

STATUS AND FUTURE DIRECTIONS OF THE
COMPARATIVE URBAN REGION STUDY: A
SUMMARY OF WORKSHOP CONCLUSIONS

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Preface

This paper summarizes the current status of the Comparative Urban Region Study. As stated in the initial background paper for the research (Hall, Hansen, and Swain, 1975) the objective of this undertaking is "to establish and use a framework of functional urban regions to give better understanding of the impact of public policies in the fields of population distribution and economic development." Standardized spatial units of analysis are to be employed for a comparative international study of Western and Eastern Europe, North America, and Japan. The study is being coordinated through the International Institute for Applied Systems Analysis, Laxenburg, Austria in collaboration with the University of Reading, England and correspondents in participating countries.



Summary of Workshop Conclusions

The Comparative Urban Study Workshop was held at Schloss Laxenburg on October 4-5, 1975. The workshop was attended by the principal researchers from IIASA and the University of Reading, as well as by other participants from Austria, Finland, France, Hungary, Italy, Japan, Portugal, Sweden, the United Kingdom and the United States. It was made clear that participants from other countries would be involved in the project in the future.

Work completed to date has concentrated on the availability, nature, and relevance of small area data in Western Europe and on conceptual problems concerning the delineation of functional economic areas.

University of Reading researchers, under the direction of Professor Peter Hall, have prepared detailed information lists of population, employment, and population movement data for France, Italy, Belgium, Luxembourg, the Netherlands, Spain, Portugal, Norway, Sweden, Denmark, and Finland. (See the example for France in Appendix 1.) These lists, which were distributed at the workshop, were prepared from sources available at the London School of Economics and, to a lesser extent, the British Museum. In some cases workshop participants were able to provide supplementary information. (See, for example, the inventory of data for Finland in Appendix 2.) Efforts will be made in the near future to fill information gaps by gathering data from appropriate institutions and agencies in the relevant countries.

Although Hungary was the only East European country represented at the workshop, efforts are being made at IIASA to involve other countries from this area. Researchers at IIASA also will be responsible for collecting data from West Germany, Austria, and Switzerland. A considerable data base already exists for the United States and Japan, but arrangements will be made with participants in these countries to add to it and to organize the data according to the needs

of the project. For each country, data have been, or will be (if available) collected for the years 1950, 1960, and 1970 or the nearest years to these.

The most immediate research task is to identify a set of internationally comparable functional urban regions. In the initial thinking about criteria for regional definitions, it was suggested that it would be necessary to identify urban core centers which generally would have over 50,000 inhabitants. (The cores might be smaller in more remote and thinly populated areas.) Commuting data and central place considerations would be used to define the hinterlands of the urban core areas and to delineate boundaries of the functional urban regions. Thus each region would have a core and a hinterland area. This would permit analyses to be undertaken in the context of the theory that maintains that innovation and economic growth have a two-fold spatial-temporal character, i.e. they trickle down through the urban hierarchy and also spread from urban cores to their respective hinterlands (Berry, 1973).

Although this theory may prove to be valid for some countries or parts of some countries, it is also recognized that other perspectives must be taken into account. For one thing, quite extensive areas may be urbanized and industrialized. Within these megalopolitan conurbations it may be possible to identify multiple cores but core-hinterland distinctions tend to break down. Similarly, decentralization of population and economic activity from cores into former hinterlands have made core-hinterland separations less appropriate; the notion of a single "urban field" has been used to designate this phenomenon (Friedmann and Miller, 1965).

Yet another perspective attaches fundamental importance to information flows among cities. In this view, economic development and innovation diffusion problems should not be viewed in isolation from analyses of the nature and

significance of national and international contact systems, which may not correspond to the theory of hierarchical filtering and hinterland-spread (Pred and Törnqvist, 1973).

The present research effort will be structured so that all these perspectives can be tested. Where core-hinterland distinctions are not appropriate, functional urban regions will be considered as spatially undifferentiated units for analytic purposes. Moreover, the research design by no means precludes studies of contact systems (using, for example, transportation and communications data) among cores, whether or not they have a distinct hinterland.

Needless to say, these issues of definition will often have to be resolved on a judgmental basis. Nevertheless, every effort will be made to insure that international regional comparability is maintained. The area delineation process is summarized in Chart 1.

While collecting data for the area delineations it might also be convenient to begin collecting data for later analyses. Although it is difficult to quantify closely such notions as innovation and economic development, it is possible to quantify approximate indicators of these phenomena. In particular, it is desirable to have data over time on employment by sector and by occupation, on value added in industry by sector, on interregional flows, and on variables that give an indication of the well-being of people. Chart 2 shows in some detail the kinds of small-area data needed for the research; the list is not necessarily exhaustive. It should be emphasized that we are not requesting that researchers use unpublished data, i.e. confidentiality will be respected throughout this effort.

Finally, it may be noted that urban region delineations already exist for some countries and they have already been used in varying degree for analytic purposes. The 173 Bureau of Economic Analysis regions of the United States

Chart 1: Area Delineations

A. Define Nodes

Criteria: Population > 50,000
No significant commuting to other nodes

B. Define Hinterlands

Criteria: Assure high degree of closure of employment and residence within region
Contiguity of minor civil divisions
(counties, communes, etc.)

Procedure: Allocate minor civil divisions to nodes, exhausting the national territory, using, in order of preference:

- (1) commuting data
- (2) central place data
- (3) isochrons

C. Special Cases

- (1) Conurbations and "urban fields" which have no distinct hinterlands
- (2) Sparsely populated areas, where the size criterion for the node should be relaxed in order to pick up key trading centers

Note: Delineations should be made using the most recent data, which usually will be for 1970 or a year close to 1970. Data for earlier years should be aggregated according to these fixed boundaries.

Chart 2: Small-Area Data Needs

Demographic

Population size; age and sex composition; immigration and outmigration flows (by age and sex where possible); life expectancy; morbidity and mortality by cause; education levels.

Employment

By sector (preferably at the 3-digit SIC level) and occupation.

Consumption

Median family income (by source of earnings if possible); income distribution; consumption patterns; health measures.

Social Infrastructure

Stock and flow of investment in schools, hospitals, roads, etc.; levels of provision of public services; measures of access to public services.

Production

Value added by sector (preferably at the 3-digit SIC level); possible measures of innovation.

Interregional Flows

Immigration; outmigration; goods flows by rail, road and air; airline passenger traffic; telex, mail and telephone call data; mass media patterns, e.g. information fields based on content analysis of newspapers.

(Berry, 1973) and the 70 A-regions of Sweden (Pred and Törnqvist, 1973) exhaust the respective national territories. In both cases, a considerable amount of data is available by core and hinterland areas, though in some regions it is not really meaningful to distinguish between core and hinterland. Urban regions with cores and hinterlands have been defined and analyzed for Great Britain (Hall et al., 1973) but they do not exhaust the national territory. Urban regions have been defined and analyzed for Japan (Glickman, 1975) but they do not have a core-hinterland breakdown and they do not exhaust the national territory. They do, however, account for approximately 70 percent of Japan's total population.

Appendix 1

Sample of Information Gathered in London
for Countries Being Studied by the
University of Reading: The Case of France

FRANCE

A. Data Requirements

I. Population Data

1.1 Hierarchy of National Areal Units

national	-	French Republic	-	Republique Francaise
intermediate	-	department	-	departement
	-	district	-	arrondissement
	-	canton	-	canton
local	-	commune	-	comune

1.2 Smallest Population Unit

1.2.1 Average Area

1954 -) Census: Population Legale Table (1)
 1962 } " " " "
 1968) " " " "

1.2.2 Average Population

1954 -) Census of Population (Vol I) Appendix B
 1962 } " " " "
 1968) " " " "

1.2.3 Regional discrepancies of smallest unit area size

1954 -)
 1962 -)) obtained from 1.2.1
 1968 -)

1.2.4 Type of Unit - administrative

1.2.5 Smallest unit boundary changes

1954 -) Census of Population (Vol I) Appendix A
 1962 - } " " " "
 1968 -) " " " "

1.2.6 Maps of Smallest Units

1954 - Census of Pop. (Vol I)
 - Census : Departmental Results (town maps)
 1962 -
 1968 - Census: Z.P.I.U 1968
 Census: Towns & urban agglomerations

1.2.7 Data Variability

1954 -) Volumes on population same except -
 1962 } 1962 uses towns > 9,000
 1968 } 1968 " " 10,000

1.2.8 National Indexes of Smallest Units

1954 - Census: Population (Vol I) - end. Census : Population Legale - end
 1962 - } Census: Towns & Urban Agglomerations - end
 1968 -)

1.3 Data for Grouping of Units

1.3.1 Data for larger population units (regions & provinces)

1.3.2 Data for grouping of smallest units (urban/rural zones) and definitions used

1954 - Census of pop. (Vol I) Appendix E: Pop. of Towns > 10,000
: Agglomerations of communes

- Census : 5% sample: Pop. Households & Lodgings
(for all France, depts., large agglomerations & large towns)
- T(1) list of agglomerations & separate towns
- T(2) total pop. by dept., giving total municipal pop.
- Census: Population Legale
- T(3) Pop. of communes > 5,000 pop., 1876-1954 (area & density also)
- T(10) Pop. of communes up to 2,000 pop. in main town & in other communes by dept., 1954-1872
- T(11) distribution of pop. in urban units and rural units by dept., (by pop. size of units)
- Census: Departmental Results: Population in agriculture etc., for rural communes
- Census: Towns & Urban Agglomerations - list of urban areas & separate towns by dept., (90) (giving total pop. 1936, 46, 54; municipal pop. including total number in urban area) Appendix (b) urban & rural pop. groups by dept. (and no. of units in each)
- Appendix (c) urban areas > 20,000 pop. in rank order
(total pop. 1936, 46, 54, depts., no. of communes in each)

Appendix (d) urban pop. in Seine area

Definitions (1946) - rural commune = up to 2,000 pop. in main town & agricultural character

urban commune = (1) contiguity factor important
(2) not an economic basis, but are based on family existence, and dependence on urban life

1962 - Census: Vol I - end - tables of incr./decr. % population for depts., towns > 150,000 pop. etc.

- number & total pop. of communes in dept. with greater or less than 2,000 pop. in main town
- towns with > 9,000 pop. (giving total pop. no. of depts., municipal pop.)
- communes with main town < 250 pop.
- census: Population Legale
- T2(c) Pop. in 1876-1954, 1962, area, density in 1962, for agglomerations & separate towns > 50,000 pop. in 1962
- T2(d) pop. 1876-1962, area, density in 1962 for communes > 50,000 pop. in 1962
- T3(a) Comparison between 1936 and 1954 censuses: Variation in pop. 1954-1962 by dept., and for total urban & rural communes in each dept.
- T3(b) Comparison between 1936 and 1954 censuses: variation in pop. 1954-62 for towns & urban agglomerations > 50,000 pop.
- T3(c) Comparison between 1936 and 1954 censuses: variation in pop. 1954-62 for ranks of urban pop. & category of rural commune, & ZPIU

- Census: Towns and Urban Agglomerations
 - T(5) dept., division of urban units
 - T(6) urban units > 2,000 pop. classed by pop. 1936,54,62
 - T(7) list & composition of urban agglomerations & separate towns by dept.
 - T(8) Summary Tables - total pop. towns & urban agglomerations, rural communes 1954,62
- Census: Towns > 5,000 population
 - T(1) classed in order of importance (giving pop., municipal pop. etc 1934,54,62)
- Definitions (1962) - "Population Urbaine" in "agglomerations urbaines" i.e. (a) "agglomerations multicommunales" - composed of communes contiguous to each other
 - (b) "communes urbaines isoless" - have within their boundaries an agglomeration of > 2,000 pop. (with contiguous houses not further apart than 200 m.)
- Separation of urban and rural population is not comparable to previous ones, because of reinstatement of 'bulletin 2B' and extension of definition of agglomeration perimeter, which increases the urban population of all communes and therefore increases no. of communes with > 2,000 pop. in main town .
- "Z.P.I.U" - zones of industrial or urban population - larger than "agglomerations urbaines" where.-
 - (a) there is certain homogeneity of people and in particular a scanty agricultural population
 - (b) there are important labour exchanges
 - (c) industrial activity is evolved or developed because of the nearness of a large town, richness of sub-soil, or presence of large communication axis. All urban agglomerations are included in ZPIU which comprise in additions the dormitory communes and other satellite communes with little agricultural activity.
- 1968 - Census of pop. (Vol I) - end (see 1962)
 - Census: Population Legale (see 1962)
 - Census: Towns and Urban Agglomerations
 - T(A) agglomerations - no. of depts., communes, 1962&68 pop. of aggloms.
 - T(B) international agglomerations (1962,68 pop. country included & depts., no. of communes)
 - T(1) population evolution 1962-8, 1954-62 (1954 & 62 definitions used) for urban units & communes (given by dept.)
 - T(2) Demographic evolution 1962-8, 1954-62 (1954 & 62 definitions used) for urban units > 10,000 pop. (ranked)
 - T(3) urban and rural structure by dept. (ranked)
 - T(4) Demographic evolution 1962-8,1954-62, for urban units and rural communes, regrouped in order of importance for regions of France
 - T(5) urban pop. evolution for each dept. between 1962-68 (1962&68 def.)
 - T(6) Demographic evolution 1962-8, 1954-62 of communes, sectors, & principal zones of Parisien agglomerations
 - Census: Communes > 2,000 population
 - population for 1962, 1968, 1851-1968 (giving municipal pop.)
 - no. and pop. total in communes up to 2,000 in main town
 - census: Z.P.I.U
 - T(A) agglomerations (giving depts, no. of communes, total pop. for 1962,1968)

- T(B) international agglomerations
- T(1) demographic evolution by ind./urban zone, urban unit & commune
(classed by dept.)
- T(2) demographic evolution 1962-8, 1954-62 of ZPIU urban units & urban/
rural parts in them (by dept.)
- T(3) demographic evolution 1962, 1954 for ZPIU of less than 10,000 pop.
(ranked)
- T(4) Structure of ZPIU (in pop. groups)
- T(5) Demographic evolution 1962-8, 1954-62 for urban communes, rural
communes, in & not in ZPIU (by dept., region, ZEAT)
- T(6) Demographic evolution 1954, 62 of communes in/out of ZPIU by regions
only (in pop. size groups)
- T(7) evolution of resident pop. in ZPIU by 1962 & 68 definitions (by
name of dept, region, ZEAT)

Definitions (1968)

- (a) urban units - Can spread over 2 or more communes (agglomerations)
- or just over one commune with less than 2,000
pop. in main town (separate town)
 - (b) ZPIU - urban or industrial zones. Greater extent than (a) & env-
elope all (a). Also include rural areas where a high %
of commuters, non-agric. pop. & pop. growth
- Annuaire Statistique de la France, 1969 (INSEE)
p.18 - Subdivision of pop. in regions (giving name of main town, pop.
altitude)
 - Population Evolution @Regional & Urban Level, 1962-68 (INSEE)
Cha. 2 - evolution of towns & agglomerations less than 50,000 pop.
(dept. 7 region results, Paris region results, results
for communes of > 50,000 in Paris suburbs, results for
urban units > 50,000 pop.)
- 1.3.3 Data for different units for same area & definitions used (i.e.
physically urban areas)
- 1.4 Population Density Data
- 1.4.1 Average population density in smallest units
- 1954 - Census: Population legale
T(1) Pop. area, density by dept. & arrondissement 1976-1954
- 1962 - Census: Population legale
T(2c) pop. 1976-1962 - area, density in 1962, for agglomerations &
separate towns
T(2d) pop. 1876-1962 - area, density in 1962 for communes less than
50,000 pop.
- 1968 - Census: Population legale
- Annuaire Statistique de la France p.17 - density of arrondissements,
cantons & communes
- 1.4.2 - Sample densities for smallest units to show regional urban/rural
differences
- obtained from 1.4.1 data
- 1.5 Population Changes
- 1.5.1 Average % change for smallest units compared to National figure

(1.5.1 ctd.)

1954 - Census of population (Vol I) Appendix B - total dept. pop. 1934-54
Variations % change etc.

- Census: Population Legale - tables of internensul variation - 1954

1962 - Census of pop. (Vol II) - table of incr./decr. % pop. for depts.
& other statistical information

- total pop. of depts. 1936,54,62, (1954 definition) % of changes.

- census: Population Legale

T(3a) comparison between 1936-54 censuses - variation in pop. 1954-62
by dept. & for total urban & rural communes in each dept.

T(3c) variation in pop. 1954-62, for ranks of urban pop. & category
of rural commune & ZPIU

1968 - Census of pop. (Vol I) - end of tables

- census: Population Legale

T(1) communes 1962-8, - % change pop.

- census: Towns & Urban Agglomerations

T(1) pop. evolution 1962-8, 1954-62, for urban units & communes

1.6. Error

1.6.1 Errors in Census Data collection

1.6.2 Methods to Eliminate Errors

1954 -) see intro. to census of pop.

1962 -)

1968 -)

1.6.3 Sample population Data Sources

1954 - Census: 5% Sample Active pop.

- Census: 5% sample population structure

$\frac{5}{2}$ - Census: 5% Sample Pop., Households & lodgings

1962 - Census: Migrations 1954-62 (5% sample)

1968 - Census: 5% sample active population

- census 5% & 25% sample pop. structure

1.7. Studies/References

1.7.1 List of Studies Related to Metropolitan definition

1) Porte J. - 'L'utilisation des agglomerations pour le prochain recensement de la population de la France' in Population April/June 1954 - p.333

2) Bastie J. 'La Croissance de la barliene parisienne' (1964)

3) Baudot M. 'Les doctrines de l'urbanisme appliquees a Paris et dans le departement de la Seine' in Chaiers du Musee Social, Paris 1943

4) Essai de classement hierarchique des principales villes -
Commissariat General du Plan Paris 1963

1.7.2 References concerning population studies

1) Noin D. - Geographie demographique de la France (1973) -

2) INED - 'L'Analyse demographique: methodes resultants applications -

3) INED - Pressat R. 'L'analysis demographique' 2nd ed. 1969 -

- 4) INED - Travaux et Documents - Cahiers no.3 "Une enquete par sondage desires de Francais en matiere d'habitation urbaine" -
- 5) - no.8 Depeuplement rural et peuplement national: six enquetes
- 6) - no.17 Vues sur l'economie et la population de la France jusqu'en 1970
- 7) - no.30 - Region Largedoc: Rousillon economique et population
- 8) - no.34 George P. "Questions de geographie de la population"
- 9) - no.43 'Le peuplement de Paris'
- 10) - no.49 Clerc P. "Grands ensembles, banlieus nouvelles enquete demographique et psycho-sociale" -
- 11) - no.50 Baudit J. "Conditions de vie et d'emploi des jeunes travailleurs" 1968
- 12) - no.51 Hugues P. & Beslier M - "Les professions en France - evolution et perspective 1969
- 13) - no.58 Courgean D. 'Les champs migratoires en France' 1970
- 14) - no.59 Merlin P. 'L'exode rural' 1971
- 15) - no.67 Tugault Y. 'La mesure de la mobilite'
- 16) - Coppolari J. - 'Toulouse, etude de geographie urbaine' 1954
- 17) Vincent P. 'Liste des agglomerations francaise de > 5,000 habitants par order d'importance decroissante' in Population, July/Sept, 1952 p.53)
- 18) INSEE Collections R(regions) - 'Etudes de demographie regionale - Muet P. Bolton P., Cazin F. -
- 19) INSEE - Population by Commune 1851-1868 for Orleans Region - R(OS) Y 1765
- 20) Chombart de Lauve P. et al "Paris et l'agglomeration Parisienne I L'espace social dans une grande cite II methodes de recherches pour l'etude d'une grande cite" Paris 1952
- 21) Korzybski S. 'Le profil de densite des populations dans l'etude des zones urbaines de Londres et de Paris' in 'Urbanisme et Habitation' Paris 1954 p.113-156
- 22) Cantome J.C. 'Bordeaux, pole d'attraction demographique' in 'Revue juridique et socio-economique du sud ouest' series Economique, Bordeaux, no.2 1957 p.361-392
- 23) 'La structure de la population active des agglomerations Francaises de plus de 20,000 habitants - methode d'etude, resultats' in Annales de Geographie Paris 1960 p.355-370 (Le Guen C.)
- 24) Housset D. 'Le tiers de normandes reside dans les trois principales agglomerations de la province' in 'Entreprise Normande' Paris Nov.1962
- 25) Mols R.P. 'L'accroissement de la population de la France selon les regions et l'importance des agglomerations' Population - Paris no.2 1963 pp.263-294
- 26) Roltrer G. 'Aspects de la croissance urbaine, 1954-1962 in 'Consommation' July/Sept. 1963
- 27) L'urbanisation francaise. Centre de Recherche d'urbanisme Paris 1964
- 28) 'La croissance urbaine et les problemes d'urbanisation' in 'La Documentation Francaise' Paris 16/8/65
- 29) 'L'urbanisation des grandes et moyennes agglomerations' in 'Expansion Regionale' Paris April 1966

II Employment Data

2.1 At Workplace

2.1.1 Definition of Active Population

1954 - Census: 5% sample pop. households & lodgings

Census: 5% sample, active pop.

1962 - Census of Industry

1968 - Census: 5% sample active pop.

2.1.2 Industrial/Employment Classifications

1954 - Census: Movement Abrejee des Entreprises etc.

- Census: 5% sample active pop.

1962 - Census of Industry

1968 - Census: 5% sample active pop.

2.1.3

- Data according to classification for smallest units available
(for residence and workplace)

2.2.2 Proportion of Primary/Secondary/Tertiary etc. (or agric./non-agric. pop.) per area of residence and workplace

1954 - Census: 5% sample active pop.

(1) general tables - active pop. by socio-economic status & category
for dept. of residence & active pop's activity group
(p.384 (3) Active pop. having employment by dept. of work
residence & economic branch (for dept. arrondissement, commune)
(p.210 (2) active employed pop. - by activity group & status
for depts. of residence.

-Census: 5% sample pop. structure

T(4) active pop. (in dept. of residence) - by socio-economic group
& branch of activity

-census: departmental results

(2) active pop. by occupation & status (in dept. of residence)

(4) active pop. by economic activity (for isolated towns, urban
agglomerations of residence) & rural communes grouped by canton

1962 - Census of Industry

1968 - Census: 5% sample active population

2.1.4 Average Income @ Workplace

1954 - Census: 5% sample active pop. ((a) volume)

(a) salaries - for all France, by activity

(b) salaries in employment, by age, sex, activity, status

1962 - Census of Industry

1968 -

2.5.1 Regional Income Variations for some occupations

2.2 By Place of Residence

2.2.1 Occupation/Socio-Economic Classifications & definitions

1954 - Census: 5% sample active pop.

1962 -

1968 - Census: 5% sample active pop.

2.3 Refs/Studies of National Employment

- 1) UN Statistical Publications - Direction generale du travail et de l'emploi (irregular migration of employed working pop. 1954-62 (irregular))
- 2) INED Travaux et Documents Cahiers no. 50 (see 1.7.2) no. 51 " "
- 3) Centre d'Etudes de l'Emploi - Cahiers (1) - 'L'analyse de l'emploi par region et dept.' 1973 -
- 4) - Cahiers (4) Hugues, P. (et al) 'Les emplois industrielles'

III

- 5) Belleville G. 'Morphologie de la population active a Paris' ' Etude des categories socio-professionnelles par arrondissements et quartiers' Paris 1962
- 6) Delsant P. 'Population active et emploi dans la conurbation de Lille - Roubaix - Tourcoing - Armentieres' in 'Hommes et Terre du Nord' Lille, 1965 p.37-56

III Population Movement

3.1 Daily Patterns

3.1.1 Commuting between smallest units

3.1.2 Modes of Transport/transport network analysis

1954 - Census: 5% sample active pop. T(4) commuters

3.1.3 Data for Car Ownership

3.2 Migration

3.2.1 Migration between zones

1954 - Census: Population legale

T(8) Migration (net) between 1946-54 in towns less than 50,000 pop. (by dept.)

1962 - Collections of l'INSEE "Les migrations entre regions et an nouveau categories de commune de 1954 et 1962" Schiray M. Elie P. - Census of pop. 2: Migrations 1954-62 (1/20 sample)

- 1968 - Collections of l'INSEE
"Population Evolution at the regional & urban level, 1962-8"
- Calot G. et al
Cha. 2 - evolution of towns & agglomerations less than 50,000 pop.
T(1) results by dept. & region (migration 54-62, 62-68)
T(2) results for Paris region
T(3) results for communes less than 50,000 in Paris suburbs
T(4) results for urban units of less than 50,000

3.2.2 Immigration/Emigration, sources & destinations

- 1954 - Census of jpop (Vol I) (immigration)
T(1) pop. of depts. - foreign pop. figures
Appendix D - % foreign pop. in each dept.
- Census: Population Legale
T(2) Foreign pop. (for dept., arrondissement, canton 1876-1954)

1962 -

1968 -

3.2.3 Gross/Net Migration as interpolated from Birth/Death Rates data for smallest units

- 1954 - Census of population (Vol I) Appendix B - total dept. pop 1936-54 variation % changes etc
- 1962 - Census of pop. (Vol I) Appendix B - total dpt. pop. 1936-62 (54 def.)
- % changes, variations etc
- census: population legale
T3(a) comparison between 1936-54 census - variation in pop. 1954-62 by dept. & for total urban & rural communes in each dept.
- 1968 - Census: Population legale
T(1) Communes - pop. variation, % change
- Collections de l'INSEE 'Pop. Evolution at the Regional and Urban level 1962-8'
Cha. 2 - evolution of towns and agglomerations less than 50,000 pop

3.2 References/Studies of Population Movement

- 1) Millot B. 'Capital humain et Migrations interregionales 1971'
- 2) Tugault Y. 'La mesure de la mobilite' 5 studies on inter regional migration 1973
- 3) INED - Travaux et documents - cahiers no.58,59,67 (see 1.7.2)
- 4) Schiray M. et Elie P. 'Les Migrations entre regions et au niveau categories de commune de 1954 et 1962'
- 5) Carriere P. et Lacroix G. 'Les déplacements quotidiens des travailleurs dans la ville de Marseille' in Revue de la Chambre de Commerce de Marseille - Marseille Sept/Oct 1963 p.533-561 ()
- 6) Chamier J.B. 'Problemes de l'exode rural: l'attraction demographique de Nevers, Dijon, Paris sur les communes nevoles de la Nieve et de la Cote d'or' in 'Revue Geographique de l'Est' Nancy, April/June 1964 p.145-162

- 7) Chatelain A. 'Les migrations hebdomadaires de détente dans la région parisienne' in 'Etudes de la région parisienne' Paris Oct 1964 p.8-21 ()
- 8) Migrations alternants dans la région parisienne (Les) - Bulletin régional de statistiques - Paris no.1 1964 p.25-28
- 9) Migrations alternants dans la zone de Bordeaux en q 1962 (Les) - Bulletin régional de Statistiques, Bordeaux no.1 1964 p.11-16
- 10) Lucchi A. 'Les migrations alternants dans la région parisienne' in 'Annals de Géographie' Paris Jan/Feb 1966 p.39-56

IV Other Relevant Data

- 4.1 Lists of Organizations from where statistical data is obtainable
 - 1) Institute National de la Statistique et des Etudes Economiques (INSEE) 29, Quai Branly, Paris 7
 - 2) Institute National des Etudes Demographiques

Appendix 2

Sample of Information Supplied by Country
Participants at the October 4-5, 1975 Workshop:
The Case of Finland

An Inventory of Statistics for Finland

General Censuses every 10th year. For the Censuses of 1960 and 1970 there are data for the following regions: towns and municipalities (together = urban communes), rural communes, non-administrative urban settlements in rural communes, provinces and statistical regions.

The following data are available:

1. Population and some data on the structure (language, education, age structure) by provinces, statistical regions, communes and non-administrative urban settlements.
2. Population by age, sex and marital status in whole country, urban and rural communes and in non-administrative urban settlement areas in rural communes.
3. Population by industry and industrial status, by provinces, statistical regions, communes and non-administrative urban settlements.
4. Economically active population by industry (3-digit level) and industrial status, whole country, urban communes.
5. Economically active population by commune of residence and working place, by industry (data of journey-to-work).
6. Families by socio-economic status of head, housewife's economic activity and number of children under 18 years of age, whole country, urban and rural communes and non-administrative urban settlement areas in rural communes.
7. Households by size for provinces, statistical regions, communes and non-administrative urban settlements.
8. Residential buildings by year of construction and number of dwelling units and other buildings by use, by provinces, statistical regions, communes and non-administrative urban settlements.
9. Dwelling units by year of construction, by provinces, statistical regions and communes.

Many other social and economic variables are available for provinces, statistical region and special regions but not for communes, e.g. trade, transports and communications, income and property, consumption and prices, education.

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