



#### Ειδικά Θέματα Δημογραφίας: Χωρικές Διαστάσεις Δημογραφικών Δεδομένων

**Ενότητα 4.5:** Population heterogeneity in Albania. Evidence from inter-communal mobility.

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#### Outline

Introduction

**Aim & Objectives** 

**Data Sources** 

Definitions

**Answers to research questions** 

**Main conclusions & Discussion** 

### **Introduction (1)**



Albania – A small (28.748 km<sup>2</sup>), mountainous ( $\approx$  65%), rural (57,8% rural population; 2001) country in south-eastern Europe; was the last Balkan country entering democratization and transition to an open market economy.

After WW II and until 1989, Albania was characterized by high population growth (annual rate, above 2%).

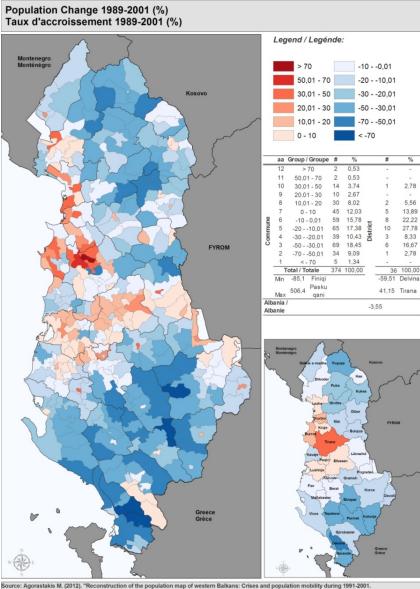
The political system established after the war -and "survived" for nearly 4 decades- controled and regulated population mobility within the Albanian territory and restricted any mobility abroad. Hence, population distribution was regulated through time and space. The "legacy" of the former political system could be summarized as:

low and controlled urbanization,

a network of medium-size urban centers, which "absorbed" part of the growing population (located mainly in the western part of the country),

"containment" of the largest part of population in rural and mountainous areas within a network of small settlements (villages).

#### Introduction (2)



The collapse of the "peculiar" socialist system of isolated Albania was followed by rapid socio-economic changes, unique in modern European history and in a very short period (12 years, 1989-2001), the country has changed dramatically.

What characterized this first period of transition and caused radical changes (even reversal of past trends) in demographic patterns were:

i) an exodus (external migration) of significant proportion of the population abroad (estimated 600.000
- 1.000.000 individuals, when 3.069.275 were enumerated in 2001 census),

ii) a rural exodus (internal migration) towards major urban centers (particularly towards the Tirana -Durres dipole) and from mountainous towards plain areas.

More specifically, two major groups of communes fueled the rural exodus: the municipalities of the north-east and those of the southern part of the country bordering with Greece; spatially separated by an intermediate zone of positive population change between 1989-2001.

#### Aim & Objectives

Subsequently, changing the place of residence prior the fall of the regime (in 1989) due to either internal or external migration, radically changed the population map of Albania, while altered the population composition of communes.

While for decades their population was relatively homogenous because of the aforementioned mobility restrictions, after twelve years of intense mobility (within the country and abroad), the weight of "permanent residents" over the total population was reduced.

These changes in population composition had a significant impact not only on the political, social, economic and cultural life of the examined spatial units, but also on their demographic structure; depending on the intensity of population heterogeneity, as well as the geographic origin of in-migrants and their differentiated demographic structure.

Given the above we aim to answer to the following questions:

i) How the intensity of heterogeneity varies geographically among 374 Albanian communes?

ii) How directional internal (inflow-outflow) and external migration relate with population heterogeneity?

iii) Are heterogeneous communes homogeneous in terms of geographic origin of the newly incoming residents?

iv) What are the demographic profiles of those residents?

#### Data Sources (1)

#### Population and Housing Census 2001 (INSTAT):

- Census available in individual records (i.e. 3.069.275 records)
- Building, Dwelling, Household and individual questionnaires
- Administrative structure of 12 Prefectures, 36 Districts, 65 Municipalities, 309 Communes (374 communes), 3051 villages

No post-enumeration survey, quality "fairly good" due to questions raised regarding completeness, failure to capture external migration and Albanian household structure. Age declaration good (Lerch & Wanner (2008), author's interviews with local experts in 2006)

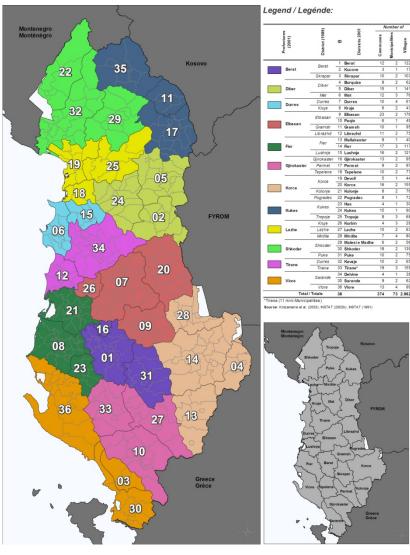
#### Population and Housing Census 1989 (INSTAT):

- Census available in individual records in magnetic tape recordings (i.e. 3.182.417 records)
- Restored data: Village of residence in 1989, age and sex
- Administrative structure of 26 Districts, 2848 villages
- Completeness and declaration of age "very good", an under-enumeration of women is probable (INSTAT & UNFPA (1999) & author's interviews with local experts in 2006)

Vital statistics data from INSTAT were not available in the administrative levels of interest.

#### Data Sources (2)





As the next step, the different spatial scales- *Modified Areal Unit Problem* (*Openshaw*, 1983)- regarding the censuses had to be addressed due to:

successive administrative changes (6, between 1989-2001),

establishment of commune level, not present in 1989,

 the absence of commune level in the 2001 questionnaire regarding the place of residence in 1989 (District & village).

Data transformation to 2001 administrative structure

Village (1989)

Village (2001)

Commune (2001)

Sources: Printed maps obtained by Albanian Military Geographical Service & National Geospatial-Intelligence Agency, GEOnet Names Server (GNS) (<u>http://earth-info.nga.mil/</u>)

#### **Definition of population sub-groups (2001)**

• We considered a spatial demographic accounting exercise between two areas based on the examples of Wunsch & Termote (1978: 197) and Rees (1979), by introducing migration (internal and external); on the hypothesis of one migration per individual (change in the place of residence 1989-2001). Although migration usually is treated as a "noise" factor (closed populations); in this case we treat the effects of fertility, mortality and external migration on population change as "noise". Subsequently, based on the place of residence in 1989 we derive the following population sub-groups in 2001

Group 1: Total number of individuals that resided in the same Commune in 1989 and 2001 (Stable population)

Group 2a: Total number of individuals residing in a Commune in 2001 but not	Alive in
	1989 & 2001
residing there in 1989	(aged >=12 in
(Total Inflow – Internal migrants)	2001)

Group 2b: Total number of individuals residing in a District in 1989 but not residing there in 2001 (Total Outflow-Internal migrants)

Group 3: Total number of individuals recorded as being abroad in 1989 or 2001

Group 4: Total number of individuals aged < 12 years in 2001

Group 5: Total number of individuals with unknown or not available residence either in 1989, or in 2001

#### **Discussion (1)**

Table 1: Origin - Destination Matrix of Internal Migration

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		OUTFLOW																																				
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	23	138	0	3	2	1	129	14	2705	2	20	0	6	0	6	3	25	2	1	1	15	61	2	21893		0	2	7	5	0	00	1	0	105	635	0	412	4458
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	Population	1990 1999	1.000	10000	1000000		0.500000	10000																		1												

Source: Population & Housing Census, 1989, 2001, individually processed

48 (36x36 for Districts & 374x374 for Communes) matrices in the form of a database using crosstabulation in SPSS<sup>®</sup> and Microsoft Excel<sup>®</sup>.

\*(total/male/female disaggregated by 5-year age groups (12-14, 15-19...85+))

#### Definition of population sub-groups (1989)

• Therefore the total population of 1989 could be expressed by using 2001 population sub-groups:

$$Pop.1989_{i} = \sum [(Group1)_{i}, (Group2b)_{i}, (P_{R})_{i}]$$

where:

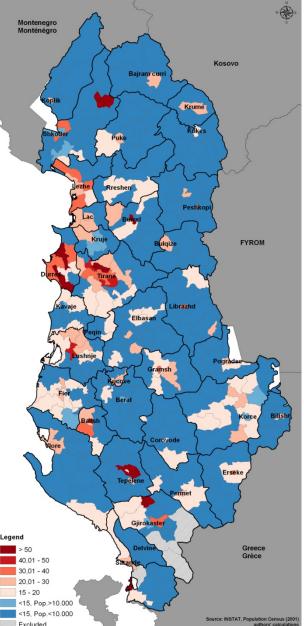
Group 1: Total number of individuals that resided in the same District/Commune in 1989 and 2001 (Stable population)

Group 2b: Total number of individuals residing in a District in 1989 but not residing there in 2001 (Total Outflow)

 $P_R$ : the share of population which includes the individuals that died in the period 1989-2001 and the individuals who fuelled external migration

*and i = 1st, 2nd,..., 374th commune* 

### **Population Heterogeneity (Q1)**



Based on the sub-groups we defined a measure of population heterogeneity as: the share of population of each Commune in 2001 that was alive during 1989-2001, did not experience any form of external migration and resided in a different Commune in 1989

 $(\text{Group2a})_i / \sum [(\text{Group1})_i, (\text{Group2a})_i]$ 

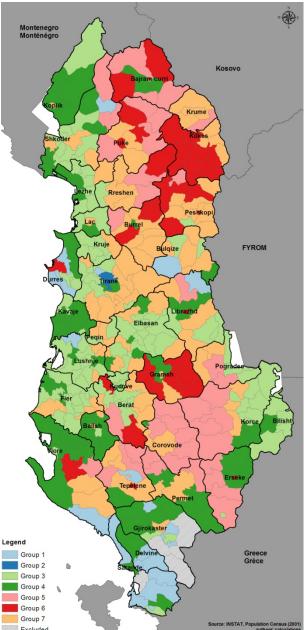
•A total of 441.845 individuals, corresponding to 14% of the 2001 population, resided in another commune in 1989 than in 2001

•126 out of 374 communes (34%), exhibit heterogeneity > 15%

• Dispersed urban centers (district capitals) followed by their corresponding neighboring communes (peri-urban)

• Coastal/Centre zone especially, the Tirana-Durres crescent, which was characterized by high population growth, i.e. the capital, Tirana, increased from 238,057 inhabitants in 1989 to 341,453 in 2001, noting an increase of 44% approximately, and Durres, second largest city by 20%.

#### Internal & external migration (Q2)



By means of statistical analyses (Two-step cluster analysis, SPSS<sup>®</sup>) and using the ratio of inflow over outflow, relevant index of external migration and the outflow over 1989 population; we derived the following typology:

<u>Group 1</u>: Heterogeneity (differentiated intensity) is due: a) to extremely high external migration, b) high inflow and c) limited outflow

**Group 2**: Heterogeneity (medium & high) is due: a) extremely high inflow, b) limited outflow and c) significant external migration

**<u>Group 3</u>**: Heterogeneity (differentiated intensity) is due: a) high external migration, b) limited inflow and c) limited outflow

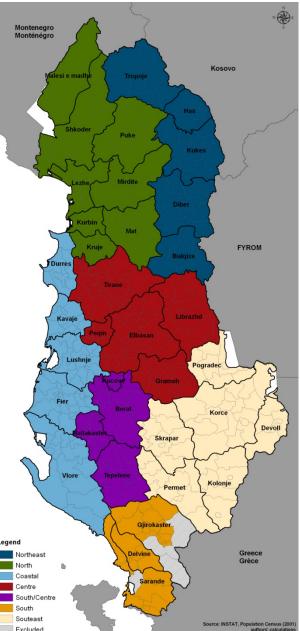
**Group 4**: Heterogeneity (differentiated intensity) is due: a) solely to external migration, b) inflow counterbalances outflow

<u>Group 5</u>: Heterogeneity (low & very low) is due: a) significant external migration, b) limited inflow and c) high outflow

**<u>Group 6</u>**: Heterogeneity (low & very low) is due: a) limited external migration, b) limited inflow and c) high outflow

<u>Group 7</u>: Heterogeneity (low & very low) is due: a) significant external migration, b) low inflow and c) limited outflow

## Geographic origin (Q3)



Population inflows are composed of distinct groups of different geographical origins. We divided Albania territory to 7 geographical administrative zones. By means of statistical analyses (Two-step cluster analysis, SPSS<sup>®</sup>) and using the (%) of the cumulative inflow originating from the communes of the same district and the corresponding (%) of each defined zone; we derived the following typology:

Group 7: Inflow solely from the same district

*Group 6*: a) very high inflow from the same district and b) low from South-east

*Group 5*: a) medium inflow from the same district and b) high from the centre

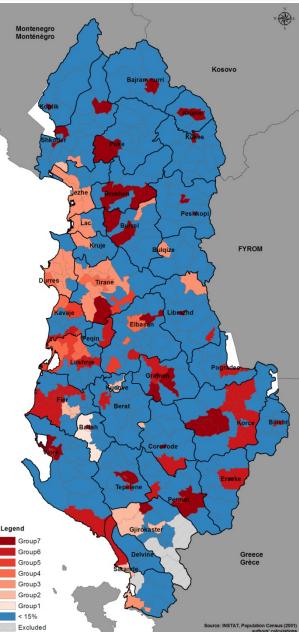
*Group 4*: a) medium inflow from the same district and b) low from North-east, medium from the centre and south-east

*Group 3*: a) low inflow from the same district and b) high from north and north-east

Group 2: a) low inflow from the same district and b) high from south/central

*Group 1*: a) extremely low inflow from the same district and b) extremely high from the coastal

## Geographic origin (Q3)



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*Group 5*: a) medium inflow from the same district and b) high from the centre

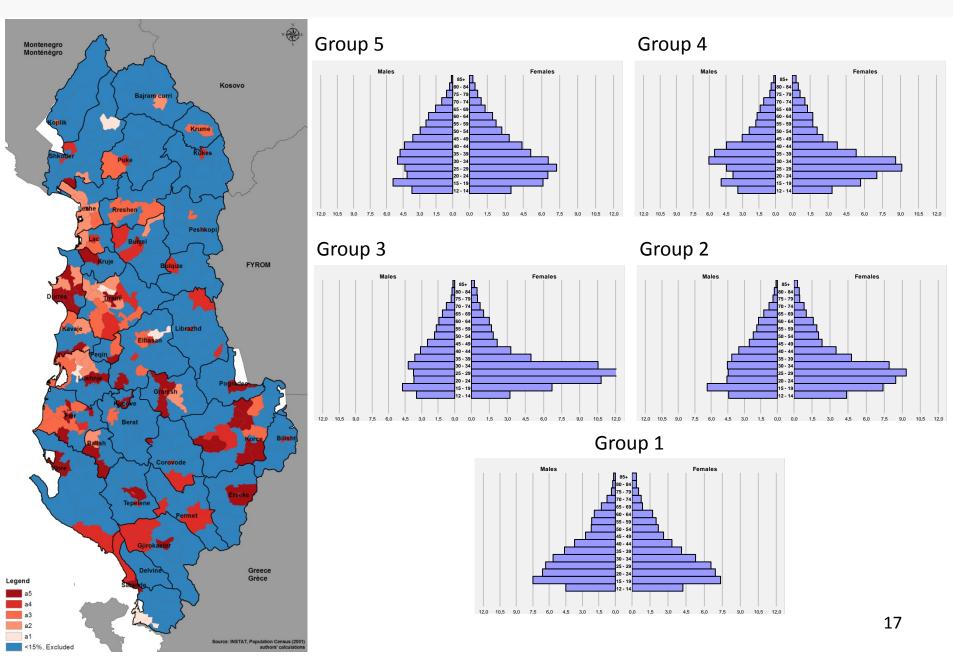
*Group 4*: a) medium inflow from the same district and b) low from North-east, medium from the centre and south-east

*Group 3*: a) low inflow from the same district and b) high from north and north-east

Group 2: a) low inflow from the same district and b) high from south/central

*Group 1*: a) extremely low inflow from the same district and b) extremely high from the coastal

### **Demographic profiles (Q4)**







## Τέλος Ενότητας



