



ΠΑΝΕΠΙΣΤΗΜΙΟ ΘΕΣΣΑΛΙΑΣ



Démographie spatiale/Spatial Demography

Session 1: Introduction to spatial demography –
Basic concepts

Michail Agorastakis

Department of Planning & Regional Development



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- Το παρόν εκπαιδευτικό υλικό έχει αναπτυχθεί στα πλαίσια του εκπαιδευτικού έργου του διδάσκοντα.
- Το έργο «**Ανοικτά Ακαδημαϊκά Μαθήματα στο Πανεπιστήμιο Θεσσαλίας**» έχει χρηματοδοτήσει μόνο τη αναδιαμόρφωση του εκπαιδευτικού υλικού.
- Το έργο υλοποιείται στο πλαίσιο του Επιχειρησιακού Προγράμματος «Εκπαίδευση και Δια Βίου Μάθηση» και συγχρηματοδοτείται από την Ευρωπαϊκή Ένωση (Ευρωπαϊκό Κοινωνικό Ταμείο) και από εθνικούς πόρους.



Concepts and definitions (1)

*“In the demographic approach **two basic concepts** of analysis can be distinguished: First is **period or epoch analysis**. This is the study of changes that may occur to the population of a given area during a period; for example, the study of its natural change and the analysis of differences between subpopulations with respect to one demographic phenomenon, an example of which might be the study of differential mortality according to age. The temporal emphasis appears in comparing successive epochs for the same area. Second is **generation or cohort analysis**. This involves the study of one cohort through time and the occurrence of one or more demographic phenomena. The method leads to a **model approach**, for example, fertility models, that may include firstly internal causes (other demographic phenomena), and then external causes (nondemographic ones).”*

Concepts and definitions (2)

*“The geographical approach also **comprises two basic concepts** of analysis: first is **spatial-differentiation analysis**, which is the study of changes that may occur in the populations of different areas during a period, without connecting them; for example, the study of the spatial aspects of death in a country. A study of this type can make use of some demographic approaches, such as the reference to standard populations with a given structure, which permit comparisons between different population structures. The second concept is **spatial-interaction analysis**, which is the study of flows from one area to other areas during a given period. Examples arise in the study of geographic traffic fields: goods traffic, diffusion of information traffic, and so on. These two basic concepts may be explained by a more general systems analysis, and the geographer will try to relate locational patterns to human decisions through stochastic processes.”*

Concepts and definitions (3)

*“As for the demographer, he usually remains in a **fixed spatial context** and does not consider the **spatial-interaction level**.”*

Source: Courgeau (1975), emphasis added

Geographical context is intrinsic in demography.....

$$P_{(t+n)} = P_{(t)} + \text{Births}_{(t, t+n)} - \text{Deaths}_{(t, t+n)} + \text{NM}_{(t, t+n)}$$

$$P_{(t+n; i)} = P_{(t; i)} + \text{Births}_{(t, t+n; i)} - \text{Deaths}_{(t, t+n; i)} + \text{NM}_{(t, t+n; i)}$$

Analysis of demographic attributes aggregated to some level within a geographic/spatial hierarchy, e.g. country level, involves a latent spatial approach.

However among demographic components (fertility, mortality and migration), only the latter combines a time and space approach by definition.

Concepts and definitions (4)

So is spatial demography all about migration?

and

it aims to “...give the study of migration “*equal importance with fertility and mortality*”?”

(Woods, 1984;p.43 , cited in Voss (2007))

Spatial demography aims to the inclusion of space in demographic concepts and models.

Within this framework, of course the role of migration is enhanced (instead of a “noise” phenomenon. i.e. closed population hypothesis), but it is not all about migration.

An intersection between demography and population geography.



ΠΑΝΕΠΙΣΤΗΜΙΟ ΘΕΣΣΑΛΙΑΣ



End of Session

