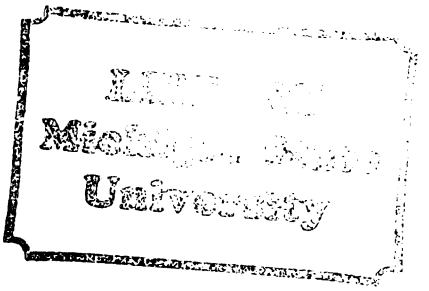

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THE CHANGING DEMOGRAPHIC CHARACTERISTICS OF THE RURAL POPULATION OF GREECE

presented by

George Argyrios Daoutopoulos

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of the requirements for

MA degree in Sociology

J. Allan Beegle
Major professor

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THE CHANGING DEMOGRAPHIC CHARACTERISTICS OF THE RURAL POPULATION OF GREECE

By

George Argyrios Daoutopoulos

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ABSTRACT

THE CHANGING DEMOGRAPHIC CHARACTERISTICS
OF THE RURAL POPULATION OF GREECE

By

George Argyrios Daoutopoulos

This study is concerned with the changes that have taken place in the demographic characteristics of the rural population of Greece, mainly during the period 1950 to 1976.

The analysis was based on official statistics collected through the censuses and the vital registration system that were further analyzed for the purposes of this study. The longitudinal analysis of the demographic characteristics of the rural population was carried out with a parallel analysis contrasting with the same characteristics of the urban population of the country.

The main finding of the study is that migration, both external and internal, was a major demographic characteristic of the rural population and became the number one component in accounting for differential growth rates and for changes in the composition of the population between the rural and urban ares.

Miracles are many

but man is the greatest.

SOPHOCLES (Antigone, verse 302)

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I. INTRODUCTION

While modern Greece was born in 1821 when the revolution against the Ottoman Empire was declared by a handful of brave men, its territorial integration was not accomplished until after the second World War. During this 160 year period, several events greatly affected the population of the newborn Greek State. A series of wars followed by famines and infectious diseases, along with heavy outmigration to the USA occured during the first two decades of the present century, the influx of approximately 1.5 million Greek refugees from Asia Minor in 1922, and a new outmigration stream to European countries (especially to West Germany in the 1960's), brought major changes in the demographic characteristics of the population.

It was not until the beginning of the 50's that the modern Greek State reached political stability and started, along with other nations, on the path of development.

1. The Main Objectives

The focus of this thesis is on the demographic characteristics of the rural population of Greece as they were shaped during the last three decades. This period was associated with a heavy rural exodus that recently caught the attention of many journalists and scholars, who mainly in short reports and sentimental captions tried to attract the attention of the Government to the implications of continuing depopulation of the rural areas of the country. Lack of a thorough consideration of the problem is the main characteristic of these reports. Only recently

(1980) the National Statistical Service of Greece (NSSG), under the supervision of Prof. Valaoras, published a systematic report on the demographic characteristics of the rural and urban population, providing for the first time very useful tables on various demographic components using the rural-urban dichotomy.

Thus, the main reason for not having complete elaborations of the rural population dynamics was the fact that the annually published vital statistics lacked the rural and urban place of residence distinction, plus other secondary reasons such as lack of resources for research in this area and inadequate personnel to deal with these problems.

It is hoped that the present study will provide some insight on the main rural population trends in Greece, by examining closely the main changes that have taken place in the demographic characteristics of that population.

2. Concepts and Definitions

Several concepts will be used in the analysis that follows, and although they are used throughout the world, the criteria used to define them vary making cross-national comparisons very difficult, if not impossible. Even within the same country there are variations over time that impede a longitudinal analysis.

Rural-Urban distinction: Rural and urban categories were employed by the NSSG, for the first time, in the publication of the results of the 1961 census. The only criterion used is based on the size of the population present in the largest settlement within the lower administrative unit (municipality) at the time of the census. Thus, urban population is defined as the population of a municipality with a settlement of 10,000 or

more inhabitants. On the other hand, rural is defined as the population of a municipality where the larger settlement is less than 2,000 inhabitants. Municipalities having a settlement with a population between 2,000 and 9,999 inhabitants are classified as semi-urban. Therefore the distinction employed is trichotomous rather than dichotomous.

In a recent publication (NSSG:1980) the statistical service employed a dichotomous distinction by merging the semi-urban with the rural category. This may be an indication that this distinction will be employed in the future. The present study employing data that define the rural population under the above mentioned two different base figures will clarify that in cases where the latter designation of the rural population is used (settlements up to 9,999 inhabitants) in order to avoid confusion insofar as possible.

The rural and urban distinction of the population, although associated with certain inconsistencies as is the case with every classification system invented by scholars, is still very useful since substantial differences still exist in various characteristics between the two and even the three segments of the population (rural, semi-urban, urban). The argument made by Lewis (1979:21) for W. Europe and N. America that "previous bases of distinction between town and country, such as population density, settlement size, and agricultural employment, are of little relevance today" do not hold true in the case of Greece. Lack of integration and differential regional development in an area isolated by physical barriers (mountains, rivers and sea waters) helped maintain a pluralism of norms, attitudes and values not only between the rural and urban population but even within the rural population.

Family-Household: The NSSG, instead of the family, uses the concept of the

household. A household is defined as: a) Any person living alone in a separate housing unit or occupying a room as a lodger, provided that, in this case, he does not share meals with the family he is staying with, and b) A group of two or more persons (related or not) living together in the same housing unit and sharing meals (Statistical Yearbook 1978, p. 13). Thus, the menbers of a household need not be related by blood while such relation is necessary to define whether a person is a member of a particular family.

Emigration-Immigration: Data on emigration and immigration are provided by the Passport Control Service, which compiles the relative data through the arrival and departure cards filled by Greek citizens crossing the borders. According to the NSSG emigration includes only persons emigrating abroad, distinguished as "permanently" or "temporarily" emigrating. "Permanent migrants" are defined as those Greek citizens who are permanently residing in Greece and who go abroad to settle there for a period exceeding one year. On the other hand, "temporal migrants" include Greek citizens, permanently residing in Greece, who a) go abroad for less than one year to work in and be paid by the destination country, and b) go abroad for "signing on". In the present work only data on permanent emigration have been used in the analysis of the phenomenon of external migration.

Immigrants or repatriates are those Greek citizens who, after having permanently and continually stayed in a foreign country for more than one year, returned to Greece for a permanent stay, or at least for a stay exceeding one year. Immigration data have been collected since 1968. From october 1977, due to changes in the entries of the "arrival" and "departure" card filled by the Greek citizens, no data are collected on

emigration and immigration of Greek citizens. It is probable that from now on the statistical service will rely totally on information provided by the population census, although such procedure cannot totally replace the valuable information collected through the frontier statistics.

II. DEMOGRAPHIC CHARACTERISTICS AND CHANGE

Shryock and Siegel (1976: 1) define demography in its narrowest sense; what they call "formal demography" is concerned "with the size, distribution, structure, and change of populations". On the other hand Weller and Bouvier (1981: 7), using the wider sense of demography, define it as "the study of:

(1) the size, composition, and distribution of the population in a given area;

(2) changes in population size, composition, and distribution;

(3) the components of these changes;

(4) the factors that affect these components; and

(5) the consequences of changes in population size, composition, and distribution or in the components themselves".

This latter definition will be used in the following chapters in an effort to study the size, composition, and distribution of the rural population in Greece during the last three decades. The study will focus on the changes that have taken place, the factors responsible for those changes and the consequences, present and future, not only for the rural population but for the entire population of the country.

Of course the latter objectives cannot be accomplished by relying only on aggregate data from the censuses or vital registration statistics not only because they are incoplete and/or the level of analysis is insufficient, but mainly because they are too general and lack the detail information that can acchieved only through special research surveys. Such research is lacking in Greece and therefore the insight into demo-

graphic problems associated with the rural population is greatly impeded.

A. Population and Household Size

1. Population Size

By 1971 the rural population accounted for slightly more than 3 million people, the lowest figure reported from the last five censuses. The highest, 3.8 million, was reached in 1940, just a few months before the declaration of the Greek-Italian war which was the beginning of a series of wars that ended with the civil war. All of the wars caused enormous human and material losses and affected the dynamics of both the rural and urban population. While the total population managed to keep increasing at a lower rate in each successive census, the rural population could not keep pace for various reasons which will be analyzed at a later point. As a result, the rural population of the country decreased from 54.4% of the total population in 1928 to 35.2% in 1971 (Table 1). Of course, it is probably less than 35.2% but unfortunately the data from the last census taken on April 5th, 1981 are not yet available.

The picture changes drastically if you break down the statistics by taking into consideration the geographic region. From table 2 one can easily conclude that Greece is more rural in each one of its geographic regions than it is as a whole. This not only was true in 1951 and 1961 but in 1971 as well. With the exception of Macedonia which more closely resembled the national picture, all other regions (and even the region of the Rest of Central Greece) in the last censuses were more rural than urban. Specifically, in 1951 the rural population in every region, with the exception of Macedonia, formed the majority of the total population. In some areas e.g. Epirus, Ionian Islands, Crete, and Peloponnesos the

rural population accounted for more than two thirds of the total population in each area. In 1961, the picture had not changed substantially. There was a downward trend in the rural populations in all areas, with the exception of the Agean Islands and Thrace, where a small increase took place. However, in all of the regions (except for Macedonia), the rural population was a majority of the total. In the next decade the downward trend continued and as a result, by 1971 in three regions (Macedonia, the Rest of Central Greece, and Thessaly) the rural population accounted for less than 50 per cent of the total population in each area. At the same time, the rural population in Epirus and the Ionian Islands accounted for two thirds of the total population.

The calculation of the annual rates of growth between the last three censuses, namely 1951-1961, 1961-1971, and 1951-1971 reveals some interesting trends which are presented in table 3.

Thus, during the first period, 1951-1961, although the total population increased at an annual rate of .1% the rates of growth in the particular regions varied not only in size, but in direction as well. In four regions (Ionian Islands, Peloponnesos, Crete and Agean Islands) the rural population decreased at an annual rate of -1.2, -.6, -.4 and -.3%, respectively. The Rest of Central Greece region remained almost the same (.05%) but increased in the remaining four regions at an annual rate ranging from .3% to .8%, which is below the annual rate of growth for the total population (.95%), as shown in table 3. During the next decade, 1961 to 1971, the downward trend entirely swept over the regions at a nearly equal pace which resulted in a decrease of the entire rural population. The annual rate of change in the rural population was -1.7% (table 3) while the total population continued to increase although at

a smaller annual rate (.44%) as shown in tables 1 and 3 . This slowdown was the result of heavy rural exodus to urban centers in Athens and Thessaloniki and to the industrialized European countries.

Table 1. Rural and total population and intercensus growth rates during the last five censuses, 1928-1971.

Census Year	Rural Population			Total Population		
	Number	%	Growth rate(1)	Number	%	Growth rate(1)
1928	3,373,281	54.4		6,204,684		
			1.10			1.42
1940	3,847,134	52.4		7,344,860		
			- .55			.35
1951	3,622,619	47.5		7,632,801		
			.14			.95
1961	3,674,592	43.8		8,388,553		
			-1.74			.44
1971	3,081,731	35.2		8,768,641		
1928-1971			- .21			.81

SOURCE: NSSG, Statistical Yearbook of Greece 1978, p. 18 and calculations by the author.

(1) The annual intercensus rate of growth was calculated using the formula:

$$r = \left(\sqrt[t]{\frac{Pt}{Po}} - 1\right)$$

Where,

Po= the population in time period o

Pt= the population in time period t

t = the number of years between time periods o and t

r = the annual rate of growth

Table 2. Rural population as a percentage of the total population in the various geographic regions, and intercensus change during the last three censuses.

Geographic Region	Census:			Intercensus Change:		
	1951	1961	1971	1951/61	1961/71	1951/1971
Rest of Central Greece*	58.0	54.5	45.8	-3.5	-8.7	-12.2
Peloponnesos	65.5	63.7	57.8	-1.8	-5.9	- 7.7
Ionian Islands	71.8	68.7	65.6	-3.1	-3.1	- 6.2
Epirus	76.0	73.4	68.1	-2.6	-5.3	- 7.9
Thessaly	55.7	54.1	48.4	-1.6	-5.7	- 7.3
Macedonia	47.3	46.1	39.0	-1.2	-7.1	- 8.3
Thrace	59.5	60.4	57.9	.9	-2.5	- 1.6
Agean Islands	52.7	56.5	53.2	3.8	-3.3	.5
Crete	69.6	64.0	55.7	-5.6	-8.3	-13.9
Total Greece	47.7	43.8	35.1	-3.9	-8.7	-12.6

SOURCE: Calculated by the author.

(*) Excluding the Metropolitan area of Athens

Table 3. Annual intercensus rates of growth of the rural population in the various geographic regions during the last three censuses.

Geographical Regions		Intercensus Period:		
		1951-1961	1961-1971	1951-1971
Rest of Central Greece		.053	-1.52	- .73
Peloponnesos		- .58	-2.00	-1.29
Ionian Islands		-1.16	-1.86	-1.51
Epirus		.30	-2.01	- .86
Thessaly		.72	-1.62	- .45
Macedonia		.80	-1.66	- .43
Thrace		- .32	-1.91	-1.12
Crete		- .39	-1,93	-1.16
Total:	Rural Population	.10	-1.74	- .83
	Total Population	.95	.44	.70

SOURCE: Calculated by the author.

2. Family (Household) Size

Due to the fact that statistical data are not available for families but for households, our analysis will be restricted to changes which took place within the rural household rather than the rural family. In this case we are losing valuable information about the patriarchal families (families in which married children are living in the same housing unit along with their parents and unmarried brothers and sisters). These families are of great interest to rural sociologists, since such families follow a more traditional life pattern. Of course, during the last few decades the developments which took place in rural areas resulted in a rapid decrease in the number of patriarchal families. Unfortunately, we lack appropriate statistics to pinpoint directly, this movement. As a close approximation and a rather valid indicator, we have used the breakdown of households according to number of members as presented in table 4.

It is very clear from table 4 that the rural household became progressively smaller during the last three censuses. While the total number of rural households increased by 4.5% during the period 1951 to 1971, households with 1,2,3 or 4 members increased, and those with 5 or more members decreased by rates varying from -8.8% to -81.9% for the same period. As a result, the average size of the rural household has decreased from 4.45 members in 1951 to 3.57 in 1971, as shown in table 5.

Although the size of the rural household became progressively smaller during the last three censuses it was still greater in comparison with the urban household. The difference between them had the tendency to become smaller and smaller (table 6).

Of course this tendency toward a smaller household in rural areas is not due entirely to the fact that young couples now tend to live in separate house more often than before. Table 7 confirms that the proportion of households sharing their dwelling decreased drastically in both rural and urban areas and even became slightly lower in rural areas by 1971 , namely 4.2% compared to 4.8% in urban areas. It is also due to the fact that some members, especially from oversized rural households, migrated to urban areas and abroad. Furthermore, changes in childbearing patterns now favor smaller families. Unfortunately, it is difficult, if not impossible, to separate the three different components from the overall change without appropriate statistical information.

Table 4. Distribution of Households living in rural areas according to their number of members, during the last three censuses.

Number of Household Members	1951 census		1961 census		1971 census		Percent Change		
	Number	%	Number	%	Number	%	1951-1961	1961-1971	1951-1971
1	61,868	7.6	76,887	8.6	86,416	10.1	24.3	12.4	39.7
2	111,310	13.7	137,428	15.4	186,080	21.9	23.5	35.4	67.2
3	128,526	15.8	161,378	18.1	161,112	18.9	25.6	- .2	25.4
4	143,189	17.6	179,031	20.0	182,092	21.4	25.0	1.7	27.2
5	132,163	16.2	142,778	16.0	120,516	14.2	8.0	-15.6	-8.8
6-7	169,355	20.8	148,657	16.6	97,884	11.5	-12.2	-34.2	-42.2
8-9	53,709	6.6	38,170	4,3	14,260	1.7	-28.9	-62.6	-73.4
10 and over	13,783	1.7	9,261	1.0	2,500	.3	-32.8	-73.0	-81.9
T o t a l	813,903	100.0	893,590	100.0	850,860	100.0	9.8	-4.8	4.5

SOURCE: NSSG, Results of the 1951 Population Census, p. CXCV and 1961 Census, p. 184, and Statistical Yearbook of Greece, 1978, p. 35

Table 5. Number of Households, members, and average size of household in rural areas, during the last three censuses.

Census	Number of Households	Number of Members	Average Number of Members
1951	813,903	3,622,619	4.45
1961	893,593	3,674,592	4.11
1971	850,860	3,033,952	3.57

SOURCE: NSSG, Results of the 1951, 1961 and 1971 Population Census

Table 6. Mean and Median size of households in rural and urban areas, during the last three censuses.

Census Year	Rural Areas	Urban Areas	Difference (rural-urban)
		Mean Size	
1951	4.47	*	*
1961	4.11	3.70	.41
1971	3.57	3.24	.33
		Median Size	
1951	3.74	*	*
1961	3.40	3.86	- .46
1971	2.95	2.70	.25

SOURCE: Calculated by the author

* Data were not available

Table 7. Distribution of households living in regular dwellings and sharing or not the dwelling, in rural and urban areas. 1951, 1961, and 1971 census.

Census Year	Rural Areas				Urban Areas			
	Share		Do not Share		Share		Do not Share	
	Number	%	Number	%	Number	%	Number	%
1951	*	*	*	*	*	*	*	*
1961	75,188	8.8	778,618	91.2	154,183	16.6	776,995	83.4
1971	35,412	4.2	808,608	95.8	65,508	4.8	1,293,560	95.2

SOURCE: NSSG. Statistical Yearbook of Greece, 1968, p.53 and 1978, p. 35

* Data were not available

B. Ascribed Characteristics

1. Age Composition

Traveling in the country, and especially through the rural mountaneous areas, one can hardly miss noticing that the majority of the people living in those areas are either young children or elderly people 65 years of age and older. Adults in the productive ages are becoming fewer.

The same picture is revealed by the statistical data from the last three censuses which are presented in tables 8, 9, and 10. Namely, persons 65 years of age in rural areas outnumber the same group in urban areas by 1.4% in 1951, 1.6% in 1961 and 3.8% in 1971. Also, children up to 14 years of age in rural areas outnumber the same group in urban areas by 9.7% in 1951, 6.8% in 1961 and 4.8% in 1971. It is interesting to note that while the difference between rural and urban areas is increasing progressively for the older group (65 and over), it is decreasing progressively for the younger group (up to 14 years of age). On the other hand, the age group 15 to 44 years in urban areas overwhelmingly outnumbers the same group in rural areas at all three census dates (9.7% in 1951, 7.4% in 1961, and 9.2% in 1971). Further, there is no evidence of an increasing trend but rather of a stabilizing one, since the differences fluctuate around the same figures.

It is logical at this point to ask: What are the factors responsible for the differences in the age composition of the population in rural and urban areas? The larger proportions of children in rural areas can be attributed to higher fertility rates among the rural population of the country, while the smaller proportions of persons between the ages of 15 to 44 years in rural areas is the result of the selectivity process of

migration (internal and external) and serves to remove many within that age group.

As to whether the population is becoming older or not, the calculation of the median age for the two populations in each of the last three censuses reveals some interesting trends (table 11). First, both populations became older as a result of lower fertility rates and higher life expectancy, due to improvements in health conditions, better nutrition and other related factors. Second, while the rural population was younger than the urban by 4.1 years in 1951 (median age for rural: 18.83 years and urban 22.94 years), the difference was halved by 1961 (2.0 years). By 1971 it was reversed by the same amount, thus making the rural population older than the urban (median age for rural 29.36 years as compared to 27.33 years for the urban population).

As a result of these changes, the burden for adults increased in rural areas as fewer and fewer people had to support more and more younger and older age groups.(1) The age dependency ratios (table 12) revealed that in 1951 every hundred adults aged 15 to 64 years had to support 68 younger and older persons in rural areas but only 41 in urban areas, i.e. 26.5 additional persons. By 1971, the age dependency ratio continued to increase in both areas but at a faster pace for urban areas (70.1 for rural and 48.3 for urban areas) thus lowering the difference to 21.8 persons. Taking into account the fact that the rural income is less than the urban, one can easily realize how much the rural family must struggle in order to provide its members an adequate level of living and at the same time, to resist strong economic "push" factors in rural areas.

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(1) Under the assumption that migrant remittances did not offset their previously generated income in these rural areas.

Table 8. Rural and urban population classified by sex and age-groups. 1951 census

Age Groups (Years)	Rural Areas		Urban Areas	
	Number	%	Number	%
Both Sexes (1)	3,605,498	100.0	2,789,474	100.0
Up to 14	1,191,260	33.0	648,597	23.3
15 - 24	683,243	19.0	603,984	21.7
25 - 44	872,004	24.2	871,125	31.2
45 - 64	594,756	16.5	499,740	17.9
65 and over	264,235	7.3	166,028	5.9
Males (1)	1,735,269	100.0	1,364,461	100.0
Up to 14	615,830	35.5	327,452	24.0
15 - 24	315,446	18.2	311,112	22.8
25 - 44	409,804	23.6	417,560	30.6
45 - 64	272,254	15.7	240,140	17.6
65 and over	121,719	7.0	68,197	5.0
Females (1)	1,870,229	100.0	1,425,013	100.0
Up to 14	575,430	30.8	321,145	22.5
15 - 24	367,581	19.7	292,872	20.6
25 - 44	462,200	24.7	453,565	31.8
45 - 64	322,502	17.2	259,600	18.2
65 and over	142,516	7.6	97,831	6.9

SOURCE: NSSG. Results of the Population-Housing Census of April 7, 1951. pp. 135-6

(1) Persons with not declared age have been substracted from totals.

Table 9. Rural and urban population classified by sex and age-groups. 1961 census (In thousands)

Age Groups (Years)	Rural Areas		Urban Areas	
	Number	%	Number	%
Both Sexes	3,657.2	100.0	3,641.5	100.0
Up to 14	1,096.6	30.0	844.5	23.2
15 - 24	539.7	14.8	616.7	16.9
25 - 44	959.4	26.2	1,146.1	31.5
45 - 64	731.7	20.0	764.9	21.0
65 and over	329.9	9.0	269.1	7.4
Males	1,770.8	100.0	1,787.7	100.0
Up to 14	562.4	31.8	432.8	24.2
15 - 24	242.5	13.7	334.1	18.7
25 - 44	464.5	26.2	538.6	30.1
45 - 64	356.3	20.1	367.3	20.6
65 and over	145.1	8.2	114.9	6.4
Females	1,886.4	100.0	1,853.7	100.0
Up to 14	534.2	28.3	411.7	22.2
15 - 24	297.2	15.8	282.6	15.3
25 - 44	494.9	26.2	607.5	32.8
45 - 64	375.3	19.9	397.6	21.4
65 and over	184.8	9.8	154.2	8.3

SOURCE: NSSG. Results of the Population-Housing Census of March 14, 1961. Sample Elaboration.

Table 10. Rural and urban population classified by sex and age-groups. 1971 census (1).

Age Groups (Years)	Rural Areas		Urban Areas	
	Number	%	Number	%
Both Sexes	3,082,988	100.0	4,665,836	100.0
Up to 14	864,184	28.0	1,081,716	23.2
15 - 24	371,796	12.1	781,844	16.8
25 - 44	763,640	24.8	1,382,120	29.6
45 - 64	676,672	21.9	981,668	21.0
65 and over	406,696	13.2	438,488	9.4
Males	1,498,568	100.0	2,280,288	100.0
Up to 14	444,180	29.7	555,880	24.4
15 - 24	178,252	11.9	409,976	18.0
25 - 44	364,408	24.3	665,120	29.2
45 - 64	330,236	22.0	461,584	20.2
65 and over	181,492	12.1	187,728	8.2
Females	1,584,420	100.0	2,385,548	100.0
Up to 14	420,004	26.5	525,836	22.0
15 - 24	193,544	12.2	371,868	15.6
25 - 44	399,232	25.2	717,000	30.1
45 - 64	346,436	21.9	520,084	21.8
65 and over	225,204	14.2	250,760	10.5

SOURCE: NSSG. Statistical Yearbook of Greece 1978. p. 39

(1) 25% Sample elaboration of the 1971 Population Census questionnaires.

Table 11. Median age of the rural and urban population during the last three censuses.

Census	Rural Population	Urban Population	Difference (Rural - Urban)
1951	18.83	22.94	-4.11
1961	23.31	25.31	-2.00
1971	29.36	27.33	2.03

SOURCE: Calculated by the author

Table 12. Age dependency ratios[1] for the rural and urban population during the last three censuses.

Census	Rural Population	Urban Population	Difference (Rural - Urban)
1951	67.7	41.2	26.5
1961	63.9	44.1	19.8
1971	70.1	48.3	21.8

SOURCE: Calculated by the author

(1) Calculated using the formula: $ADR = \frac{P_{0-14} + P_{65+}}{P_{15-64}} .100$

Where,

ADR= The Age Dependency Ratio

P_{0-14}= Number of persons under 15 years of age

P_{15-64}= Number of persons with age 15 to 64 years

P_{65+} = Number of persons 65 years of age and over

2. Sex Composition

In analyzing the sex composition of the rural population in contrast to urban, the sex ratio (the number of males per 100 females) was calculated for the three censuses and the various age groupings in which each of the populations was divided. According to the figures presented in table 13, the following statements can be made:

First, the sex ratio for the total urban population was higher than the sex ratio for the total rural in each of the last three censuses. The higher sex ratio for the urban population can be attributed to three factors: a) the sex selectivity of the internal rural to urban migration; b) the fact that high schools, colleges and other higher educational institutions with a predominate male population are located in urban areas and thus pull a substantial proportion of male population from the rural areas; and c) the fact that military installations most often are located within urban areas. The last two factors are supported by the fact that the sex ratio of the age group, 15 to 24 years, which includes persons attending high schools, colleges, and other higher educational institutions and males serving in the armed forces, shows a great excess of males for each of the three censuses. The relevant sex ratios for this age group in urban areas are: 106.2 for 1951, 118.2 for 1961 and 110.2 for 1971 ; in contrast the corresponding ratios for rural areas are: 85.8, 81.6, and 92.1

Further, the fact that "the sex ratio tends to be high at the very young ages and then tends to decrease with increasing age" (Shryock, and Siegel; 1976:108) is also observable in both populations and in each of the three censuses (see table 13).

Finally, although the rural population was younger than the urban according to the 1951 and 1961 censuses (see table 11), and had higher fertility rates, the sex ratios do not reflect higher values for the rural population. On the contrary the opposite was true. The explanation of course lies in the reason given in the first remark.

Table 13. Sex ratios in rural and urban areas for various age groupings during the last three censuses.

Age groups (Years)	Rural Areas			Urban Areas		
	1951	1961	1971	1951	1961	1971
Up to 14	107.0	105.3	105.8	102.0	105.1	105.7
15 - 24	85.8	81.6	92.1	106.2	118.2	110.2
25 - 44	88.7	93.9	91.3	92.1	88.7	92.8
45 - 64	84.4	94.9	95.3	92.5	92.4	88.8
65 and over	85.4	78.5	80.6	69.7	74.5	74.9
Total	92.8	93.9	94.6	95.8	96.4	95.6

SOURCE: Calculated by the author

C. Achieved Characteristics

Shryock and Siegel (1976:177) characterize education as "an important variable in accounting for demographic behavior" and also as "one of the social characteristics of persons covered frequently in population censuses and demographic surveys and occasionally in registration systems".

In the present chapter an analysis of the educational status will be carried out through measures of educational output with respect to the rural and urban population. An effort will be made to pinpoint the differences between the two segments of the Greek population and the changes that have taken place in each one during the last three post war censuses.

1. Educational Attainment

Early in the 50's a tremendous effort was made to improve the educational status of the Greek population. During the preceding decades, with wars succeeding one another, the education of the population, especially in the rural areas, was neglected. The establishment of primary schools in every locality, the enforcement by law of compulsory primary education and the progressive establishment of more and more high schools, technical and vocational schools, and higher educational institutions served to increase educational attainment at a rapid pace. These forces along with making education free of charge at all levels in 1963, and most of all, the high prestige placed upon education by all segments of Greek society resulted in an enormous increase in the educational attainment of the population as revealed by the last three censuses.

Of course, differences between the rural and urban population are obvious which even now reflect the shortcomings of the educational process in rural areas. Such areas were the last provided with educational opportunities, as well as the fact that the rural family could not easily afford the resources necessary to support its young members for a higher education available in the urban centers. Even now, college students argue that students from rural areas and low income families are handicapped in the attainment of college education since they cannot easily afford the expenses associated with food and lodging in the urban centers.

From tables 14 and 15 that present the educational attainment of the rural and urban population (aged 10 years and over) by sex during the 1961 and 1971 census (data on 1951 census were not presented using the rural-urban distinction), it is evident that progress towards more schooling has been made in all groups. Using these tables two measures (rates of university graduates and median years of school completed) have been calculated and presented in tables 16 and 17, respectively.

As shown in table 16 although the rate of university graduates increased in every area and in each sex group, differences among areas and among males and females in each area became even greater. Specifically, while the male rate exceeded the female by 5.3 units in 1961 in rural areas, and by 38.3 units in urban areas, in 1971 the same differences became 6.7 for rural areas and 41.8 for urban areas. At the same time for both sexes, urban areas had a higher rate of 25.2 units over the rural areas in 1961 which increased to 35.4 units in 1971. Of course, this is evidence for and a result of the fact that job opportunities requiring higher education were far greater in urban areas than in rural areas for the period being studied.

Median years of school completed (table 17) in rural areas by persons aged 10 years and over increased from 5.2 in 1961 to 6.0 in 1971, or by .8 years, compared with a .15 year increase in urban areas. As a result the differential in formal educational attainment between the two areas diminished from 1.1 years in 1961 to .45 in 1971. This was the result of the fact that while formal educational facilities were provided in rural areas much higher numbers of illiterates and elderly people were removed from rural areas through mortality than in urban areas. This argument is further supported by the fact that the improvement in educational attainment was much higher for females than males since the majority of illiterate people are predominately older and female, as is clear in the following chapter focusing on the illiterate population. Median years of school completed are still far from the respective measures of USA non-metropolitan population - 11.4 years in 1970 (Zuiches, and Brown, 1978:62).

2. Illiteracy

What has been accomplished by the education of the Greek people is clearly evident from the statistics on illiteracy, presented in tables 18 through 23.

While in the 1907 census, 60 out of 100 people were illiterate (80 out of 100 for females and 40 out of 100 for males), and of course the figure was much higher for rural areas. By 1971 the crude illiterate rate dropped dramatically to only 14. Of course by now the illiteracy rate is even lower as those people who are removed from the population through mortality are predominately illiterate. At the same time those who enter the population through natality obtain increasingly higher

formal education than their predecessors.

The fact that today illiterate people are the elderly in both rural and urban populations is evidenced in tables 19 and 20 where almost 40% are 65 years and older. Also they live predominately in rural areas (52.6%) compared to 34.6% in urban areas (table 21) and females (80% in rural areas and 77.5% in urban areas). The last fact is evidence of the role differentiation along sex lines that was practiced in the traditional Greek society, especially in rural areas.

Age-specific illiteracy rates for persons aged 10 years and over for rural and urban areas (tables 22 and 23) show how low the illiteracy rates have decreased in both areas, and how equalitarian the two sexes have become as to education in both areas. Further, the lower age-specific illiteracy rates for young groups in contrast to higher rates for old groups pinpoint further improvement which is expected to be achieved in the near future in both the rural and urban areas of the country.

Table 14. Distribution of the rural population aged 10 years and over, by educational level and sex in 1961 and 1971[1].

Educational level	Males		Females		Both Sexes	
	Number	%	Number	%	Number	%
1961 Census						
University graduates	12,001	.9	5,352	.4	17,353	.6
High School graduates	33,923	2.5	11,760	.8	45,683	1.6
Elementary School grad.	690,410	50.0	465,194	30.5	1,155,604	39.8
Not finished Elem. Sch.	639,618	46.3	1,035,326	67.9	1,674,944	57.6
Not declared	4,651	.3	6,779	.4	11,430	.4
T o t a l	1,380,603	100.0	1,524,411	100.0	2,905,014	100.0
1971 Census						
University graduates	14,604	1.2	7,008	.6	21,612	.9
High School graduates	36,324	3.0	16,792	1.3	53,116	2.1
Elementary School grad.	677,992	56.4	502,836	38.5	1,180,828	47.1
Not finished Elem. Sch.	443,428	36.9	660,608	50.6	1,104,036	44.0
Not declared	30,380	2.5	117,788	9.0	148,168	5.9
T o t a l	1,202,728	100.0	1,305,032	100.0	2,507,760	100.0

SOURCE: NSSG, Statistical Yearbook of Greece 1978, p. 133 and 1970, p. 81

(1) 25% sample elaboration of the 1971 population census questionnaires

Table 15. Distribution of the urban population aged 10 years and over, by educational level and sex in 1961 and 1971[1].

Educational level	Males		Females		Both Sexes	
	Number	%	Number	%	Number	%
1961 Census						
University graduates	76,056	5.1	20,095	1.3	96,151	3.1
High School graduates	237,677	15.9	202,235	12.7	439,912	14.3
Elementary School grad.	773,633	51.8	665,793	41.9	1,439,426	46.7
Not finished Elem. Sch.	399,905	26.8	691,299	43.5	1,091,204	35.4
Not declared	6,375	.4	9,926	.6	16,301	.5
T o t a l	1,493,646	100.0	1,589,348	100.0	3,082,994	100.0
1971 Census						
University graduates	124,672	6.5	48,156	2.4	172,828	4.4
High School graduates	364,528	19.2	355,876	16.6	700,404	17.8
Elementary School grad.	1,027,568	54.1	958,560	47.3	1,986,128	50.6
Not finished Elem. Sch.	358,456	18.9	611,836	30.2	970,292	24.7
Not declared	24,236	1.3	71,776	3.5	96,012	2.5
T o t a l	1,899,460	100.0	2,026,204	100.0	3,925,664	100.0

SOURCE: As in table 14

(1) See table 14

Table 16. Rates of university graduates among the rural and urban population aged 10 years and over by sex in 1961 and 1971.

Sex	Rural Areas		Urban Areas	
	1961	1971	1961	1971
Males	8.7	12.1	50.9	65.6
Females	3.4	5.4	12.6	23.8
Both sexes	6.0	8.6	31.2	44.0

SOURCE: Calculated by the author

Table 17. Median years of school completed by sex in the rural and urban areas during the 1961 and 1971 census. (Persons aged 10 years and over).

Sex	Rural Areas		Urban Areas	
	1961	1971	1961	1971
Males	6.07	6.19	6.44	6.55
Females	1.54	4.86	6.14	6.36
Both sexes	5.16	6.00	6.30	6.45

SOURCE: Calculated by the author

Table 18. Crude illiteracy rates of the total population aged 10 years and over, by sex: 1907 to 1971 censuses.

Census Year	Both sexes	Males	Females
1907	60.5	40.4	80.5
1920(1)	52.0	33.9	69.7
1928	41.8	23.8	59.3
1951	24.2	11.6	35.8
1961(2)	17.8	7.6	27.3
1971(2)	14.0	6.2	21.3

SOURCE: NSSG, Statistical Yearbook of Greece 1966, p. 79 and 1978, p. 132, and calculations by the author

(1) Within the boundaries established by the Lausanne Treaty of 1923

(2) Illiterate also include persons not reporting whether they know to read and write.

Table 19. Rural illiterate population by age and sex in 1971(1).

Age groups	Males		Females		Both Sexes	
	Number	%	Number	%	Number	%
10 - 19	3,808	3.6	4,372	1.0	8,180	1.5
20 - 29	4,820	4.5	10,740	2.5	15,560	2.9
30 - 44	21,760	20.4	77,220	18.1	98,980	18.6
45 - 64	36,644	34.3	162,704	38.1	199,348	37.3
65+	39,804	37.2	172,152	40.3	211,956	39.7
Total	106,836	100.0	427,188	100.0	534,024	100.0

SOURCE: NSSG, Statistical yearbook of Greece 1978, p. 133

(1) 25% sample elaboration of the 1971 population census questionnaires

Table 20. Urban illiterate population by age and sex in 1971[1].

Age groups	Males		Females		Both Sexes	
	Number	%	Number	%	Number	%
10 - 19	3,648	4.6	4,188	1.5	7,836	2.2
20 - 29	4,832	6.1	7,844	2.9	12,676	3.6
30 - 44	18,212	23.1	48,580	17.8	66,792	19.0
45 - 64	29,264	37.0	103,176	37.9	132,440	37.7
65+	23,064	29.2	108,840	39.9	131,904	37.5
Total	79,020	100.0	272,628	100.0	351,648	100.0

SOURCE: As in table 19

(1) See table 19

Table 21. Proportion of illiterate population aged 10 years and over by sex , in each area, and out of the total population in 1971[1].

Areas	Sex	Number	%	% out of total population	% of total population in each area
Rural	Males	106,836	20.0	10.5	
	Females	427,188	80.0	42.1	
	Both sexes	534,024	100.0		21.3
Semi - urban	Males	31,084	24.0	3.1	
	Females	98,424	76.0	9.7	
	Both sexes	129,508	100.0		15.5
Urban	Males	79,020	22.5	7.8	
	Females	272,628	77.5	26.8	
	Both sexes	351,648	100.0		9.0
Total		1,015,180		100.0	14.0

SOURCE: NSSG, Statistical Yearbook of Greece 1978

(1) 25% sample elaboration of the 1971 census questionnaires

Table 22. Crude and age-specific illiteracy rates of persons aged 10 years and over, by sex in the rural areas during the last three censuses.

Age (years)	Males			Females			Both Sexes		
	1951	1961	1971	1951	1961	1971	1951	1961	1971
10 - 19	*	*	1.5	*	*	1.7	*	*	1.6
20 - 29	*	*	3.3	*	*	6.7	*	*	5.1
30 - 44	*	*	7.3	*	*	23.8	*	*	15.9
45 - 64	*	*	11.1	*	*	47.0	*	*	29.5
65+	*	*	21.9	*	*	76.4	*	*	52.1
Crude rate	*	9.7	8.9	*	36.7	32.7	*	23.9	21.3

SOURCE: Calculated by the author

* Have not been calculated due to lack of published data

Table 23. Crude and age-specific illiteracy rates of persons aged 10 years and over, by sex in the urban areas during the last three censuses.

Age (years)	Males			Females			Both Sexes		
	1951	1961	1971	1951	1961	1971	1951	1961	1971
10 - 19	*	*	1.0	*	*	1.2	*	*	1.1
20 - 29	*	*	1.3	*	*	2.3	*	*	1.8
30 - 44	*	*	3.5	*	*	8.7	*	*	6.2
45 - 64	*	*	6.3	*	*	19.8	*	*	13.5
65+	*	*	12.3	*	*	43.4	*	*	30.1
Crude rate	*	5.4	4.2	*	17.9	13.5	*	11.8	9.0

SOURCE: Calculated by the author

* Have not been calculated due to lack of published data

D. Components of Population Change

1. Migration

Migration is traditionally associated with Greek history and life. Since ancient times, when the Greek city-states founded their colonies, and through their merchant fleets established strong ties with them and the other Mediterranean countries, Greeks can be found today settled in most countries of the world.

In the present century migration appeared in many of its forms, including external (free and refugee movements), internal and even substantial repatriation of previous migrants during the last two decades. During this period, migration was responsible for the greatest modification of the demographic characteristics of the population, even greater than the effect of the other two components of population change, fertility and mortality.

The present chapter deals with each one of these migration streams in an effort to pinpoint their dynamic effects on the population of the country and especially on the rural segment.

1.1 External Migration

During the present century three main streams of international migration characterized Greece, with various magnitudes, places of destination and consequences for the country.

The first stream started during the last decade of the 19th century when 370 thousands people (or 7.4% of the 1920 population) migrated, mostly to USA (see table 24). This massive migratory movement to the USA

was the result of the currant crisis (starting in 1895) in southern Greece where the majority of the migrants originated, and was only came to a halt with the abrupt change in USA immigration policy after 1921 (Mouzelis, 1978:165).

The second stream appeared in the early years of the next decade when almost 1.5 million Greek refugees from Turkey settled in the country, following the exchange of populations between the two countries under the Lausanne treaty. This massive refugee immigration in 1922, although initially causing many settlement problems, with many arguing that the country was unable to feed its native population and therefore famine for the whole population was unavoidable, very soon turned out to be a blessing for the country. The desperate need to accomodate this huge mass of uprooted people had as one of its consequences the acceleration of the land-reform program, already initiated by Venizelos toward the end of the previous period. The result of this land-reform was a tremendous increase in the acreage of cultivated land that had been previously left fallow and thus an increase in agricultural production resulted. At the same time a sizeable number of refugees were settled in the big urban centers and especially in Thessaloniki, Pireaus, and Athens either because it was impossible to be accommodated through the land distribution program or because they did not want to for reasons of living preferences and/or skills acquired. Those refugees who had occupied important positions in industry, trade and finance of the Greek communities in Asia Minor brought with them badly needed enterpreneurial skills as well as considerable money savings. Thus, in the long run the refugees gave a substantial and compelling impetus to the Greek economy (Mouzelis, 1978:22-23).

Thirty years later in the 50's and 60's a new stream of outmigra-

tion carried many Greeks, especially from rural areas, to the highly industrialized European countries, mainly to West Germany (see tables 24 and 25). At the same time a new outburst of emigration to the USA appeared, especially in the late 60's, probably as a result of the political situation in the country. It is estimated that this wave carried approximately one million migrants out of the country, that is 12% of the mid-period population (NSSG, and Valaoras, 1980:95)

Other countries that received substantial numbers of Greek migrants, especially after World War II, were Australia and Canada, where numerous Greek communities have been established.

What were the consequences of those migration streams on the Greek population? Tremendous is the answer, based on the data provided in table 26. First of all, the majority of the migrants were young people aged 15 to 44 years (82% on the average for the period 1955 to 1976 and ranging from 67.0% to 90.4%). Thus, the country has not only lost a substantial part of its productive population in the short-run, but it is going to exhibit for many years in the future a loss in its reproductive capacity. Secondly, during the period 1955 to 1976 on the average 67.4% of the excess of births over deaths compensated for the losses caused by migration and only 32.6% were added to the Greek population as a net increase. Taking into account that a downward trend is clearly evident from the statistics on the excess of births over deaths (from the upper 90 thousand they dropped to mid 60 thousand) the effects of migration can easily be understood in bringing the Greek population to the zero level of growth. Further, the fact that the population removed by migration was not evenly distributed among all areas of the country but originated mainly from rural areas, explains the radical distortions

in the age pyramid of the rural population.

The NSSG (1980:100) calculating the effects of migration on the population of the various administrative prefectures during the period 1961 to 1972 found that 25 out of 51 prefectures lost population due to outmigration at an annual rate ranging from -1.5 to -24.7 per 1000 inhabitants. Six prefectures had an annual rate of increase from .2 to 1.0 and the rest from 2.6 to 9.0 per 1000 inhabitants. Summarizing the administrative prefectures of the country into three broad regions, the results were as follows:

Region	Rates per 1000 inhabitants (per year)		
	Migration	Excess of Births	Difference
South Greece	6.0	9.5	3.5
North Greece	15.4	10.5	- 4.9
Island Greece	8.3	6.9	- 1.4

Thus according to these data two of the major geographic regions of the country (North and Island Greece) exhibited a negative increase as a result of heavy outmigration .

In reference to the sex composition of the migrants, data for the period 1957 to 1977 (table 27) clearly shows that the majority were males, especially during the first years of the above period. This is evidence that most of the young migrants were single at the time of migration or were married and left their wives and children behind during their first years of migration which were associated with many strains in the receiving countries. Many migrants, as soon as they established themselves in their new surroundings, sent for their immediate family members and even their parents to look after their children (as is evidenced in table 26) since their wives have gotten an occupation also to help the family attain

its goals as soon as possible, thus shortening the length of residence in the foreign country. This was especially the pattern of migration to European countries.

As to the reasons for migration, several causes have been proposed by various scholars. Bernard and Ashton-Vouyoucalos (1976:31) although they focused on return migration to Greece also pointed out in their introduction as a cause for emigration the fact that "meager and infertile lands have never been enough to support a continually expanding population". Candilis (1968:152) blames "the rate of unemployment and underemployment that has plagued Greece for decades...". Valaoras (1980:95) in explaining the reasons for emigration to USA points out three main reasons: a) the backward and underdeveloped Greek economy, b) the great opportunities opened by the fast developing United States and c) to the communication channels that were opened through the letters of early emigrants to their relatives and friends at home (chain migration). The later case had an even stronger effect on the migration stream in European countries since the shorter distance allowed frequent visits home accompanied by strong evidence of their economic betterment through emigration e.g. cars, home appliances e.t.c. Mouzelis (1978:125) attributes the huge rural exodus during the 60's and 70's to low labour absorption of the Greek industry, that left no other way than to parasitic jobs in the tertiary or artisan sectors, or to emigrate to the industrial centers of Western Europe. According to him this large-scale emigration operated as a huge safety valve by eliminating politically explosive situations.

Of course emigration was an easy solution to the long-faced unemployment and underemployment phenomena of the country and especially

of the rural areas. At the same time migration provided a golden opportunity for the badly needed foreign currency to finance the development plans that were carried on during the last three decades. Emigration was considered by many as "the goose laying golden eggs" but soon voices were raised as to whether the development of the country and the balance of payments should be based indefinitely on those golden eggs (the migrants' remittances). They were also joined with other voices emphasizing the demographic consequences of the prolonged and heavy emigration on the rural population of the country and the future growth of the total population as well.

Table 24. Migration to USA and other countries during the period 1851 - 1975

Years	All Destinations		To U.S.A.		To other countries	
	Number	%	Number	%	Number	%
1851 - 1860	31	100.0	31	100.0	-	-
1861 - 1870	72	100.0	72	100.0	-	-
1871 - 1880	213	100.0	210	98.6	3	1.4
1881 - 1890	2,310	100.0	2,310	99.9	2	.1
1891 - 1900	16,979	100.0	16,979	100.0	-	-
1901 - 1910	173,513	100.0	167,519	96.5	5,994	3.5
1911 - 1920	196,119	100.0	184,201	93.9	11,918	6.1
1921 - 1930	91,369	100.0	69,675	76.3	21,694	23.7
1931 - 1940	30,500	100.0	21,903	71.8	8,597	28.2
1941 - 45	*	*	*	*	*	*
1946 - 50	20,176	100.0	9,317	46.2	10,859	53.8
1951 - 55	68,063	100.0	22,788	33.5	45,275	66.5
1956 - 60	84,407	100.0	20,748	24.6	63,659	75.4
1961 - 65	118,116	100.0	18,167	15.4	99,949	84.6
1966 - 70	137,885	100.0	58,010	42.1	79,875	57.9
1971 - 75	64,821	100.0	31,830	49.1	32,991	50.9

SOURCE: NSSG, Statistical Yearbook of Greece 1978, p. 18

(*) No data were available

Table 25. Number of Emigrants and proportion received by various countries during the period 1959 - 1976

Year	Number of Emigrants	Countries of Destination (%)			
		Overseas	European	Other Mediterannean	Undeclared
1959	23,684	58.6	28.3	11.4	1.7
1960	47,768	37.2	56.4	5.9	.5
1961	58,837	29.5	67.2	2.9	.4
1962	84,054	26.1	72.3	1.4	.2
1963	100,072	24.4	74.2	1.1	.3
1964	105,569	24.0	75.3	.7	.05
1965	117,167	24.8	74.5	.7	.08
1966	86,896	38.1	61.0	.7	.2
1967	42,730	61.6	36.6	1.6	.2
1968	50,866	50.9	46.2	1.5	1.4
1969	91,552	31.0	68.2	.6	.2
1970	92,681	26.1	73.5	.3	.2
1971	61,745	30.3	68.9	.3	.5
1972	43,397	30.5	67.0	.5	2.0
1973	27,525	42.5	55.0	.7	1.8
1974	24,448	50.6	44.6	1.8	3.0
1975	20,330	43.3	49.7	4.5	2.5
1976	20,374	40.0	50.3	5.1	4.6

SOURCE: NSSG, Statistical Yearbook of Greece, 1960 to 1977 and calculations by the author.

Table 26. Emigration during the period 1955-1976, by major age groups, and in comparison with the excess of births over deaths and rates of emigration per 1000 population.

Year	Excess of births	Emigrants, total and by age groups				% 15 - 44	Per 1000 population
		T o t a l	0 - 14	15 - 44	45 @ over		
1955	99,482	29,787	4,062	22,933	2,792	77.0	3.74
1956	98,746	35,349	4,861	27,061	3,427	76.6	4.40
1957	94,276	30,428	3,659	24,766	2,003	81.4	3.76
1958	97,199	24,521	3,446	18,978	2,097	77.4	3.00
1959	99,347	23,684	2,744	18,941	1,999	80.0	2.87
1960	96,676	47,768	3,627	41,387	2,754	86.6	5.74
1961	86,761	58,837	3,704	52,251	2,882	88.8	7.01
1962	85,604	84,054	4,128	76,010	3,916	90.4	9.95
1963	81,436	100,072	5,752	89,273	5,047	89.2	11.80
1964	83,681	105,569	6,322	93,599	5,648	88.7	12.40
1965	84,179	117,167	9,486	99,976	7,705	85.3	13.70
1966	86,701	86,896	9,394	70,113	7,389	80.7	10.09
1967	90,864	42,730	7,764	30,397	4,569	71.1	4.90
1968	87,029	50,866	8,289	37,284	5,293	73.3	5.82
1969	82,252	91,552	10,131	76,563	4,858	83,6	10.44
1970	70,919	92,681	11,217	76,211	5,253	82.2	10.54
1971	67,307	61,745	11,138	46,793	3,814	75.8	6.99
1972	64,032	43,397	8,185	31,853	3,359	73.4	4.88
1973	59,878	27,525	4,962	19,694	2,869	71.5	3.08
1974	67,766	24,448	5,202	16,387	2,859	67.0	2.73
1975	62,196	20,330	2,895	14,716	2,719	72.2	2.25
1976	64,748	20,374	2,442	14,949	2,983	73.4	2.22
Average	82,322	55,445	6,064	45,461	3,920	82.0	

SOURCE: NSSG, Statistical Yearbook of Greece 1968, p. 37 and calculations by the author.

Table 27. Number of emigrants by sex and sex ratio during the period 1957-1977.

Year	Both sexes	Males	Females	Sex ratio
1957	30,428	19,196	11,232	170.9
1958	24,521	12,889	11,632	110.8
1959	23,684	14,044	9,640	145.7
1960	47,768	33,278	14,490	229.7
1961	58,837	36,209	22,628	160.0
1962	84,054	51,868	32,186	161.1
1963	100,072	61,966	38,106	162.6
1964	105,569	66,265	39,304	168.6
1965	117,167	65,341	51,826	126.1
1966	86,896	46,369	40,527	114.4
1967	42,730	22,885	19,845	115.3
1968	50,866	27,232	23,634	115.2
1969	91,552	51,633	39,919	129.3
1970	92,681	53,030	39,651	133.7
1971	61,745	33,935	27,810	122.0
1972	43,397	24,470	18,927	129.3
1973	27,525	14,753	12,772	115.5
1974	24,448	13,223	11,225	117.8
1975	20,330	11,718	8,612	136.1
1976	20,374	12,349	8,025	153.9
1977(1)	16,510	10,215	6,295	162.3

SOURCE: NSSG, Statistical Yearbook of Greece 1974, and 1980

(1) Data for 1977 refer to January - September period. From October 1977 due to changes in the entries of the "arrival" and "departure" card, no data are collected on emigration and immigration of Greek citizens.

1.2 Repatriation

Although repatriation is as old as emigration, only lately, namely in 1968, did this variable appear in the official statistics on migration. Unfortunately these data were abolished altogether by October 1977 when changes in the entries of the arrival and departure card filled by Greek citizens, resulted in stopping the collection of data on emigration and immigration.

Three main reasons can be associated with the phenomenon of repatriation that can at the same time distinguish three categories of Greek immigrants.

The first category consists of all those migrants who failed to adapt in the new surroundings for various reasons and decided to return to their homeland before the fulfilment of their migration goals. Their period of residence abroad was the shortest of the three categories and their number was higher immediately after a new migration stream. The establishment of Greek communities in the new places of migration provided support for new migrants and a buffering system for the relaxation of various tensions arising from their contact with the host culture.

The second category consists of all those migrants that returned due to the fact that they had fulfilled their migration goals or those who did not see any benefit in prolonging their stay abroad or that their prolonged stay was not compensated for by the continuing loss of the direct love and affection of their relatives and friends in the homeland. We may say that this group represents a living example of the Odyssean spirit that not only brought them to the foreign countries but brought them back to the paternal land. There are many examples of such

Greek immigrants who left the foreign countries in times of continuing prosperity. Even recently many of those overseas Greek immigrants belong to this category (see table 28).

The third category consists of all those who, in some way were forced to return home due to setbacks in the economy of the receiving countries. When the economic crisis is sudden and deep, as was the case with the depression in the 1930's in the USA, a massive return migration can occur. Unfortunately there are no data on how many Greek migrants returned to Greece at that period from the USA, and how many of them emigrated again as soon as the American economy started to pick up. In cases where the drawbacks of the economy of the receiving countries is gradual, as was the case with the situation which developed in W. Germany and other European countries as a result of the oil crisis, a different pattern has developed in the process of return. First of all children, women and older persons return first, while migrants remained in an effort to prolong their stay as much as possible, in order to qualify for retirement benefits or increase their savings which would allow them to improve their economic situation when return was unavoidable. This pattern is documented in the data provided in table 29 where the percentages of women and very young (0-14 years) and older (45 and over) people are higher among immigrants than among emigrants. Of course there is one limitation in interpreting these data. Those who returned to Greece during the period 1968 to 1976 did not necessarily migrate during the same period and thus, the assumption that the present immigrants had the same characteristics at the time of their emigration as the emigrants of the 1968 to 1976 period is necessary, which is not far from reality.

An interesting question on the phenomenon of repatriation is

whether people that migrated from rural areas returned to them or preferred to settle in the urban centers of the country. Data gathered on this problem and arranged in table 30 support the argument that those who emigrated from rural areas returned to those areas in smaller proportions. Of course the data was based on information provided by the immigrants at the time of crossing the borders and we do not know whether they changed their minds a few months later and moved to urban centers. Also the difference might be greater in reality since some of those who were counted as immigrants were not counted as emigrants since they were born abroad, and those who immigrated at a certain year were not a part of those who emigrated at the same year. Calculation of totals for the period 1971-1977 for emigration and for 1970-1977 for immigration revealed that while 48% of the emigrants came from rural areas, immigrants settled in rural areas consisted of only 38.7%, thus leaving a gap of 9 percentage units. The question posed is worth being investigated since those immigrants who were in touch with other cultures will work as change agents in their rural areas in case of permanent residence to those areas and thus there is a great potential simultaneously for change and conflict in those areas.

Table 28. Greek immigrants by country of origin (percentages) during the period 1968 - 1976.

Year	Number of immigrants	Countries of origin (%)			
		Overseas	European	Other Mediterranean	Not declared
1968	18,882	25.1	60.3	7.8	6.8
1969	18,132	28.4	62.6	5.8	3.2
1970	22,665	31.4	61.5	4.5	2.6
1971	24,709	33.3	60.8	2.8	3.1
1972	27,522	30.8	62.7	3.0	3.5
1973	22,285	28.4	63.1	2.9	5.6
1974	24,476	19.6	74.9	1.6	3.9
1975	34,214	13.6	81.6	.8	4.0
1976(1)	32,067	16.7	79.7	1.3	2.3

SOURCE: NSSG, Statistical Yearbook of Greece, 1969 to 1977 and calculations by the author

(1) Immigration data have been collected only from 1968 up to September 1977.

Table 29. Sex and age composition (%) of Greek emigrants and immigrants during the period 1968 - 1976.

Migration From and To Greece	By sex (%)		By age groups (%)		
	Males	Females	0 - 14	15 - 44	45+
Emigrants	58.6	41.4	10.9	82.0	7.1
Immigrants	54.0	46.0	17.5	65.1	17.4

SOURCE: NSSG, The population of Greece in the Second Half of the 20th Century, p. 102

Table 30. Greek emigrants and immigrants from and to rural areas, and proportion of total emigration and repatriation during the period 1968* to 1977(1)

Year	Emigrated		Repatriated	
	Number	%	Number	%
1968	**	**	**	**
1969	**	**	**	**
1970	**	**	5,080	23.2
1971	32,019	53.3	8,629	36.9
1972	22,157	53.0	9,728	38.3
1973	12,576	48.8	8,154	40.5
1974	9,523	42.4	9,835	42.8
1975	7,373	39.5	14,926	45.7
1976	6,999	38.6	12,286	40.8
1977(1)	5,757	41.8	4,049	35.5

SOURCE: NSSG, Statistical Yearbook of Greece 1969 to 1978

(*) Data on repatriation were not available prior to 1968

(**) Were not available using the rural-urban distinction

(1) See table 27

1.3 Internal

Although internal migration and specifically rural to urban migration appeared only at the beginning of the present century, it was not until the mid 50's that it gained a momentum that pulled millions of people from rural areas. As a result of centralized development and administration for over thirty years, by 1971 over one third (35.3%) of the country's population was concentrated in two urban centers, the greater Athens and Thessaloniki Metropolitan areas. Table 31 clearly presents the enormous rates of increase of the two metropolitan areas during the last five censuses. It is also evident from the same table that during the last decade the rate of increase has slowed down substantially in both metropolitan areas (from 37.1% for the period 1961-1971 to 18.8% for 1971-1981 for Athens, and from 46.4% to 20.9% for Thessaloniki, respectively).

This slowdown process was not mainly the result of redistribution policies implemented by the Greek government, although some policies especially through tax incentives to new industries established outside of the Greater Athens area, contributed to the slowdown. Congestion and environmental degradation, mainly in Athens, plus the mathematics involved - migration had reached its peak point and thus a decrease was expected - are also equally possible reasons for this slowdown.

Statistics on internal migration are gathered through a specific question placed in the population census questionnaire referring to the place of residence 5 years before the date of the census. Cross tabulations of various demographic variables of those persons with a different place of residence provide useful information about who is migrating. Of course the lack of information about the reasons for their migration greatly impede the full analysis of the phenomenon, since part

of the movers had no choice other than to move, e.g. public officials, army officers, e.t.c.

Looking at the data provided by the 1971 census and using the rural-urban dichotomy for both the place of origin and destination, one can easily note that each of the four streams (rural to urban, rural to rural, urban to rural and urban to urban) was present. Of course, the dominant stream was the rural to urban migration. Unfortunately the available data provide information on the number of in and out migrants of rural and urban areas without any reference to the place of origin and destination of those migrants. Thus, during the five year period preceeding the 1971 census, 144,300 people moved to rural areas from other rural, semi-urban, and urban areas and at the same time 392,840 people left the rural areas for an unspecified destination. As a result rural areas lost nearly a quarter of a million of their population. It is interesting to note that in and out-migrants had almost the same age composition, with the exception of the group 15 to 24 years of age, which was greater among out-migrants than in-migrants (see Table 32). Similarly the age composition among the net migrants of rural and urban areas gives evidence to support the argument that those who left rural areas were settled in the urban centers (Table 33). Also the sex composition of net migrants of rural and urban areas (Table 34) was similar.

Table 31. Population of the Greater Athens and Thessaloniki Metropolitan areas and percentage increase during the last five censuses.

Census Year	Greater Athens		Greater Thessaloniki		Total Greece	
	Number	Intercensus increase(%)	Number	Intercensus increase(%)	Number	Intercensus increase(%)
1940	1,124,109		278,145		7,344,860	
		22.6		8.8		3.9
1951	1,378,586		302,635		7,632,801	
		34.4		25.8		9.9
1961	1,852,709		380,648		8,388,553	
		37.1		46.4		4.5
1971	2,540,241		557,360		8,768,641	
		18.8		20.9(1)		10.7
1981	3,017,806		*		9,707,000(2)	

SOURCE: NSSG, Statistical Yearbook of Greece, 1968, and 1978 and Intercom, vol. 9, No 6, p. 6

(1) For the entire Prefecture of Thessaloniki and not only for the Greater Thessaloniki Metropolitan area.

(2) Preliminary results of the 1981 census reported in "Intercom"

(*) Data were not available

Table 32. Household members migrating to and from rural areas, after 1965, by age(1).

Age groups	In-migrants		Out-migrants		Net migration	
	Number	%	Number	%	Number	%
5 - 14	23,160	16.0	74,220	18.9	- 51,060	20.5
15 - 24	35,020	24.3	121,420	30.9	- 86,400	34.8
25 - 34	37,000	25.6	72,260	18.4	- 35,260	14.2
35 - 44	20,360	14.1	52,340	13.3	- 31,980	12.9
45 - 64	19,400	13.5	48,340	12.3	- 28,940	11.6
65+	9,360	6.5	24,260	6.2	- 14,900	6.0
Total	144,300	100.0	392,840	100.0	-248,540	100.0

SOURCE: NSSG, Statistical Yearbook of Greece 1978, p. 37

(1) 5% sample elaboration of the 1971 census questionnaires

Table 33. Comparison of net rural and urban migration after 1965, by age[1]

Age groups	Rural Areas		Urban Areas	
	Number	%	Number	%
5 - 14	- 51,060	20.5	45,460	17.2
15 - 24	- 86,400	34.8	100,640	38.2
25 - 34	- 35,260	14.2	34,400	13.1
35 - 44	- 31,980	12.9	34,340	13.0
45 - 64	- 28,940	11.6	31,940	12.1
65+	- 14,900	6.0	16,840	6.4
Total	-248,540	100.0	263,620	100.0

SOURCE: NSSG, Statistical Yearbook of Greece 1978, p. 37

(1) 5% sample elaboration of the 1971 census questionnaires.

Table 34. Comparison of in-, out-, and net migrants of rural and urban areas after 1965, by sex[1].

Sex	Rural Areas		Urban Areas	
	Number	%	Number	%
		In-migrants		
Males	67,100	46.5	255,680	49.1
Females	77,200	53.5	266,200	50.9
Both sexes	144,300	100.0	521,880	100.0
		Out-migrants		
Males	182,020	46.3	134,140	51.9
Females	210,820	53.7	124,120	48.1
Both sexes	392,840	100.0	258,260	100.0
		Net migrants		
Males	-114,920	46.2	121,540	46.1
Females	-113,620	53.8	142,080	53.9
Both sexes	-248,540	100.0	263,620	100.0

SOURCE: NSSG, Statistical Yearbook of Greece 1978, p. 37

(1) 5% sample elaboration of the 1971 census questionnaires

2. Fertility

2.1 Marriage Rates

Marriage rates for the twenty year period, 1956 to 1975 presented in Table 35 seems to be relatively stable and almost equal for urban and rural[1] areas of the country. The division of the entire period into two equal sub-periods and the calculation of average marriage rates for the two areas revealed a slight increase in the average marriage rates for urban areas (from 8.0 in period 1956 to 1965 increased to 8.2 in 1966 to 1975) and a major drop for rural areas (from 8.7 in the period 1956 to 1965 to 8.0 in the period 1966 to 1975). This fact is further evidence of the rural to urban migration that removed young unmarried people from rural areas. Of course part of this trend may be attributed to the fact that people in urban areas, due to higher divorce rates, remarry a second or third time, which is rarely practiced in the traditional cocieties of rural areas.

2.2 Crude Birth Rates

During the period 1956 to 1975 the crude birth rate remained steady in urban areas, around 16 to 17 births per thousand population for most years of the period. On the other hand, crude birth rates for the rural population exhibited a steady decrease, dropping from about 21 births per thousand population to about 15 births. This dramatic drop of the crude birth rate at the end of the period and of levels even lower than the urban population birth rate (see Table 35) can be attributed to two factors. First, a dramatic change in the fertility behavior of

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(1) Settlements with up to 9,999 inhabitants

the rural population and/or a substantial decrease in the proportion of the population of childbearing ages (15 to 49 years) in the rural areas of the country. The fact that the decrease was so rapid and in such a short time (20 years) combined with the fact that the birth rate dropped even below that of urban population, cast doubts on accepting the first explanation.

2.3 Total Fertility Rates

Calculation of the total fertility rate, which is a more refined measure, as it takes into account not the total population but only women of childbearing ages, 15 to 49 years, revealed that there was no change in the fertility behavior of the rural women during the period examined. Data on total fertility rates presented in Table 36 show that rural women had a consistently higher total fertility rate throughout the entire period than urban women. On the other hand, total fertility rates for urban women climbed steadily during the first half of the period examined (from 1956 to 1967) and then remained almost at the same level throughout the rest of the period. This trend provides strong evidence of how the rural to urban migration of people of young ages affected the fertility rates of the urban centers - the period of increasing fertility rates in urban areas coincides with the period of heavy rural to urban migration - and how strongly the growth potential was affected in the rural areas.

It also provides another very useful insight for population policy consideration for a country like Greece which would like to increase its population growth which has approached the zero level. If policy makers want to increase the rate of growth of the Greek population, the

best way to do so is by keeping the population in the rural areas of the country[1]. Not through compulsory measures, of course, but through policy measures that will provide job opportunities and better living conditions for the rural population.

2.4 Illegitimate Births

The illegitimacy ratio, that is the number of illegitimate live births per 1,000 total live births, revealed a slight decrease throughout the entire period in rural areas (9.2 in 1956 as compared to 8.6 in 1978) and a more rapid decrease in urban areas (24.1 in 1956 as compared to 16.4 in 1978), as it is shown in Table 37. This lower ratio of illegitimate births in rural areas over the urban areas cannot be attributed entirely to stronger puritanical sexual mores that persist in the rural areas of the country. It is probable, that part of these births go unregistered as such, especially in the rural areas of the country (NSSG., and Valaoras; 1980:39). The social stigma attached to illegitimacy of parenhood within the Greek society and especially within the rural society, is forcing the parents either to marry and declare the previously born child as legitimate or, in case marriage could not take place, the unfortunate young mother has to give her child through illegal procedures to a married and childless couple that declares it as their own and thus avoids the long and tedious procedure of legalized adoption.

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(1) Of course this does not imply that the same results can be accomplished by redirecting part of the urban population in the rural areas of the country.

Table 35. Marriage rates, birth rates, and stillbirth ratios in urban and rural areas[1] during the period 1956 - 1975

Year	Marriage rate		Birth rate		Stillbirths	
	Urban	Rural	Urban	Rural	Urban	Rural
1956	6.2	7.4	20.5	19.5	19.6	8.0
1957	8.2	8.7	16.5	21.1	21.9	7.6
1958	7.7	9.0	16.3	21.0	22.7	8.5
1959	8.6	9.3	16.5	21.6	21.8	8.9
1960	6.2	7.6	15.9	21.2	23.1	9.6
1961	8.5	8.4	16.1	19.5	21.1	9.4
1962	8.2	8.6	16.4	19.4	20.4	10.5
1963	9.2	9.2	16.6	18.3	19.3	11.6
1964	8.8	9.0	17.4	18.3	21.6	11.4
1965	8.4	9.5	17.5	17.8	20.2	11.9
1966	8.1	8.5	18.3	17.6	19.6	12.7
1967	9.8	9.1	19.1	18.5	17.5	12.5
1968	7.4	7.7	18.5	18.4	16.0	12.0
1969	8.4	8.2	17.7	17.5	16.1	12.8
1970	7.6	7.7	17.0	15.8	14.9	11.4
1971	8.5	8.1	16.6	15.3	14.7	12.3
1972	6.8	6.8	16.8	14.9	13.6	11.8
1973	8.6	7.9	16.3	14.4	12.8	11.7
1974	7.8	7.4	16.9	15.0	12.9	11.2
1975	8.7	8.3	16.6	14.8	12.4	10.9

SOURCE: NSSG, The Population of Greece in the Second Half of the 20th Century, Athens 1980, p. 35, Table 14.

(1) Settlements with up to 9,999 inhabitants

Table 36. Total fertility rate among the urban and rural[1] population, during the period 1956 - 1975.

Year	Total Fertility Rate[2]		
	Urban	Rural	Difference
1956	1,754	2,883	1,129
1957	1,762	2,778	1,016
1958	1,737	2,740	1,003
1959	1,769	2,817	1,048
1960	1,718	2,779	1,061
1961	1,756	2,590	834
1962	1,828	2,621	793
1963	1,893	2,534	641
1964	2,022	2,612	590
1965	2,045	2,568	523
1966	2,172	2,608	436
1967	2,323	2,821	498
1968	2,292	2,901	609
1969	2,211	2,845	634
1970	2,136	2,628	492
1971	2,088	2,618	530
1972	2,123	2,640	517
1973	2,071	2,664	593
1974	2,155	2,268	113
1975	2,104	2,948	844

SOURCE: Same as Table 35

(1) See Table 35

(2) Per 1,000 women

Table 37. Sex ratio of legitimate and illegitimate births and illegitimacy ratio in rural and urban areas during the period 1956 - 1978.

Year	Sex ratio of births: Legitimate births		Sex ratio of births: Illegitimate births*		Illegitimacy ratio	
	Rural	Urban	Rural	Urban	Rural	Urban
1956	108.0	107.9	106.5	111.1	9.2	24.1
1957	107.8	106.7	106.0	100.7	9.0	25.2
1958	109.7	105.5	98.7	103.3	8.1	21.5
1959	109.0	105.1	113.7	93.8	8.1	20.7
1960	106.9	107.6	109.0	104.1	7.7	19.5
1961	108.0	107.1	114.5	113.7	7.4	19.2
1962	105.7	106.7	103.2	99.2	7.2	17.4
1963	107.0	106.6	124.2	103.3	7.6	17.5
1964	106.5	106.1	127.1	116.6	7.0	15.7
1965	106.7	107.7	98.0	122.3	6.2	15.1
1966	107.8	107.3	105.7	109.1	5.9	13.4
1967	105.8	107.5	103.8	113.7	6.0	13.3
1968	105.8	106.1	105.9	107.7	6.9	14.8
1969	108.1	106.1	102.7	103.9	6.5	15.2
1970	105.5	108.6	119.4	107.2	6.8	14.1
1971	107.6	106.0	110.8	108.2	7.0	15.4
1972	106.4	106.1	108.6	108.8	6.5	15.3
1973	107.8	107.9	96.5	99.9	6.6	16.7
1974	107.6	106.3	102.8	109.4	6.8	15.4
1975	107.1	106.1	94.2	108.0	7.4	16.2
1976	109.1	106.7	129.3	101.0	6.6	16.2
1977	107.5	104.5	86.9	116.5	7.0	16.4
1978	107.0	108.3	90.8	103.1	8.6	16.4
All years	107.4	106.7	107.1	106.8		

SOURCE:NSSG., Vital Statistics of Greece, 1956-1978 and calculations by the author.

(*) The irregularity of the annual sex ratios is probably the result of the small number of illegitimate biths.

Table 38. Percentages of live births by the person who was responsible for the delivery in rural and urban areas. Selected Years.

Year	Physician	Midwife and Nurse	Other Person	Not declared
		Rural areas		
1956	19.4	40.0	37.1	3.5
1957	21.0	39.8	36.0	3.2
1958	23.6	39.7	34.4	2.3
1966	47.7	35.2	17.1	.01
1967	49.5	34.2	16.3	.002
1968	52.5	33.1	14.4	.003
1975	70.7	22.1	7.2	.0
1976	73.5	20.4	6.1	.0
1977	77.6	18.2	4.2	.0
1978	79.3	17.1	3.6	.0
		Urban areas		
1956	67.2	30.0	2.2	.6
1957	70.2	27.2	2.1	.5
1958	73.3	24.1	2.1	.5
1966	92.6	6.5	.8	.1
1967	93.3	5.9	.7	.1
1968	94.1	5.2	.6	.1
1975	97.4	2.3	.3	.01
1976	97.6	2.1	.2	.01
1977	98.0	1.8	.2	.006
1978	98.2	1.7	.1	.004

SOURCE: See Table 37

Table 39. Live births by place of permanent residence of the mother and place of birth. Selected years.

Year		Urban areas	Semi-urban areas	Rural areas	All areas[1]
1956	(a)	52,791	22,134	83,174	158,099
	(b)	65,986	20,708	71,509	158,203
1957	(a)	54,277	21,504	80,127	155,908
	(b)	67,208	20,668	68,064	155,940
1966	(a)	75,132	19,184	60,200	154,516
	(b)	106,821	15,338	32,454	154,613
1967	(a)	80,758	19,265	62,712	162,735
	(b)	116,487	15,299	31,053	162,839
1976	(a)	90,940	15,268	40,272	164,480
	(b)	128,591	7,937	10,038	146,566
1977	(a)	90,180	14,952	38,537	143,669
	(b)	129,455	7,051	7,233	143,739
1978	(a)	92,549	15,428	38,482	146,459
	(b)	132,964	7,363	6,261	146,588

SOURCE: NSSG., Statistical Yearbook of Greece 1957, 1967, 1977,and 1980

(a) By permanent residence of the mother

(b) By place of occurence of birth

(1) Totals are not the same because a small number of births took place abroad and were not included in line (a).

Table 40. Percentages of live births by place of birth, and place of permanent residence of the mother. Selected years.

Year	Residence	Hospital	Other establishment	Other place and Not declared
			Rural Areas	
1956	81.0	17.4	1.0	.5
1957	79.5	19.2	.7	.6
1958	76.2	23.2	.1	.5
1966	48.0	51.5	.2	.3
1967	44.4	55.3	.1	.2
1968	40.4	59.3	.1	.2
1975	24.3	75.6	.03	.1
1976	21.3	78.5	.02	.1
1977	15.6	84.2	.02	.1
1978	15.6	84.2	.02	.1
			Urban Areas	
1956	30.1	64.4	5.0	.5
1957	26.1	67.1	6.3	.5
1958	23.7	75.0	.9	.4
1966	9.6	90.3	.01	.1
1967	7.6	92.2	.1	.1
1968	6.2	93.7	.01	.1
1975	2.2	97.8	.002	.03
1976	2.1	97.9	.01	.04
1977	1.4	98.6	.003	.02
1978	1.1	98.9	.004	.03

SOURCE: NSSG, Vital Statistics of Greece, 1956 to 1978, Athens, Greece and Calculations by the Author.

3. Mortality

3.1 Crude Death Rates

Statistics on the crude death rates during the period 1956 to 1975 in the rural and urban areas of the country (Table 41) reveal little or no change for urban areas (mostly 7.5 to 7.8 deaths per thousand population) and a substantial increase for rural areas (from 7.4 to 10.7 deaths per thousand population). Although health care is better in urban than in rural areas, and at the same time, better in both areas than they were even a few decades ago, quality of health care cannot explain the difference in favor of the urban areas, for the additional reason that the slight difference at the beginning of the examined period increased progressively. The only possible explanation left is again the effect of the rural to urban migration and emigration that removed, for the most part, the young and adult population of low risk and left behind the elderly with the high risk of death that is associated with advanced age. The period of increased death rates followed the massive departure of young people from rural areas that altered their age composition in favor of the older group (people beyond the age of 65), and thus provides further evidence for the casual explanation of this trend.

3.2 Infant Death Rates

The way in which the quality of data can distort the conclusions is clearly evident from the statistical data on infant death rates provided in Table 41, with and without correction for the undeclared infant deaths.

Using the uncorrected data the picture that results is that while infant death rates exhibited a slight decrease over the period 1956 to

1975 in urban areas, the decrease was faster and even greater in rural areas, which at the end of the same period had lower infant death rates than the urban areas!. Of course this cannot be accepted as valid - it is too good to be true - although during the period there was a substantial improvement in child delivery practices in the rural areas where midwives were replaced by specialized doctors and also deliveries were progressively taking place in hospitals and specialized clinics instead of in the home. Thus, better health care was available to newborn babies during their first period of life which is associated with high risk (see Tables 38, 39, and 40).

On the contrary, using the corrected infant death rates the picture is quite different and closer to reality, since infant death rates were higher in rural areas than in urban areas throughout the entire period. It is encouraging that the decrease was substantial for both areas but there is still room for further improvement, especially in the rural areas of the country. At the same time, although the registration of infant deaths was almost complete in the urban areas, there are still many things to be done in that direction in the rural areas of the country.

3.3 Life Expectancy at Birth

The fact that life tables provide an index of the level of mortality by representing a summarization of a whole series of age specific mortality rates enables their use in comparing two populations at a time or one population over time.

Unfortunately, life tables are prepared in Greece only for the total population. Even the late special publication of the NSSG (1980) under the supervision of Professor Valaoras which gave many demographic

measures using for the first time the rural - urban distinction, did not publish separate life tables for the rural population of the country. Although no explanation was provided for that omission, several reasons can be assumed (e.g. lack of completeness in the registration system in rural areas, e.t.c.). What is important to note here is how far the analysis of various aspects of the rural population is impeded by the lack of available data.

Of course one can easily make resonable guesses for the rural population using the data on the urban population bearing in mind that infant mortality rates and infectious and parasitic diseases are higher in rural than in urban areas. The only available life tables for the rural population of the country are those constructed using the 1961 census data.

Using the life expectancy at birth as a measure of comparison one can easily conclude by looking at the data provided in Table 42 that the progress towards lowering mortality rates at early ages through better health care was tremendous. Namely, the life expectancy at birth increased from 45 years for males and 47.5 years for females in 1928 to 70.1 years and 73.6 years, respectively by 1970. Similar data for the rural population in the year 1961 shawed about a year difference in the life expectancy in contrast to the urban population (66.8 years for rural males in comparison to 68.2 for urban males and 70.1 for rural females compared to 71.5 years for urban females). The near-worldwide superiority in the life expectancy of females over males was also present in the Greek data.

Table 41. Death rate and uncorrected and corrected infant death rates in urban and rural[1] areas during the period 1956 - 1975.

Year	Death rate		Infant death rates			
			Uncorrected		Corrected	
	Urban	Rural	Urban	Rural	Urban	Rural
1956	7.5	7.4	27.9	46.5	46.8	58.7
1957	7.3	7.9	39.3	46.7	46.0	57.6
1958	6.8	7.3	36.2	40.6	44.9	55.6
1959	7.0	7.7	37.5	42.4	44.1	54.2
1960	6.7	7.7	37.0	41.8	43.2	53.4
1961	7.4	7.9	38.2	40.9	42.9	53.2
1962	7.6	8.1	38.8	41.5	43.4	53.9
1963	7.5	8.2	37.3	40.8	40.6	51.4
1964	7.7	8.5	37.3	34.6	39.2	49.0
1965	7.6	8.1	35.4	33.3	37.6	46.2
1966	7.5	8.2	35.4	38.6	36.1	45.2
1967	7.8	8.8	36.0	32.6	35.1	44.5
1968	7.8	9.0	36.4	32.5	34.2	43.6
1969	7.6	8.8	33.3	30.2	33.3	42.4
1970	7.6	9.3	31.2	27.8	31.8	40.6
1971	7.6	9.3	29.3	24.0	30.3	37.6
1972	7.8	9.8	31.1	22.4	29.2	35.6
1973	7.6	10.1	25.7	22.0	28.1	34.1
1974	7.5	10.0	25.3	22.0	27.3	33.0
1975	7.6	10.7	26.0	20.1	26.8	32.1

SOURCE: Same as Table 35

(1) Settlements with up to 9,999 inhabitants

Table 42. Life expectancy at birth for the total population and the rural population by sex in 1928, 1940, 1950, 1960, and 1970

Year	Total Population		Rural Population	
	Males	Females	Males	Females
1928	44.95	47.46	**	**
1940	52.94	55.80	**	**
1950	63.44	66.65	**	**
1960	67.30	70.42	66.8*	70.1*
1970	70.13	73.64	**	**

SOURCE: NSSG, Vital Statistics of Greece 1977, p. XLV and p. XIX

(*) For the year 1961 and both the rural and semi-urban areas. The respective data for the urban population were: 68.2 years for males and 71.5 years for females.

(**) No data were available

III. SUMMARY AND POLICY IMPLICATIONS

The preceding analysis revealed two major findings. First, demographic differences between the rural and urban areas still persist. Second, the common denominator for most of the changes in those characteristics is the heavy exodus of young people from the rural areas of the country. In the following paragraphs an attempt is made to summarize those changes and to pinpoint the effect on them by the migration momentum that was at its heighth during the period studied.

The rural population is decreasing and the country as a whole gives the impression that it is turning into an urban nation. On the other hand, it still remains an overwhelmingly rural country if you consider each of its geographic regions, with the exception of the two geographic regions that include the two and the only two, great metropolitan areas of the country, Athens and Thessaloniki. Thus, the country is becoming more and more polarized, with two urban centers having all the problems of the megalopolis (congestion, environmental deterioration etc). Furthermore these areas absorb vast amounts of resources in trying to ameliorate those problems, and the rest of the country, on the other hand, with their small communities struggle to retain their population and depend for resources upon the charity of the authorities in the capital.

Household size became progressively smaller throughout the period studied due to the effect of three factors. The migration of some of its members, the separation of new couples from their immediate parents

through the availability of greater opportunities to establish their own separate households, even within the same village, and the changing attitudes towards family size that now favor a smaller number of offsprings. Although the rural family became smaller in size, it is still larger than the urban family since urban values and attitudes towards fertility have not been fully assimilated by the rural population.

The changes in the age composition of the rural population pinpointed very clearly the enormous consequences of the huge rural exodus. The few adults that were left behind are struggling to support greater numbers of dependents (young and old). By 1971 every 10 rural adults had to support 7 dependents as compared to only 5 in urban areas. The burden becomes even greater if one takes into account the income differentials that discriminate heavily against the rural population.

The sex ratio was also distorted in the rural population throughout the period 1951 - 1971, especially in the productive ages, 15 to 64, as a result of the selective process of migration that removed more males than females from the rural areas.

Statistics on education and illiteracy showed a great improvement in the education of the rural people but still many things have to be done in rural areas and mainly towards providing the conditions that are necessary to keep educated people in local areas. The difference in the rates of university graduates in rural and urban areas has been widened (from 25.2 persons every 1000 population in 1961 to 35.4 in 1971); also 21.3% of the illiterate population lives in rural areas as compared to 9.0% for the urban areas.

Crude birth rates for the rural population exhibited a steady decrease throughout the period 1956 - 1975, dropping from about 21 births

per thousand population to about 15 births, while urban rates remained steady, around 16 to 17 births per thousand population. The fact that this rapid drop in birth rates in the rural areas, even to levels lower than the urban areas, was caused by the heavy rural exodus that was mainly composed of young adults in the reproductive ages and not by changes in the fertility patterns, was evidenced by the calculation of the total fertility rates. This refined measure revealed that rural women are still having more births (about one more) throughout their reproductive ages than urban women do. This finding also emphasizes that if the population growth of the country has to be enhanced - as some voices have pointed out - this would be done more easily and more securely through policy measures that build within the rural population rather than the urban population.

The fast drop of birth rates in rural areas was accompanied, as expected, by an equal increase in the death rates, as a result of the heavy rural exodus that left behind the very young and the elderly. Hundreds of villages and even entire areas are experiencing more deaths than births and their near-complete depopulation is only a matter of a few decades.

Fortunately, the migration streams, both internal and external, have lost their momentum and according to the statistical data many Greeks return to their home villages from the industrialized countries of the Western Europe. Will they settle permanently in those areas in the future or will they head for the two urban monsters is still an unanswered question. At the same time the slow-down in migration should not be taken for granted. It was caused by external forces operating in the countries of destination and was not a response to changes within the

country. Therefore, it is possible that new conditions can create in the future a new migration stream while the push factors will be kept operating within the country.

Thus, the need to adopt and implement population distribution and redistribution policies is greater than ever before. Although some policy measures were implemented in the past, especially through tax incentives to new industries established outside of the Greater Athens area, they did not substantially contribute to the slow-down of rural exodus. Lack of strong commitment, lack of long-term orientation and lack of efficient administration were the main reasons. In addition, no attention was paid to "hidden" policies that result from the fact that "migration is linked to many variables" and consequently a sheer number of programs can have a negative or positive influence on migration (Findley, 1977:139).

A new package of policy measures on population distribution and redistribution is necessary to be developed after a thorough study of the existing migration streams (volume, direction, and structure) in line with social and economic trends. Lack of such consideration tends to generate policies with little success since they "...touch on the symptoms rather than on the roots of the ills" (Wander, 1973:361). At the same time government officials have to follow that program over a long period of time. As Morrison (1973:368) pointed out "...achieving significant changes (of the population) would require decades of sustained intervention".

Before achieving a population turnaround in Greece, rural sociologists have no other choice than to keep using "the gloomy language of rural depopulation: flight from land, lack of jobs, exodus of young

people, erosion of community institutions, difficulties in maintaining a minimum level of necessary public services, and the withering of morale in our small towns and rural hamlets" (Schwarzweller, 1979:7).

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