
40	0.98332	0.00003	0.00072	0.00069	0.00139	0.00148	0.00066	0.97578	0.00100	0.00156
45	0.97427	0.00004	0.00075	0.00053	0.00109	0.00173	0.00086	0.96715	0.00085	0.00128
50	0.95999	0.00006	0.00090	0.00054	0.00129	0.00184	0.00091	0.95188	0.00113	0.00143
55	0.93669	0.00005	0.00075	0.00049	0.00107	0.00111	0.00052	0.93047	0.00093	0.00128
60	0.89502	0.00005	0.00057	0.00039	0.00073	0.00093	0.00046	0.89037	0.00064	0.00087
65	0.83021	0.00002	0.00046	0.00034	0.00056	0.00075	0.00035	0.82646	0.00055	0.00073
70	0.73871	0.00000	0.00035	0.00027	0.00043	0.00060	0.00024	0.73584	0.00041	0.00057
75	0.61663	0.00000	0.00023	0.00015	0.00030	0.00042	0.00015	0.61479	0.00027	0.00034
80	0.61439	0.00000	0.00026	0.00025	0.00032	0.00041	0.00025	0.61221	0.00035	0.00034

region vorarlb.

	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.98549	0.00023	0.00186	0.00077	0.00085	0.00069	0.00246	0.00288	0.97478	0.00096
5	0.99783	0.00018	0.00089	0.00046	0.00066	0.00071	0.00083	0.00484	0.98802	0.00125
10	0.99690	0.00028	0.00314	0.00130	0.00184	0.00250	0.00511	0.01567	0.96098	0.00608
15	0.99502	0.00047	0.00610	0.00218	0.00351	0.00405	0.00979	0.01727	0.94328	0.00838
20	0.99441	0.00040	0.00561	0.00226	0.00344	0.00326	0.00879	0.00797	0.95781	0.00487
25	0.99373	0.00020	0.00312	0.00161	0.00215	0.00182	0.00484	0.00511	0.97225	0.00263
30	0.99188	0.00026	0.00142	0.00080	0.00115	0.00105	0.00204	0.00341	0.98016	0.00160
35	0.98869	0.00039	0.00097	0.00056	0.00100	0.00076	0.00139	0.00242	0.97969	0.00151
40	0.98209	0.00022	0.00075	0.00048	0.00091	0.00044	0.00085	0.00177	0.97529	0.00138
45	0.97165	0.00003	0.00086	0.00074	0.00067	0.00041	0.00131	0.00262	0.96384	0.00117
50	0.96103	0.00000	0.00092	0.00084	0.00059	0.00064	0.00162	0.00320	0.95203	0.00120
55	0.93915	0.00004	0.00058	0.00058	0.00061	0.00084	0.00103	0.00228	0.93228	0.00092
60	0.89603	0.00004	0.00039	0.00046	0.00054	0.00069	0.00077	0.00147	0.89107	0.00061
65	0.83313	0.00000	0.00027	0.00036	0.00041	0.00055	0.00059	0.00119	0.82925	0.00050
70	0.74249	0.00000	0.00025	0.00031	0.00037	0.00050	0.00049	0.00100	0.73919	0.00037
75	0.60856	0.00000	0.00017	0.00026	0.00017	0.00035	0.00034	0.00061	0.60638	0.00027
80	0.60784	0.00000	0.00000	0.00017	0.00000	0.00059	0.00017	0.00060	0.60614	0.00018

APPENDIX C *Continued.*

region vienna

	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	0.98554	0.00162	0.00066	0.02426	0.00189	0.00110	0.00184	0.00076	0.00027	0.95316
5	0.99800	0.00111	0.00038	0.01627	0.00114	0.00064	0.00101	0.00055	0.00018	0.97671
10	0.99678	0.00206	0.00126	0.02289	0.00327	0.00218	0.00290	0.00164	0.00069	0.95590
15	0.99540	0.00255	0.00244	0.03338	0.00604	0.00416	0.00420	0.00269	0.00108	0.93884
20	0.99516	0.00193	0.00218	0.02899	0.00552	0.00346	0.00303	0.00211	0.00085	0.94707
25	0.99434	0.00151	0.00113	0.02027	0.00288	0.00166	0.00171	0.00106	0.00050	0.96363
30	0.99201	0.00133	0.00061	0.01736	0.00142	0.00103	0.00102	0.00069	0.00031	0.96825
35	0.98734	0.00127	0.00057	0.01849	0.00136	0.00094	0.00108	0.00064	0.00026	0.96272
40	0.98038	0.00083	0.00040	0.01359	0.00100	0.00064	0.00089	0.00037	0.00016	0.96250
45	0.96952	0.00067	0.00038	0.01216	0.00097	0.00051	0.00083	0.00031	0.00013	0.95357
50	0.95502	0.00089	0.00051	0.01381	0.00121	0.00051	0.00100	0.00040	0.00010	0.93657
55	0.92943	0.00076	0.00043	0.01141	0.00106	0.00043	0.00095	0.00032	0.00007	0.91400
60	0.88368	0.00049	0.00029	0.00864	0.00083	0.00036	0.00074	0.00024	0.00004	0.87204
65	0.81754	0.00037	0.00022	0.00671	0.00064	0.00029	0.00057	0.00018	0.00003	0.80853
70	0.72772	0.00027	0.00017	0.00504	0.00048	0.00022	0.00043	0.00014	0.00002	0.72095
75	0.60728	0.00017	0.00011	0.00323	0.00031	0.00014	0.00027	0.00009	0.00002	0.60292
80	0.59553	0.00017	0.00013	0.00351	0.00033	0.00017	0.00028	0.00010	0.00001	0.59083

Survivorship proportions for cohorts born in each region.

region east

	total	east	south	central	west
0	0.98573	0.97986	0.00216	0.00291	0.00080
5	0.99798	0.99245	0.00188	0.00284	0.00081
10	0.99601	0.98181	0.00443	0.00741	0.00237
15	0.99405	0.97405	0.00610	0.01052	0.00338
20	0.99399	0.97835	0.00488	0.00821	0.00255
25	0.99346	0.98466	0.00286	0.00459	0.00135
30	0.99077	0.98573	0.00163	0.00264	0.00077
35	0.98599	0.98133	0.00157	0.00240	0.00069
40	0.97989	0.97653	0.00123	0.00169	0.00044
45	0.96963	0.96650	0.00121	0.00157	0.00035
50	0.95486	0.95135	0.00139	0.00173	0.00038
55	0.92860	0.92560	0.00119	0.00148	0.00033
60	0.88252	0.88005	0.00095	0.00126	0.00025
65	0.81635	0.81445	0.00074	0.00098	0.00018
70	0.72549	0.72407	0.00055	0.00074	0.00014
75	0.60159	0.60066	0.00036	0.00048	0.00009
80	0.57774	0.57670	0.00040	0.00054	0.00010

region south

	total	east	south	central	west
0	0.98412	0.00454	0.97417	0.00298	0.00243
5	0.99775	0.00597	0.98251	0.00438	0.00490
10	0.99610	0.01777	0.95470	0.01031	0.01332
15	0.99370	0.02199	0.94506	0.01261	0.01405
20	0.99294	0.01410	0.96208	0.00931	0.00745
25	0.99236	0.00789	0.97517	0.00534	0.00396
30	0.99004	0.00421	0.98056	0.00300	0.00227
35	0.98599	0.00405	0.97749	0.00257	0.00188
40	0.98038	0.00307	0.97440	0.00176	0.00115
45	0.97046	0.00278	0.96506	0.00147	0.00115
50	0.95566	0.00312	0.94984	0.00150	0.00120
55	0.93019	0.00270	0.92538	0.00132	0.00079
60	0.88563	0.00218	0.88172	0.00118	0.00056
65	0.81627	0.00174	0.81316	0.00093	0.00044
70	0.71898	0.00133	0.71659	0.00072	0.00035
75	0.59076	0.00088	0.58918	0.00048	0.00022
80	0.56026	0.00097	0.55847	0.00056	0.00026

region central

	total	east	south	central	west
0	0.98548	0.00419	0.00212	0.97766	0.00150
5	0.99771	0.00409	0.00207	0.98939	0.00216
10	0.99632	0.01389	0.00548	0.97042	0.00653
15	0.99441	0.01900	0.00728	0.96029	0.00784
20	0.99383	0.01244	0.00517	0.97148	0.00475
25	0.99342	0.00694	0.00344	0.98030	0.00275
30	0.99161	0.00419	0.00227	0.98348	0.00166
35	0.98764	0.00407	0.00184	0.98021	0.00152
40	0.98207	0.00339	0.00120	0.97646	0.00102
45	0.97230	0.00312	0.00127	0.96701	0.00090
50	0.95791	0.00348	0.00143	0.95198	0.00103
55	0.93185	0.00307	0.00125	0.92673	0.00079
60	0.88592	0.00252	0.00108	0.88173	0.00059
65	0.81510	0.00199	0.00085	0.81179	0.00047
70	0.71846	0.00151	0.00063	0.71595	0.00037
75	0.58812	0.00099	0.00039	0.58650	0.00024
80	0.54722	0.00112	0.00051	0.54536	0.00024

region west

	total	east	south	central	west
0	0.98644	0.00205	0.00316	0.00281	0.97842
5	0.99776	0.00169	0.00189	0.00278	0.99140
10	0.99657	0.00716	0.00731	0.00678	0.97532
15	0.99469	0.01090	0.01221	0.01089	0.96069
20	0.99412	0.00810	0.01012	0.00992	0.96599
25	0.99359	0.00477	0.00593	0.00604	0.97684
30	0.99189	0.00274	0.00303	0.00371	0.98242
35	0.98852	0.00260	0.00214	0.00335	0.98043
40	0.98292	0.00222	0.00145	0.00236	0.97689
45	0.97344	0.00188	0.00178	0.00228	0.96750
50	0.96033	0.00203	0.00203	0.00255	0.95371
55	0.93746	0.00173	0.00138	0.00195	0.93239
60	0.89534	0.00125	0.00107	0.00152	0.89150
65	0.83111	0.00102	0.00082	0.00120	0.82807
70	0.73986	0.00079	0.00064	0.00098	0.73745
75	0.61415	0.00050	0.00042	0.00065	0.61258
80	0.61246	0.00051	0.00040	0.00067	0.61087

Appendix D

MULTIREGIONAL POPULATION PROJECTION:

1. Multiregional projection of the populations of the nine provinces in 1971 (observed data) to 1991 and 2021, and the stable equivalent to the observed population
2. Multiregional projection of the populations of the four regions in 1971 (observed data) to 1991 and 2021, and the stable equivalent to the observed population

APPENDIX D

Multiregional population projection for the nine provinces.

year 1971

population

age	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	593578.	20695.	46229.	110431.	107907.	36950.	99146.	52872.	27669.	91679.
5	643388.	23769.	50407.	124076.	119321.	38226.	109393.	55432.	28745.	94017.
10	585366.	24543.	49830.	116052.	109411.	33340.	102763.	47568.	24496.	77383.
15	511456.	22203.	44007.	100933.	94938.	29623.	89731.	40714.	21749.	67558.
20	528888.	19060.	36774.	92420.	86865.	31876.	85602.	43733.	22197.	110361.
25	486315.	12276.	30701.	79850.	74678.	29094.	73318.	38760.	19761.	127877.
30	503199.	17110.	33764.	93140.	81906.	28233.	77594.	37997.	20153.	113302.
35	406906.	16572.	28102.	79010.	70391.	22091.	64651.	30024.	16324.	79741.
40	455073.	18252.	33037.	87560.	74000.	23845.	73620.	31047.	16079.	97633.
45	480909.	19178.	33681.	89536.	76410.	24428.	77641.	29982.	14796.	115257.
50	339397.	11789.	23419.	61809.	54541.	18133.	54474.	21953.	9329.	83950.
55	413520.	14809.	27544.	78158.	62341.	20457.	64898.	26389.	12001.	106923.
60	446838.	15861.	28090.	86557.	64059.	20655.	66872.	26739.	12253.	125752.
65	402232.	13617.	23640.	79879.	56923.	18039.	58679.	22463.	10552.	118440.
70	305467.	10969.	17287.	61736.	42240.	12837.	43966.	16277.	7197.	92958.
75	195026.	6589.	10492.	39461.	27021.	7838.	27639.	10219.	4414.	61353.
80	109529.	3235.	5829.	21815.	13785.	4066.	14862.	5684.	2468.	33785.
85	53316.	1592.	2895.	11758.	6705.	2035.	7251.	2918.	1290.	16872.
total	7456403.	272119.	525728.	1414161.	1223444.	401766.	1192100.	540771.	271473.	1614841.

percentage distribution

age	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	7.9606	7.6051	8.7933	7.8089	8.8199	9.1969	8.3169	9.7772	10.1922	5.6773
5	8.6287	8.7348	9.5880	8.7738	9.7530	9.5145	9.1765	10.2505	10.5885	5.8221
10	7.8505	9.0192	9.4783	8.2050	8.9429	8.2984	8.6203	8.7963	9.0234	4.7920
15	6.8593	8.1593	8.3707	7.1373	7.7599	7.3732	7.5271	7.5289	8.0115	4.1836
20	7.0931	7.0043	6.9949	6.5353	7.1000	7.9380	7.1808	8.0872	8.1765	6.8342
25	6.5221	4.5113	5.8397	5.6465	6.1039	7.2415	6.1503	7.1675	7.2792	7.9189
30	6.7485	6.2877	6.4223	6.5862	6.6947	7.0272	6.5090	7.0264	7.4236	7.0163
35	5.4571	6.0900	5.3453	5.5871	5.7535	5.4985	5.4233	5.5521	6.0131	4.9380
40	6.1031	6.7074	6.2840	6.1917	6.0485	5.9350	6.1757	5.7412	5.9229	6.0460
45	6.4496	7.0477	6.4065	6.3314	6.2455	6.0802	6.5130	5.5443	5.4503	7.1374
50	4.5518	4.3323	4.4546	4.3707	4.4580	4.5133	4.5696	4.0596	3.4364	5.1987
55	5.5458	5.4421	5.2392	5.5268	5.0955	5.0918	5.4440	4.8799	4.4207	6.6213
60	5.9927	5.8287	5.3431	6.1207	5.2360	5.1411	5.6096	4.9446	4.5135	7.7873
65	5.3945	5.0041	4.4966	5.6485	4.6527	4.4899	4.9223	4.1539	3.8869	7.3345
70	4.0967	4.0310	3.2882	4.3656	3.4525	3.1951	3.6881	3.0100	2.6511	5.7565
75	2.6156	2.4214	1.9957	2.7904	2.2086	1.9509	2.3185	1.8897	1.6259	3.7993
80	1.4153	1.1888	1.1087	1.5426	1.1267	1.0120	1.2467	1.0511	0.9091	2.0922
85	0.7150	0.5850	0.5507	0.8314	0.5480	0.5065	0.6083	0.5396	0.4752	1.0448
total	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
m.ag	36.0701	35.4586	33.6270	36.4642	33.8817	33.4516	34.8548	32.4777	31.3327	41.8294
sha	100.0000	3.0495	7.0507	18.9657	16.4080	5.3882	15.9876	7.2524	3.6408	21.6571

year 1991

population

age	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	628096.	21569.	50737.	110083.	121516.	42940.	104103.	61309.	33710.	82130.
5	602500.	21812.	49098.	108263.	115514.	40110.	100787.	56662.	31033.	79220.
10	566410.	20659.	45553.	102296.	106215.	37283.	94271.	52101.	28677.	79395.
15	534976.	18025.	40020.	93393.	96418.	35497.	86614.	49414.	26968.	88626.
20	578037.	17241.	41052.	98664.	102677.	38729.	91808.	54237.	27799.	105831.
25	631788.	19420.	44841.	108864.	114274.	41478.	101002.	57456.	29223.	115229.
30	572030.	19879.	43992.	100717.	104370.	36410.	94293.	49177.	24845.	98348.
35	497086.	18913.	39997.	90230.	91148.	31249.	83077.	40961.	21535.	79977.
40	510381.	17283.	35017.	89098.	84442.	32110.	80141.	42498.	21587.	108205.
45	463356.	11612.	29183.	78907.	71812.	28388.	68648.	37171.	18945.	118690.
50	468525.	15543.	31294.	87927.	76701.	26836.	71400.	35759.	18866.	104199.
55	365613.	14381.	25169.	71116.	63398.	20336.	57478.	27333.	14754.	71649.
60	385567.	14986.	27998.	74635.	62844.	20753.	61775.	26802.	13799.	81974.
65	367616.	14158.	25976.	69247.	58423.	19314.	58794.	23590.	11604.	86508.
70	218505.	7343.	15294.	40335.	34811.	12134.	34638.	14687.	6295.	52967.
75	201555.	6935.	13567.	38531.	29765.	10434.	31051.	13578.	6241.	51453.
80	139937.	4668.	8890.	27342.	19212.	6793.	20256.	9060.	4130.	39586.
85	81459.	2379.	5004.	16015.	10365.	3887.	11008.	5227.	2415.	25159.
total	7813438.	266807.	572684.	1405864.	1363904.	484642.	1251145.	657022.	342426.	1469145.

percentage distribution

age	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	8.0387	8.0841	8.8594	7.8314	8.9094	8.8602	8.3206	9.3314	9.8444	5.5903
5	7.7111	8.1751	8.5733	7.7019	8.4694	8.2763	8.0556	8.6240	9.0627	5.3923
10	7.2492	7.7430	7.9543	7.2774	7.7876	7.6846	7.5348	7.9298	8.3746	5.4042
15	6.8469	6.7560	6.9882	6.6440	7.0693	7.3244	6.9228	7.5209	7.8757	6.0325
20	7.3980	6.4619	7.1684	7.0190	7.5281	7.9913	7.3379	8.2550	8.1182	7.2036
25	8.0859	7.2787	7.8300	7.7447	8.3785	8.5585	8.0728	8.7449	8.5343	7.8433
30	7.3211	7.4507	7.6817	7.1651	7.6523	7.5128	7.5365	7.4849	7.2556	6.6942
35	6.3619	7.0887	6.9842	6.4191	6.6829	6.4478	6.6401	6.2343	6.2889	5.4438
40	6.5321	6.4776	6.1145	6.3385	6.1912	6.6255	6.4054	6.4683	6.3040	7.3652
45	5.9302	4.3523	5.0959	5.6135	5.2652	5.8576	5.4868	5.6575	5.5326	8.0788
50	5.9964	5.8257	5.4645	6.2552	5.6237	5.5372	5.7068	5.4425	5.5095	7.0925
55	4.6793	5.3900	4.3949	5.0593	4.6483	4.1960	4.5940	4.1601	4.3086	4.8769
60	4.9347	5.6168	4.8890	5.3096	4.6077	4.2822	4.9375	4.0793	4.0299	5.5797
65	4.7049	5.3066	4.5359	4.9263	4.2835	3.9853	4.6992	3.5905	3.3888	5.8883
70	2.7965	2.7522	2.6705	2.8695	2.5523	2.5038	2.7685	2.2354	1.8384	3.6053
75	2.5796	2.5994	2.3690	2.7411	2.1823	2.1530	2.4818	2.0666	1.8227	3.5023
80	1.7910	1.7496	1.5524	1.9451	1.4086	1.4016	1.6190	1.3790	1.2060	2.6945
85	1.0425	0.8917	0.8738	1.1393	0.7599	0.8021	0.8799	0.7955	0.7052	1.7125
total	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
m.ag	35.6451	35.8047	34.3134	36.2941	33.9568	33.7221	35.0362	32.9351	32.0814	40.2769
sha	100.0000	3.4147	7.3295	17.9903	17.4559	6.2027	16.0127	8.4089	4.3825	18.8028
law	1.015666	0.995140	1.023386	1.002064	1.031744	1.008527	1.014678	1.052105	1.060252	0.980869
r	0.003109	-0.000974	0.004623	0.000412	0.006250	0.009477	0.002914	0.010159	0.011701	-0.003863

APPENDIX D *Continued.*

year 2021

population

age	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	656696.	19481.	52130.	102986.	131921.	51029.	103894.	78382.	42668.	78285.
5	639382.	19855.	50856.	102781.	127555.	48865.	101651.	70519.	40241.	77499.
10	625503.	19041.	49321.	101657.	123323.	47275.	99518.	67648.	38408.	79310.
15	610154.	17732.	46108.	96861.	117558.	46066.	96069.	65995.	36638.	87132.
20	600811.	16744.	43570.	92932.	113550.	45357.	93299.	64694.	35039.	95625.
25	602480.	16580.	43469.	93429.	113383.	45281.	92880.	63310.	33909.	100279.
30	603614.	16906.	43879.	95173.	113327.	44715.	93461.	61369.	32639.	102186.
35	582294.	17077.	42698.	93781.	108548.	42224.	90871.	57217.	30383.	99496.
40	541358.	16363.	39529.	88805.	99250.	38563.	84396.	51858.	27680.	94914.
45	503517.	15067.	35675.	83887.	90120.	35378.	77586.	47386.	25354.	93065.
50	531384.	14907.	37185.	90191.	94751.	36892.	81663.	50014.	25487.	100333.
55	559060.	16402.	39389.	96854.	101299.	37693.	87340.	51196.	25920.	102967.
60	474360.	15734.	36242.	83752.	86523.	30988.	76679.	41413.	20887.	82183.
65	368392.	13220.	29601.	66406.	67276.	23897.	60443.	31163.	16315.	60072.
70	313516.	10093.	21754.	55397.	51430.	20438.	48359.	27099.	13746.	65200.
75	210256.	5091.	13400.	36788.	31918.	13441.	30427.	17819.	9113.	52303.
80	130729.	4022.	8848.	24667.	20420.	7912.	19151.	10860.	5691.	29159.
85	60737.	2013.	4417.	11603.	9485.	3658.	8828.	5312.	2821.	12639.
total	8614285.	255889.	638030.	1417869.	1601553.	619671.	1346519.	859253.	462938.	1412528.

percentage distribution

age	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	7.6238	7.5978	8.1705	7.2635	8.2370	8.2349	7.7158	8.6566	9.2168	5.5393
5	7.4224	7.6027	7.9708	7.2462	7.9685	7.8856	7.5492	8.2070	8.6925	5.4866
10	7.2613	7.4413	7.7302	7.1697	7.7002	7.6290	7.3908	7.8729	8.2967	5.6148
15	7.0831	6.9297	7.2266	6.8315	7.3400	7.4340	7.1346	7.6805	7.9142	6.1685
20	6.9746	6.5433	6.8289	6.5544	7.0900	7.3195	6.9289	7.5291	7.5689	6.7698
25	6.9940	6.4798	6.8130	6.5894	7.0770	7.3073	6.8978	7.3680	7.3248	7.0992
30	7.0072	6.6068	6.8772	6.7124	7.0761	7.2159	6.9409	7.1421	7.0503	7.2315
35	6.7597	6.6736	6.6922	6.6142	6.7776	6.8139	6.7486	6.6589	6.5630	7.0438
40	6.2845	6.3947	6.1955	6.2633	6.1971	6.2231	6.2678	6.0352	5.9791	6.7195
45	5.8452	5.8879	5.5918	5.9164	5.6270	5.7091	5.7620	5.5148	5.4767	6.5886
50	6.1687	5.8258	5.8218	6.3610	5.9162	5.9535	6.0647	5.8206	5.5056	7.1031
55	6.4900	6.4100	6.1735	6.8310	6.3251	6.0827	6.4863	5.9582	5.5990	7.2896
60	5.5067	6.1488	5.6803	5.9069	5.4028	5.0007	5.6946	4.8196	4.5118	5.8153
65	4.2765	5.1663	4.6394	4.6835	4.2007	3.8564	4.4888	3.6267	3.5242	4.2528
70	3.6395	3.9448	3.4095	3.9071	3.2113	3.2982	3.5914	3.1538	2.9693	4.6158
75	2.4408	1.9897	2.1003	2.5915	1.9929	2.1690	2.2597	2.0738	1.9688	3.7028
80	1.5176	1.5716	1.3867	1.7398	1.2750	1.2769	1.4223	1.2638	1.2293	2.0643
85	0.7051	0.7865	0.6923	0.8184	0.5897	0.5904	0.6556	0.6183	0.6094	0.8948
total	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
m.ag	36.3445	36.7824	35.6181	37.3506	35.1352	34.9591	36.1795	34.3026	33.4510	39.9118
sha	100.0000	2.9705	7.4067	16.4596	18.5919	7.1936	15.6312	9.9748	5.3741	16.3976
lam	1.015746	0.992738	1.016625	0.999788	1.025099	1.037520	1.010911	1.011489	1.046309	0.996053
r	0.003125	-0.001458	0.003298	-0.000042	0.004958	0.007367	0.002170	0.008130	0.009054	-0.000791

stable equivalent to original population

age	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	306372.	2284.	19810.	16390.	45480.	27328.	28355.	78506.	72157.	16162.
5	295200.	2253.	19166.	16183.	43869.	26208.	27449.	75185.	68965.	15723.
10	287974.	2167.	18570.	15892.	42717.	25658.	26673.	73454.	66918.	15874.
15	280441.	2045.	17627.	15329.	41206.	25098.	26155.	71482.	63581.	17919.
20	272613.	1998.	16912.	14991.	39901.	24455.	25957.	68670.	59486.	20243.
25	264858.	1991.	16629.	15000.	39014.	23890.	25593.	65520.	56244.	20978.
30	257187.	1967.	16302.	14945.	38046.	23264.	25040.	62943.	53750.	20929.
35	249239.	1942.	15867.	14762.	36988.	22530.	24331.	60646.	51686.	20487.
40	240606.	1909.	15331.	14519.	35794.	21727.	23496.	58257.	49644.	19928.
45	230916.	1849.	14712.	14128.	34414.	20829.	22544.	55757.	47418.	19266.
50	219397.	1762.	13995.	13569.	32738.	19773.	21461.	52924.	44750.	18429.
55	205526.	1658.	13136.	12875.	30638.	18546.	20124.	49475.	41735.	17380.
60	187625.	1516.	12009.	11866.	27882.	16938.	18320.	45156.	38094.	15838.
65	163227.	1309.	10467.	10358.	24094.	14763.	15864.	39400.	33229.	13743.
70	131380.	1042.	8412.	8347.	19120.	11911.	12652.	31899.	26967.	11030.
75	93770.	732.	5941.	5959.	13363.	8509.	8895.	22990.	19505.	7877.
80	55253.	417.	3484.	3497.	7629.	5015.	5114.	13836.	11571.	4691.
85	31675.	212.	2027.	1933.	4000.	2868.	2739.	8292.	6863.	2740.
total	3773210.	29051.	240398.	220544.	556890.	339210.	360764.	934591.	812566.	279196.

percentage distribution

age	total	burgenl.	carinth.	lower a.	upper a.	salzburg	styria	tyrol	vorarlb.	vienna
0	8.1197	7.8630	8.2405	7.4315	8.1668	8.0268	7.8598	8.4000	8.8802	5.7886
5	7.8236	7.7542	7.9725	7.3378	7.8774	7.7263	7.6087	8.0661	8.4873	5.6317
10	7.6307	7.4599	7.7249	7.2058	7.6707	7.5641	7.3936	7.8595	8.2353	5.6856
15	7.4334	7.0382	7.3325	6.9507	7.3992	7.3989	7.2498	7.6484	7.8247	6.4181
20	7.2250	6.8765	7.0351	6.7975	7.1650	7.2095	7.1950	7.3476	7.3207	7.2503
25	7.0194	6.8520	6.9172	6.8012	7.0056	7.0428	7.0942	7.0106	6.9218	7.5138
30	6.8161	6.7703	6.7814	6.7766	6.8319	6.8583	6.9408	6.7348	6.6149	7.4961
35	6.6055	6.6863	6.6001	6.6935	6.6419	6.6818	6.7442	6.4890	6.3609	7.3378
40	6.3767	6.5713	6.3775	6.5831	6.4275	6.4052	6.5129	6.2335	6.1095	7.1377
45	6.1199	6.3642	6.1197	6.4062	6.1797	6.1403	6.2491	5.9659	5.8355	6.9004
50	5.8146	6.0649	5.8214	6.1526	5.8780	5.8290	5.9488	5.6628	5.5073	6.6006
55	5.4470	5.7058	5.4642	5.8377	5.5016	5.4675	5.5783	5.2937	5.1362	6.2108
60	4.9726	5.2192	4.9954	5.3805	5.0068	4.9933	5.0782	4.8316	4.6888	5.6727
65	4.3260	4.5055	4.3542	4.6966	4.3265	4.3523	4.3972	4.2157	4.0894	4.9245
70	3.4819	3.5857	3.4994	3.7846	3.4334	3.5113	3.5070	3.4131	3.3187	3.9508
75	2.4851	2.5192	2.4713	2.7019	2.3996	2.5086	2.4655	2.4599	2.4004	2.8212
80	1.4644	1.4384	1.4498	1.5857	1.3699	1.4783	1.4176	1.4804	1.4240	1.6801
85	0.8395	0.7294	0.8433	0.8765	0.7183	0.8456	0.7592	0.8873	0.8445	0.9813
total	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
m.ag	35.5151	36.0391	35.4795	36.8390	35.3721	35.6499	35.8108	35.0831	34.4271	38.7978
sha	100.0000	0.7699	6.3712	5.8450	14.7591	8.9900	9.5612	24.7691	21.5351	7.3994
lam	1.022995	1.022994	1.022995	1.022993	1.022991	1.022992	1.022995	1.022995	1.022999	1.022994

$

APPENDIX D *Continued.*

Multiregional population projection for the four regions.

year 1971

population

age	total	east	south	central	west
0	593578.	222805.	145375.	144857.	80541.
5	643388.	241862.	159800.	157549.	84177.
10	585366.	217958.	152593.	142751.	72064.
15	511456.	190694.	133738.	124561.	62463.
20	528888.	221841.	122376.	118741.	65930.
25	486315.	220003.	104019.	103772.	58521.
30	503199.	223552.	111358.	110139.	58150.
35	406906.	175323.	92753.	92482.	46348.
40	455073.	203445.	106657.	97845.	47126.
45	480909.	223971.	111322.	100838.	44778.
50	339397.	157548.	77893.	72674.	31282.
55	413520.	199890.	92442.	82798.	38390.
60	446838.	228170.	94962.	84714.	38992.
65	402232.	211936.	82319.	74962.	33015.
70	305467.	165663.	61253.	55077.	23474.
75	195026.	107403.	38131.	34859.	14633.
80	105529.	58835.	20691.	17851.	8152.
85	53316.	30222.	10146.	8740.	4208.
total	7456403.	3301121.	1717828.	1625210.	812244.

percentage distribution

age	total	east	south	central	west
0	7.9606	6.7494	8.4627	8.9131	9.9159
5	8.6287	7.3267	9.3024	9.6941	10.3635
10	7.8505	6.6025	8.8829	8.7835	8.8722
15	6.8593	5.7766	7.7853	7.6643	7.6902
20	7.0931	6.7202	7.1239	7.3062	8.1170
25	6.5221	6.6665	6.0553	6.3851	7.2049
30	6.7485	6.7720	6.4825	6.7769	7.1592
35	5.4571	5.3110	5.3994	5.6905	5.7062
40	6.1031	6.1629	6.2088	6.0205	5.8020
45	6.4496	6.7847	6.4804	6.2046	5.5129
50	4.5518	4.7726	4.5344	4.4717	3.8513
55	5.5458	6.0552	5.3813	5.0946	4.7264
60	5.9927	6.9119	5.5280	5.2125	4.8005
65	5.3945	6.4201	4.7920	4.6125	4.0647
70	4.0967	5.0184	3.5657	3.3889	2.8900
75	2.6156	3.2535	2.2197	2.1449	1.8016
80	1.4153	1.7823	1.2045	1.0984	1.0036
85	0.7150	0.9155	0.5906	0.5378	0.5181
total	100.0000	100.0000	100.0000	100.0000	100.0000
m.ag	36.0701	39.0059	34.4790	33.7754	32.0950
sha	100.0000	44.2723	23.0383	21.7962	10.8932

year 1991

population

age	total	east	south	central	west
0	624844.	210663.	154579.	164571.	95031.
5	599205.	206202.	149593.	155703.	87708.
10	563166.	199485.	139604.	143518.	80759.
15	533580.	198667.	126533.	132035.	76344.
20	577997.	221602.	132831.	151568.	81996.
25	631807.	243425.	145842.	155840.	86699.
30	572146.	218959.	138312.	140804.	74071.
35	497263.	189177.	123107.	122431.	62548.
40	510388.	214579.	115131.	116602.	64077.
45	463202.	209069.	97818.	100240.	56074.
50	468472.	207618.	102689.	103554.	54611.
55	365629.	157149.	82648.	83738.	42094.
60	385592.	171618.	89768.	83605.	40601.
65	367658.	169966.	84757.	77742.	35194.
70	218499.	100673.	49916.	46927.	20983.
75	201553.	96973.	44601.	40163.	19816.
80	139933.	71659.	29123.	25962.	13189.
85	81377.	43564.	15978.	14192.	7643.
total	7802511.	3131048.	1822830.	1849196.	999436.

percentage distribution

age	total	east	south	central	west
0	8.0082	6.7282	8.4802	8.8996	9.5085
5	7.6796	6.5857	8.2066	8.4200	8.7757
10	7.2203	6.3712	7.6587	7.7611	8.0804
15	6.8386	6.3451	6.9416	7.1401	7.6387
20	7.4078	7.0776	7.2870	8.1970	8.2043
25	8.0975	7.7746	8.0008	8.4275	8.6748
30	7.3328	6.9932	7.5877	7.6143	7.4113
35	6.3731	6.0420	6.7536	6.6208	6.2583
40	6.5413	6.8533	6.3160	6.3055	6.4113
45	5.9366	6.6773	5.3663	5.4208	5.6105
50	6.0041	6.6309	5.6335	5.6000	5.4642
55	4.6860	5.0191	4.5341	4.5283	4.2118
60	4.9419	5.4812	4.9247	4.5212	4.0623
65	4.7121	5.4284	4.6498	4.2041	3.5213
70	2.8004	3.2153	2.7384	2.5377	2.0995
75	2.5832	3.0972	2.4468	2.1719	1.9827
80	1.7934	2.2886	1.5977	1.4040	1.3196
85	1.0430	1.3914	0.8766	0.7675	0.7647
total	100.0000	100.0000	100.0000	100.0000	100.0000
m.ag	35.6824	38.2163	34.8192	33.8860	32.6428
sha	100.0000	40.1287	23.3621	23.7000	12.8092
lam	1.015273	0.990495	1.017211	1.036216	1.054830
r	0.003032	-0.001910	0.003413	0.007115	0.010676

year 2021

population

age	total	east	south	central	west
0	650702.	195297.	155299.	183354.	116751.
5	633679.	194572.	151837.	176750.	110519.
10	620134.	195155.	148241.	170936.	105633.
15	605447.	197450.	141657.	163963.	102378.
20	596985.	201795.	136444.	159261.	99485.
25	599279.	207309.	136011.	158921.	97038.
30	600541.	211384.	137007.	158261.	93889.
35	579172.	207529.	133207.	150944.	87492.
40	538499.	197498.	123616.	137969.	79416.
45	502232.	190797.	113091.	125703.	72640.
50	531366.	205330.	118757.	131847.	75432.
55	559078.	216154.	126707.	139104.	77112.
60	474484.	181693.	112919.	117553.	62318.
65	368582.	139857.	90021.	91205.	47499.
70	313459.	130745.	72059.	71843.	40811.
75	209992.	94056.	43793.	45262.	25352.
80	130737.	57984.	27960.	28252.	16540.
85	60934.	26575.	13184.	13037.	8138.
total	8575301.	3051180.	1979812.	2224136.	1320174.

stable equivalent to original population

age	total	east	south	central	west
0	355613.	44381.	52304.	98835.	160093.
5	343114.	43525.	50668.	95299.	153623.
10	335095.	43212.	49284.	93046.	149554.
15	326800.	44697.	47810.	90184.	144109.
20	318077.	46857.	46858.	87355.	137008.
25	309421.	47667.	46149.	85198.	130408.
30	300847.	47485.	45227.	82976.	125159.
35	291927.	46678.	44039.	80586.	120625.
40	282166.	45638.	42604.	77933.	115990.
45	271163.	44260.	40945.	74903.	111354.
50	257998.	42415.	39016.	71272.	105295.
55	241938.	40068.	36641.	66804.	98426.
60	221025.	36765.	33449.	60891.	89920.
65	192358.	32001.	29061.	52759.	78527.
70	154771.	25741.	23261.	42078.	63691.
75	110363.	18385.	16395.	29583.	46000.
80	64988.	10874.	9491.	17029.	27594.
85	37017.	6180.	5212.	9119.	16507.
total	4414681.	666827.	658413.	1215859.	1873582.

percentage distribution

age	total	east	south	central	west
0	7.5881	6.4007	7.8441	8.2438	8.8436
5	7.3896	6.3759	7.6693	7.9469	8.3715
10	7.2316	6.3950	7.4876	7.6842	8.0066
15	7.0604	6.4713	7.1551	7.3720	7.7549
20	6.9617	6.6137	6.8916	7.1606	7.5357
25	6.9884	6.7944	6.8699	7.1453	7.3504
30	7.0031	6.9279	6.9202	7.1156	7.1119
35	6.7540	6.8016	6.7293	6.7866	6.6273
40	6.2797	6.4728	6.2438	6.2033	6.0155
45	5.8567	6.2532	5.7122	5.6518	5.5023
50	6.1965	6.7295	5.9984	5.9280	5.7133
55	6.5196	7.0843	6.4000	6.2543	5.8411
60	5.5331	5.9549	5.7035	5.2853	4.7224
65	4.2982	4.5837	4.5469	4.1007	3.5979
70	3.6554	4.2851	3.6387	3.2301	3.0913
75	2.4488	3.0826	2.2120	2.0351	2.0362
80	1.5246	1.9004	1.4123	1.2703	1.2529
85	0.7106	0.8710	0.6659	0.5861	0.6155
total	100.0000	100.0000	100.0000	100.0000	100.0000
m.ag	36.4201	38.6981	36.0290	35.0670	34.0215
sha	100.0000	35.5810	23.0874	25.9365	15.3951
lam	1.015124	0.995868	1.012336	1.028716	1.042817
r	0.003002	-0.000828	0.002452	0.005662	0.008385

percentage distribution

age	total	east	south	central	west
0	8.0552	6.6555	7.9439	8.1289	8.5448
5	7.7721	6.5272	7.6954	7.8380	8.1994
10	7.5905	6.4802	7.4853	7.6527	7.9622
15	7.4026	6.7029	7.2615	7.4173	7.6916
20	7.2050	7.0268	7.1169	7.1846	7.3125
25	7.0089	7.1483	7.0091	7.0073	6.9603
30	6.8147	7.1210	6.8690	6.8245	6.6802
35	6.6126	7.0000	6.6886	6.6279	6.4382
40	6.3915	6.8440	6.4707	6.4097	6.1908
45	6.1423	6.6374	6.2188	6.1605	5.9274
50	5.8441	6.3608	5.9257	5.8619	5.6200
55	5.4803	6.0087	5.5650	5.4944	5.2534
60	5.0066	5.5135	5.0803	5.0080	4.7994
65	4.3572	4.7990	4.4138	4.3400	4.1913
70	3.5058	3.8602	3.5328	3.4608	3.3994
75	2.4999	2.7570	2.4901	2.4331	2.4552
80	1.4721	1.6307	1.4415	1.4005	1.4728
85	0.8385	0.9267	0.7916	0.7500	0.8810
total	100.0000	100.0000	100.0000	100.0000	100.0000
m.ag	35.6225	37.7578	35.7940	35.4457	34.9170
sha	100.0000	15.1048	14.9142	27.5413	42.4398
lam	1.021651	1.021652	1.021651	1.021651	1.021652
r	0.004284	0.004284	0.004284	0.004284	0.004284

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(continued overleaf)

NATIONAL CASE STUDIES *(continued)*

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