



university of
 groningen

faculty of spatial sciences

Examples of longitudinal research projects in Economic Geography

behavioral and demography-of-firms approaches

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Urban and Regional Research Institute URSI

Contents of this lecture - 1

- Longitudinal research projects
- The behavioral approach
- The demography-of-firms approach
- Longitudinal behavioral research: the changing mental map of Dutch entrepreneurs
- Longitudinal firm demographic research: new firms, firm closures, firm migrations

Longitudinal research projects

- Just like all social scientists, economic geographers are not too happy to repeat existing research projects
 - Most of all they want to enter new research fields, new topics
- BUT
- Surveys repeated at regular intervals with identical methods and questionnaires are the only true measures of changing spatial-economic structures

The changing paradigm of Economic Geography

Dominant views in the past century:

- **The neo-classical approach** (20th century)
(von Thunen, Weber, Christaller)
- **The behavioral approach** (1970s and 1970s)
(Simon, Pred, Downs&Stea)
- **The institutional approach** (1980s and 1990s)
(Martin, Scott, Barnes)
- **The evolutionary approach** (present)
(Nelson&Winter, Granovetter, Storper, Boschma)

The behavioral approach

- Was supreme in the 1960s and 1970s
- Bounded rationality and satisficing behaviour
- No longer prominent among economic geographers now
- But: institutional and evolutionary approaches embrace behavioral principles
- And in economics, behavioral thinking is hot! (Nobelprize 2002 Kahneman)
- Illustration of longitudinal behavioral research: the changing mental map of Dutch entrepreneurs

The demography-of-firms approach

- This is not a theoretical but a *methodological* approach! A research strategy.
Analyse populations of firms like a demographer analyses populations of people
- Founding father: David Birch (1979)'The job generation process'
- Basic idea: find the real causes for regional economic growth or decline by unravelling changing employment figures to its components:
firm birth, firm growth or decline, firm migration, and firm closure
- In our department, we chose this method as a research focus

Employment 1992: 854,000 jobs

Growth of existing firms

Balance of new firms and firm closures

Growth of firms relocated within the province

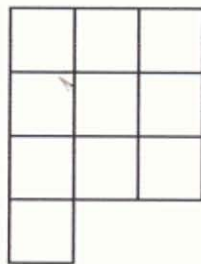
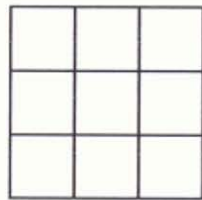
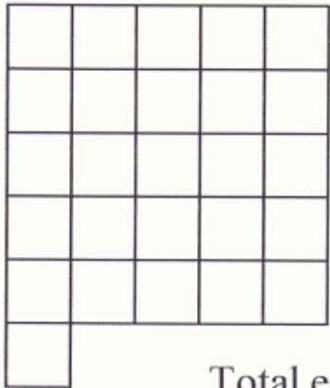
Employment balance of external relocations

26,000

9,000

10,000

6,000



Total employment growth: 50,000 jobs

Employment 1996: 904,000 jobs

WHAT IS THE RELATIVE IMPORTANCE OF JOB GROWTH IN
1) NEW,
2) EXISTING, AND
3) MIGRATING FIRMS ?

(Dutch province of North Brabant)

Contents of this lecture - 2

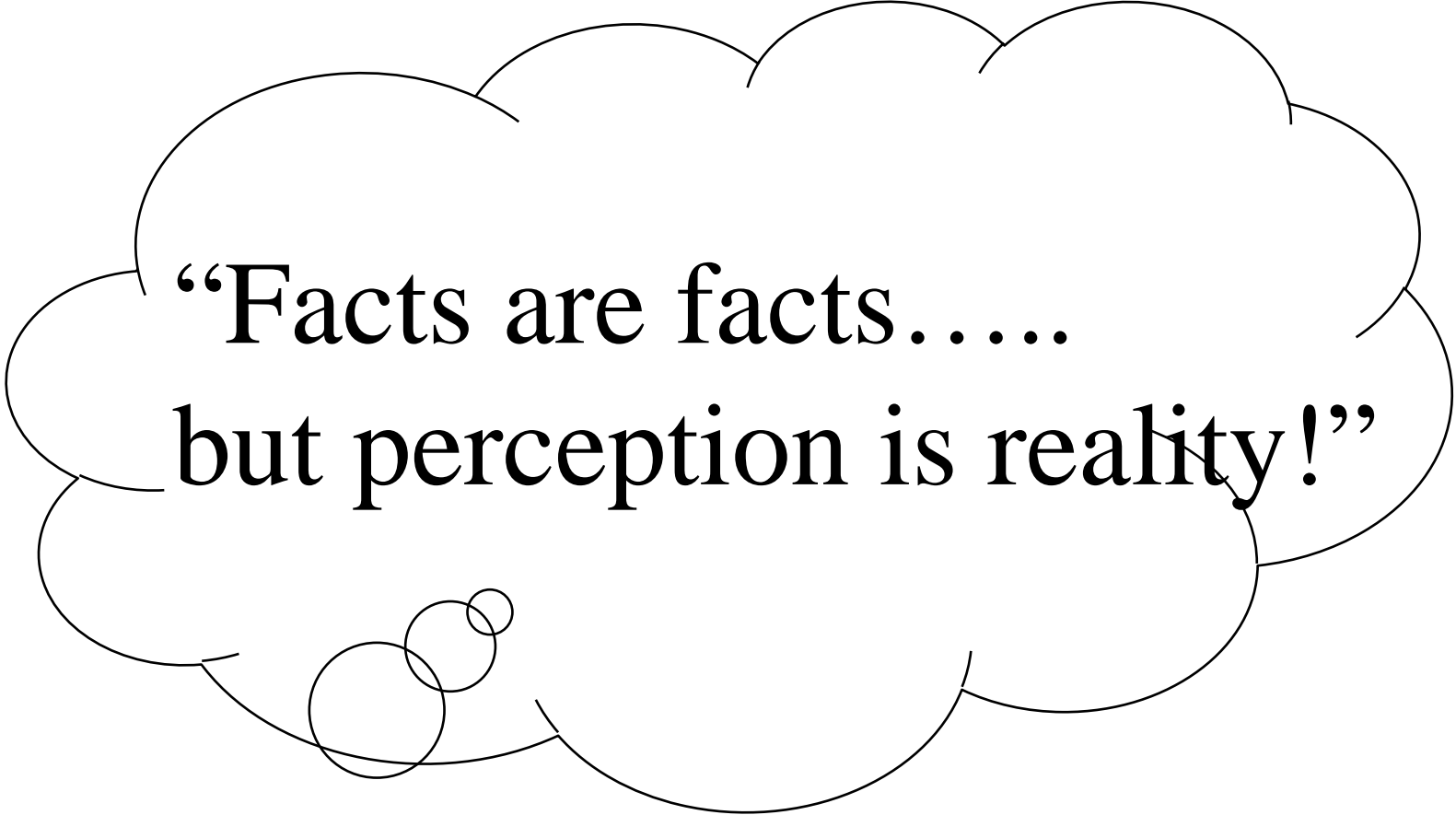
- Longitudinal research projects
- The behavioral approach
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An example of longitudinal behavioral research

The changing 'mental map' of Dutch entrepreneurs

This is a selection of the results of the long term (1983-2003) research line concerning subjective valuation of location environments by entrepreneurs in the Netherlands and Germany of dr. W.J. Meester and prof.dr. P.H. Pellenbarg, Faculty of Spatial Sciences, University of Groningen, the Netherlands

Albert Einstein



“Facts are facts.....
but perception is reality!”

PLACES TO BE VALUED AS POSSIBLE FIRM LOCATIONS



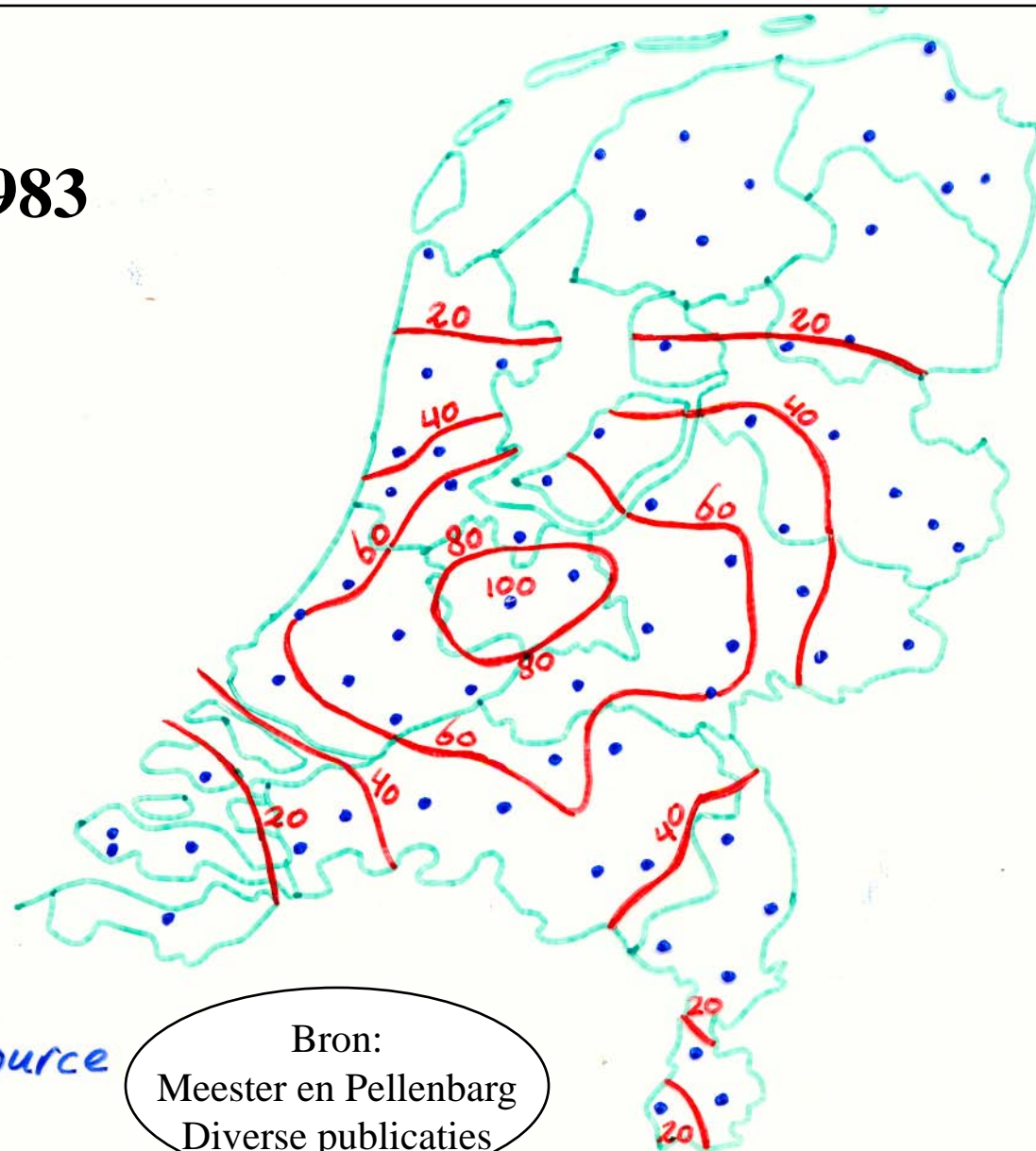
Bron:
Meester en Pellenburg
Diverse publicaties

VALUATION (RANKING) OF LOCATIONS AT THE TIME OF THE FIRST SURVEY, IN 1983

1. UTRECHT	100	15. DEN HAAG	61
2. AMERSFOORT	90	16. NIJMEGEN	60
3. ROTTERDAM	82	17. LEIDEN	57
4. HILVERSUM	79		
5. GOUDA	73	21. EINDHOVEN	54
6. ALMERE	72		
7. EDE	71	51. MAASTRICHT	20
8. GORKUM	69		
9. AMSTERDAM	68	55. GRONINGEN	14
10. ARNHEM	68		
11. APELDOORN	66	70. WINSCHOTEN	0

AVERAGE VALUATION OF LOCATIONS

1ST SURVEY, 1983

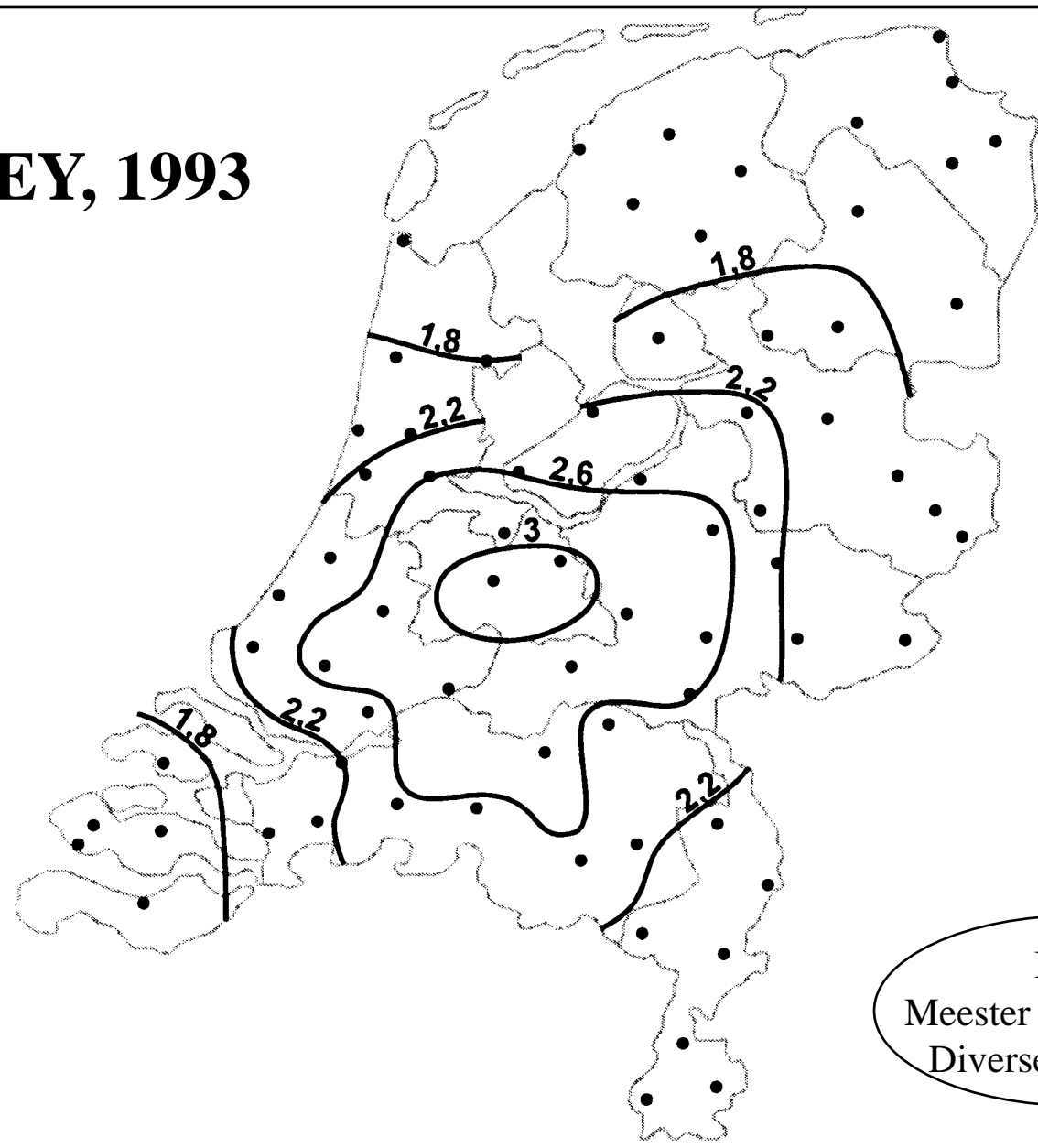


Source

Bron:
Meester en Pellenburg
Diverse publicaties

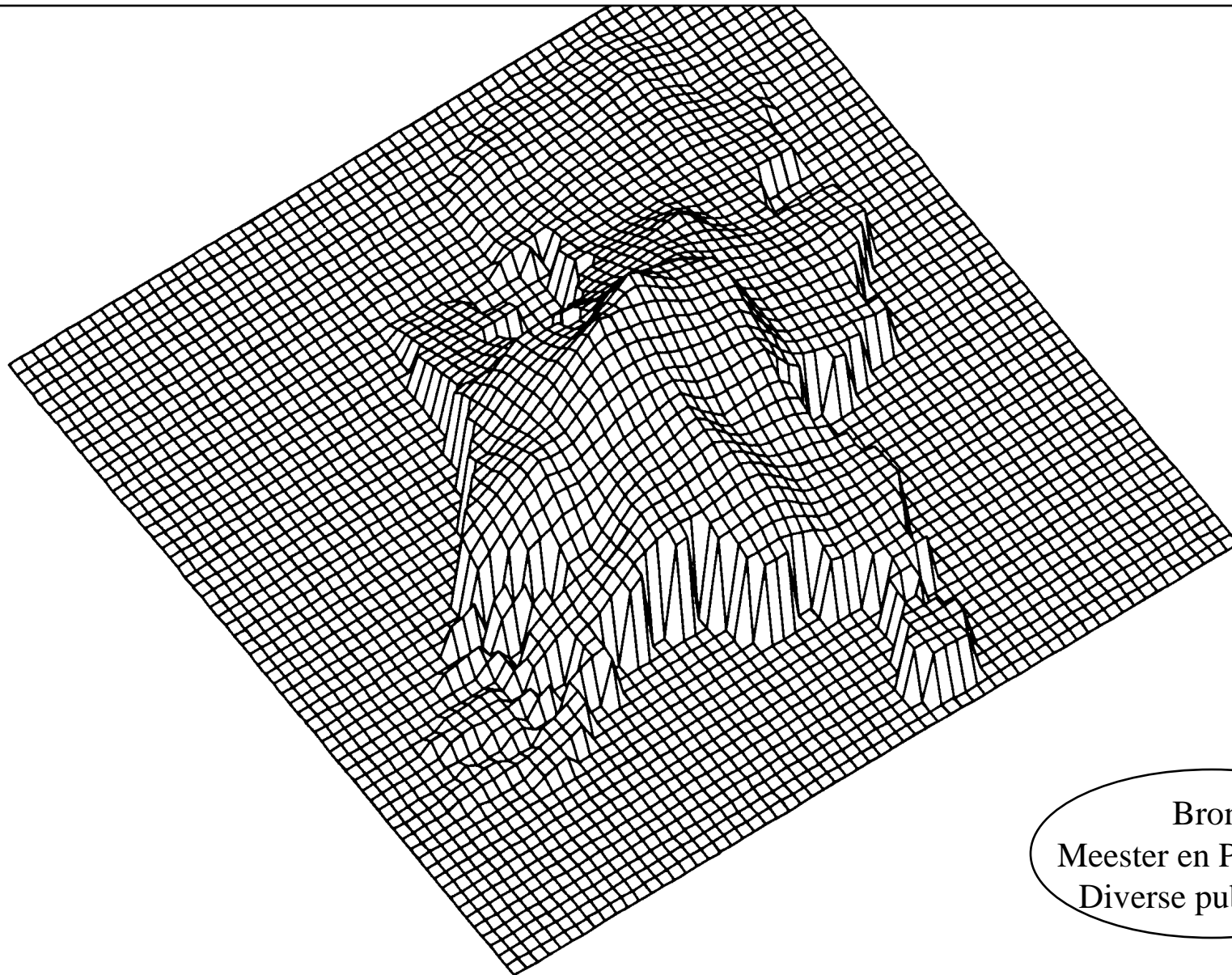
AVERAGE VALUATION OF LOCATIONS

2ND SURVEY, 1993



Bron:
Meester en Pellenbarg
Diverse publicaties

3-DIMENSIONAL REPRESENTATION OF THE AVERAGE VALUATION OF LOCATIONS IN 1993



Bron:
Meester en Pellenbarg
Diverse publicaties

AVERAGE VALUATION OF LOCATIONS

3rd SURVEY, 2003



CHANGE IN AVERAGE VALUATION

1983-1993

1993-2003

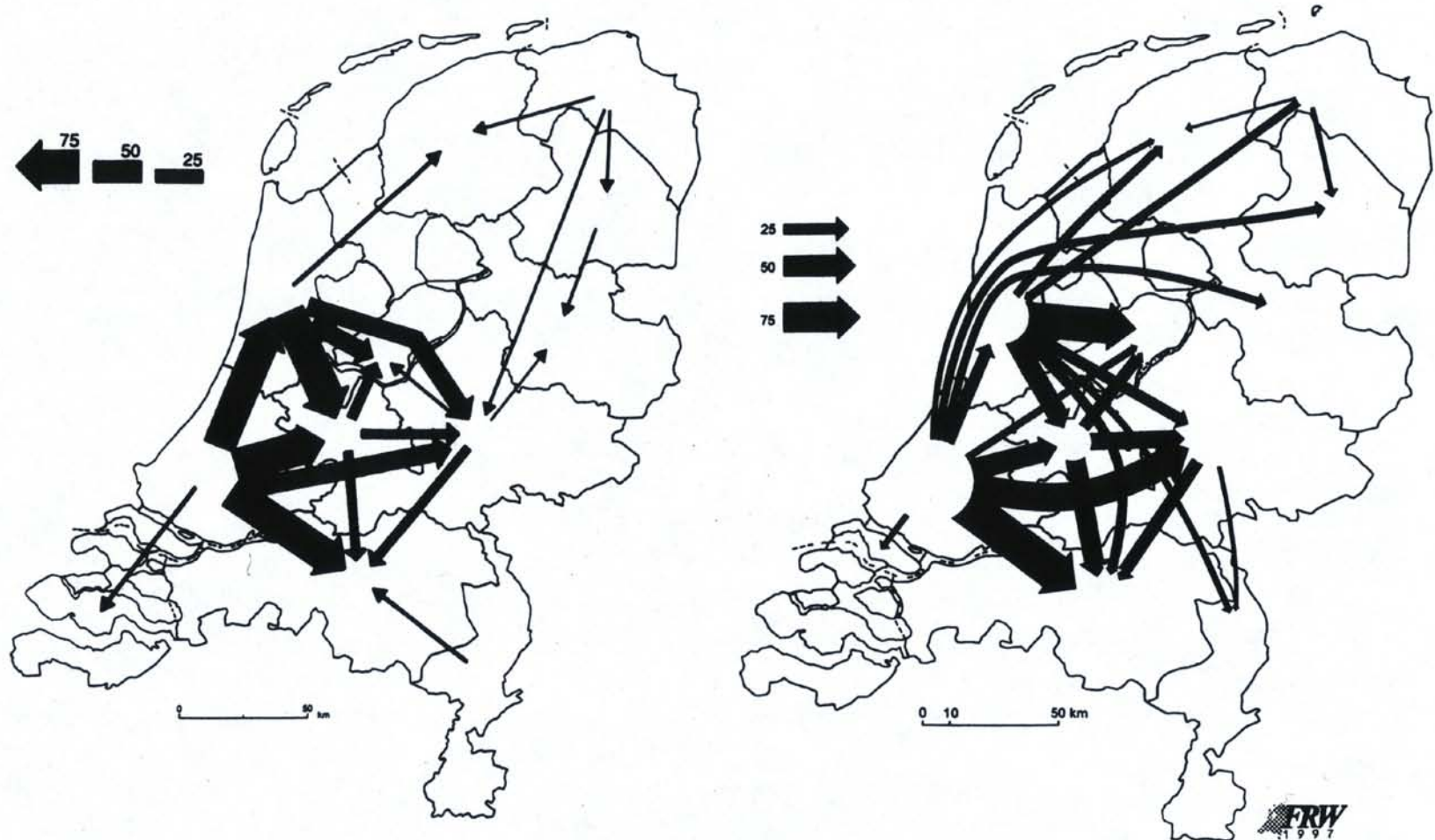


INTERPROVINCIAL FIRM MIGRATION

(balance of in- and outgoing migrations)

1990/1991

1994/1995



Source: Kemper and Pellenbarg 1993, 1997

ENTREPRENEURS IN :

FRIESLAND

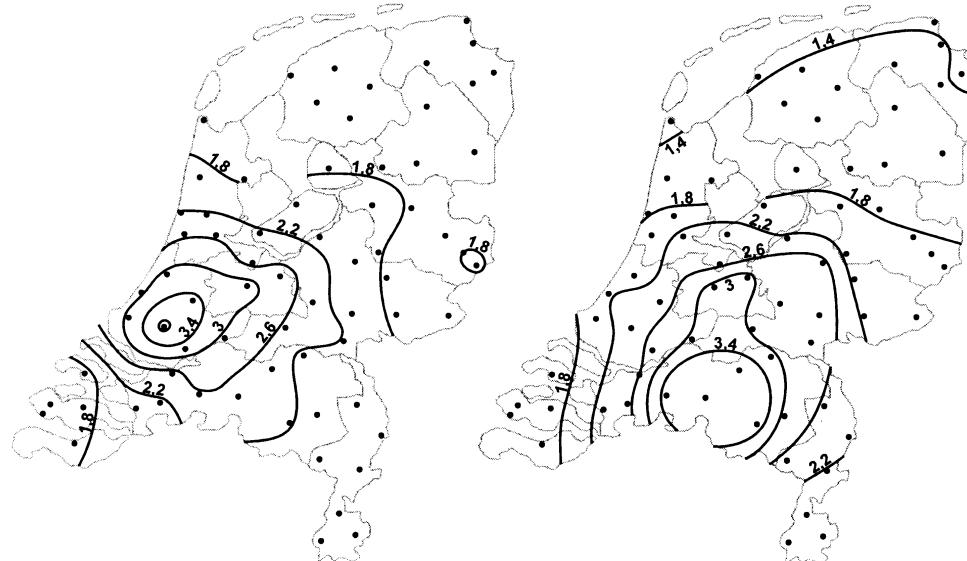
UTRECHT



ENTREPRENEURS IN :

Z-HOLLAND

N-BRABANT

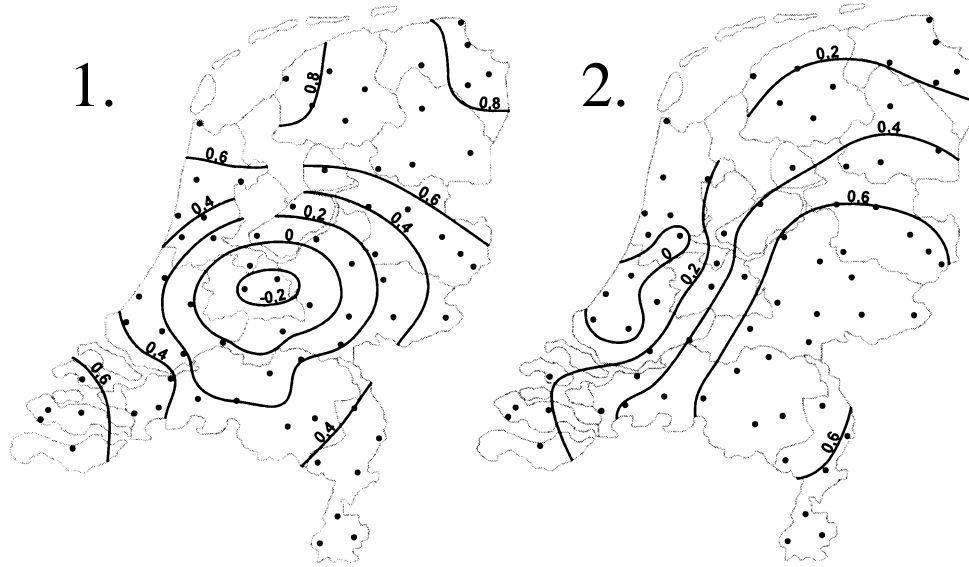


Bron:
Meester en Pellenbarg
Diverse publicaties

LOOKING FOR STRUCTURES IN THE DATASET

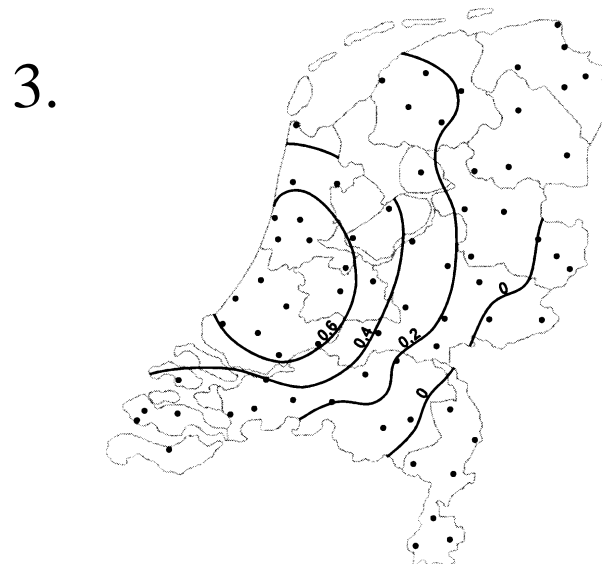
- TREND SURFACE ANALYSIS
- CORRELATION ANALYSIS
- CLUSTER ANALYSIS
- FACTOR ANALYSIS

FACTOR ANALYSIS ON THE VALUATION OF LOCATIONS (1983, 1993)



1. Market location
2. Living conditions

INTERPRETATION of FACTORS = HYPOTHESES for FUTURE RESEARCH

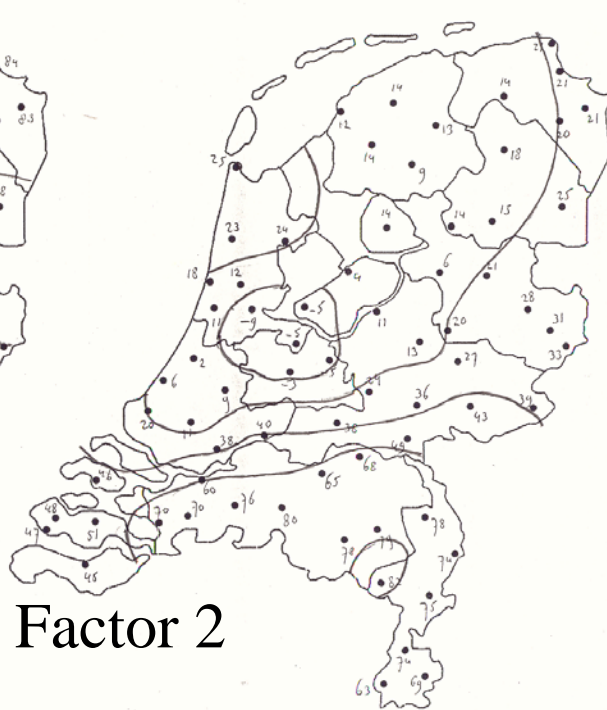


3. Agglomeration
(diseconomies)

Bron:
Meester en Pellenbarg
Diverse publicaties



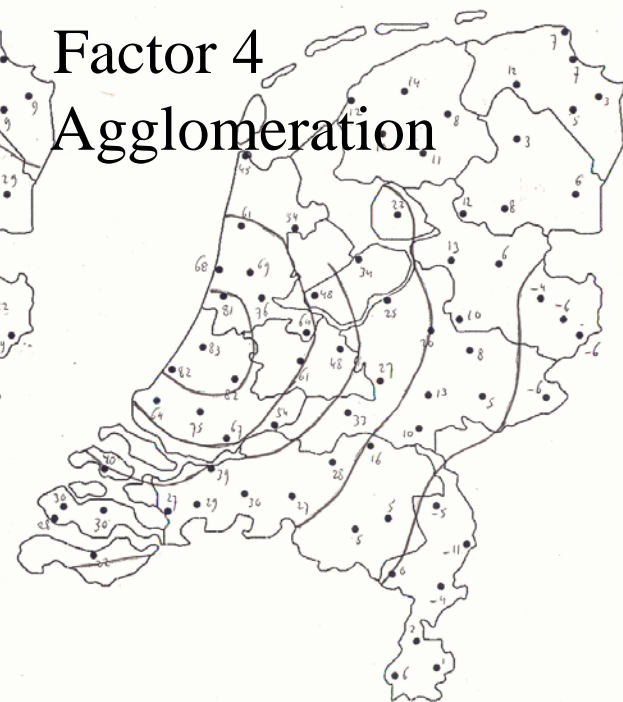
Factor 1
Market location



Factor 2



Factor 3



Factor 4
Agglomeration

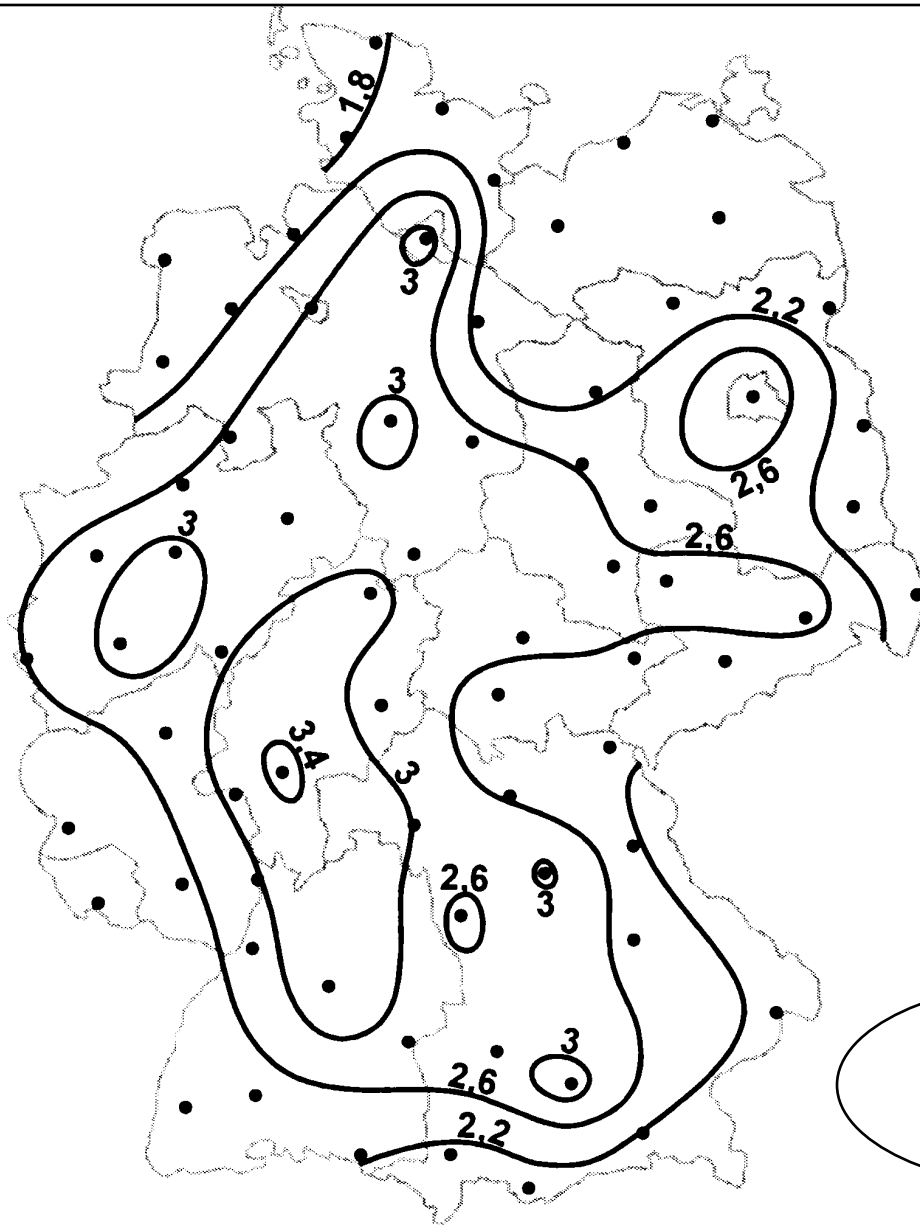
Factoranalysis
2003, with 4 factors
Factors 2 and 3
maybe represent
culture and
landscape

SURVEY OF LOCATION VALUATION IN GERMANY



Bron:
Meester 1999
Dissertatie

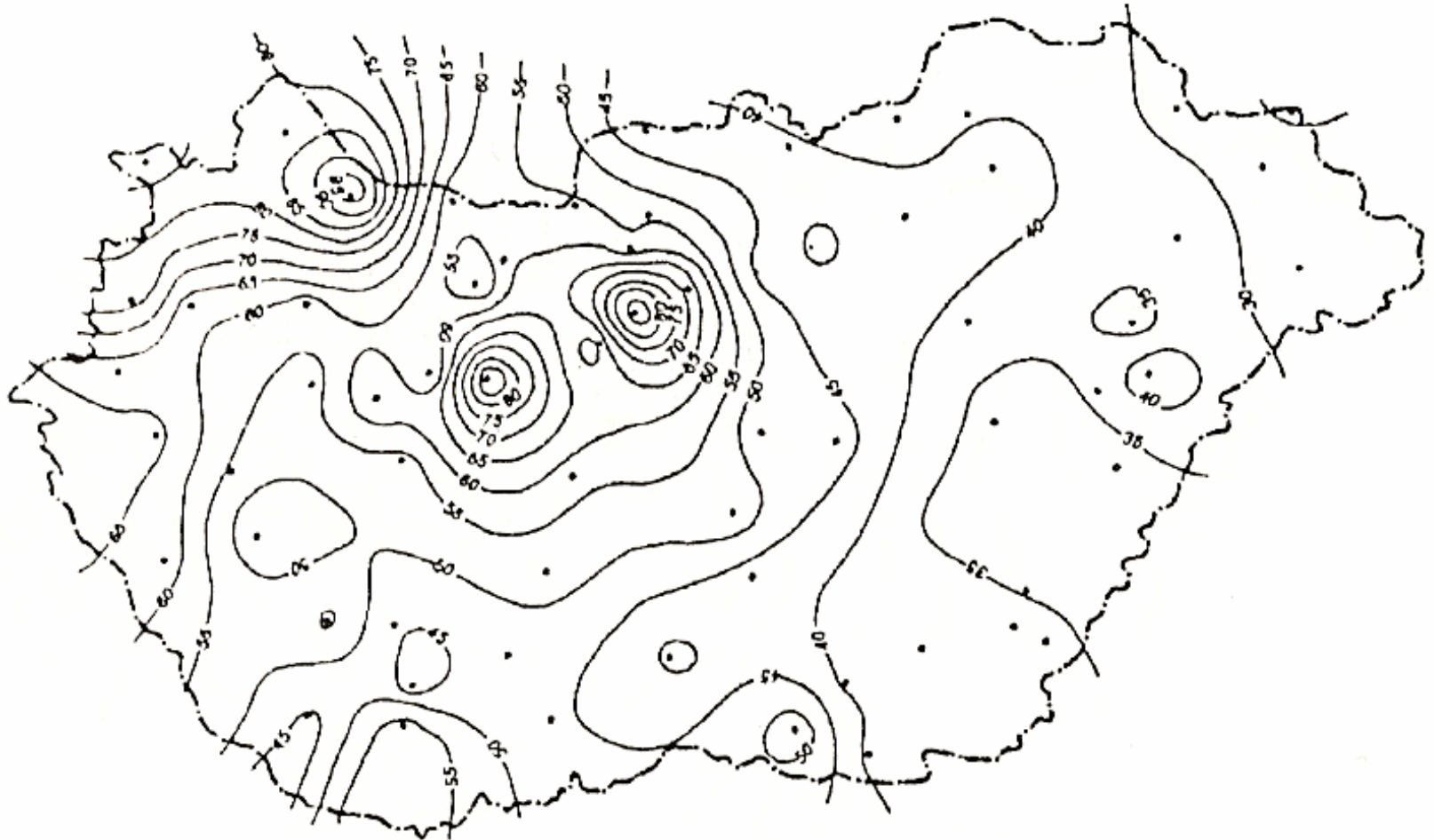
AVERAGE VALUATION OF LOCATIONS IN GERMANY, 1996



Bron:
Meester 1999
Dissertatie

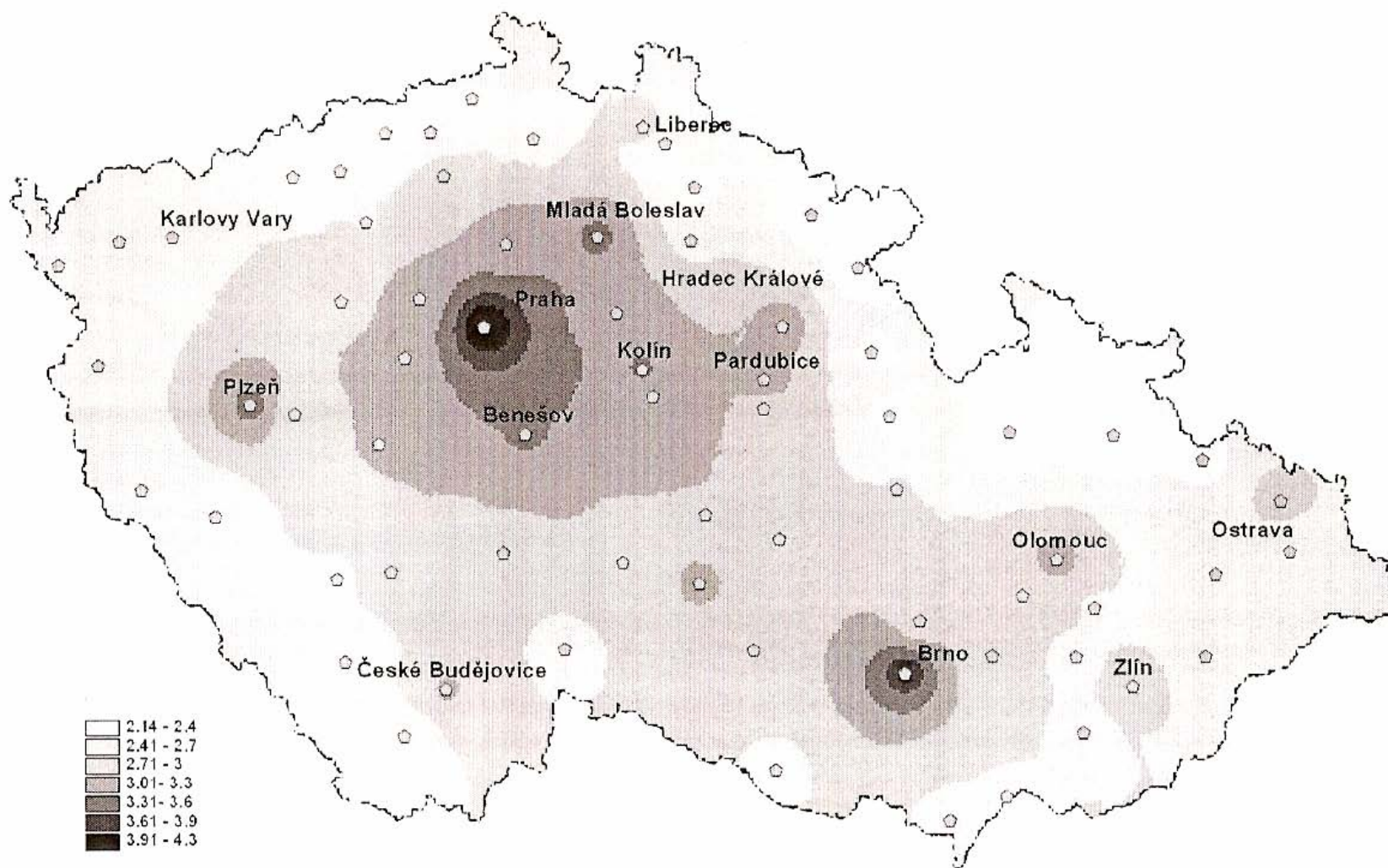
GEM. WAARDERING VAN VESTIGINGSPLAATSEN IN HONGARIJE, 1997/1998

AVERAGE VALUATION OF LOCATIONS IN HUNGARY, 1997/1998



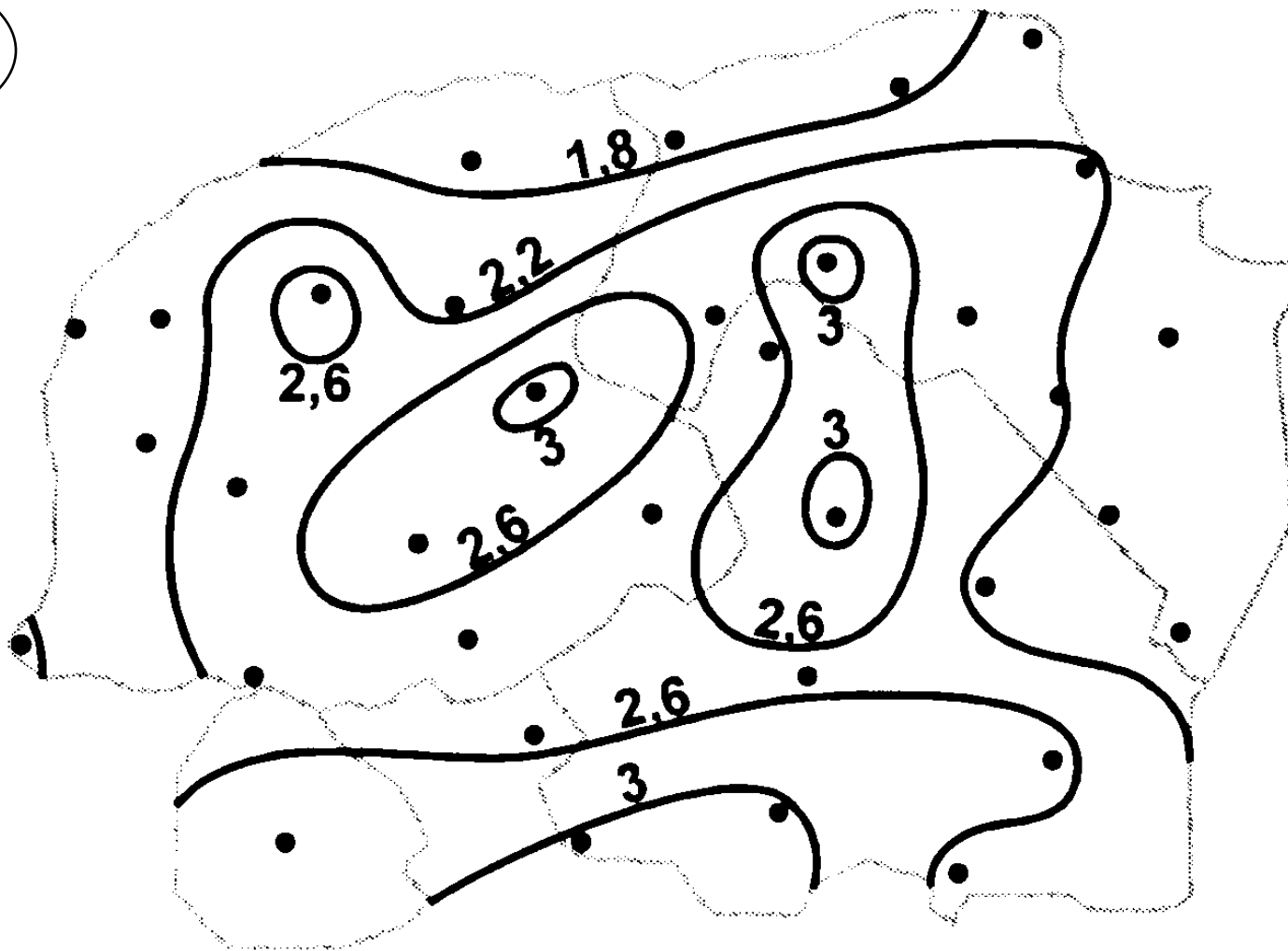
GEM. WAARDERING VAN VESTIGINGSPLAATSEN IN TSJECHIE, 2004

AVERAGE VALUATION OF LOCATIONS IN THE CZECH REPUBLIC, 2004

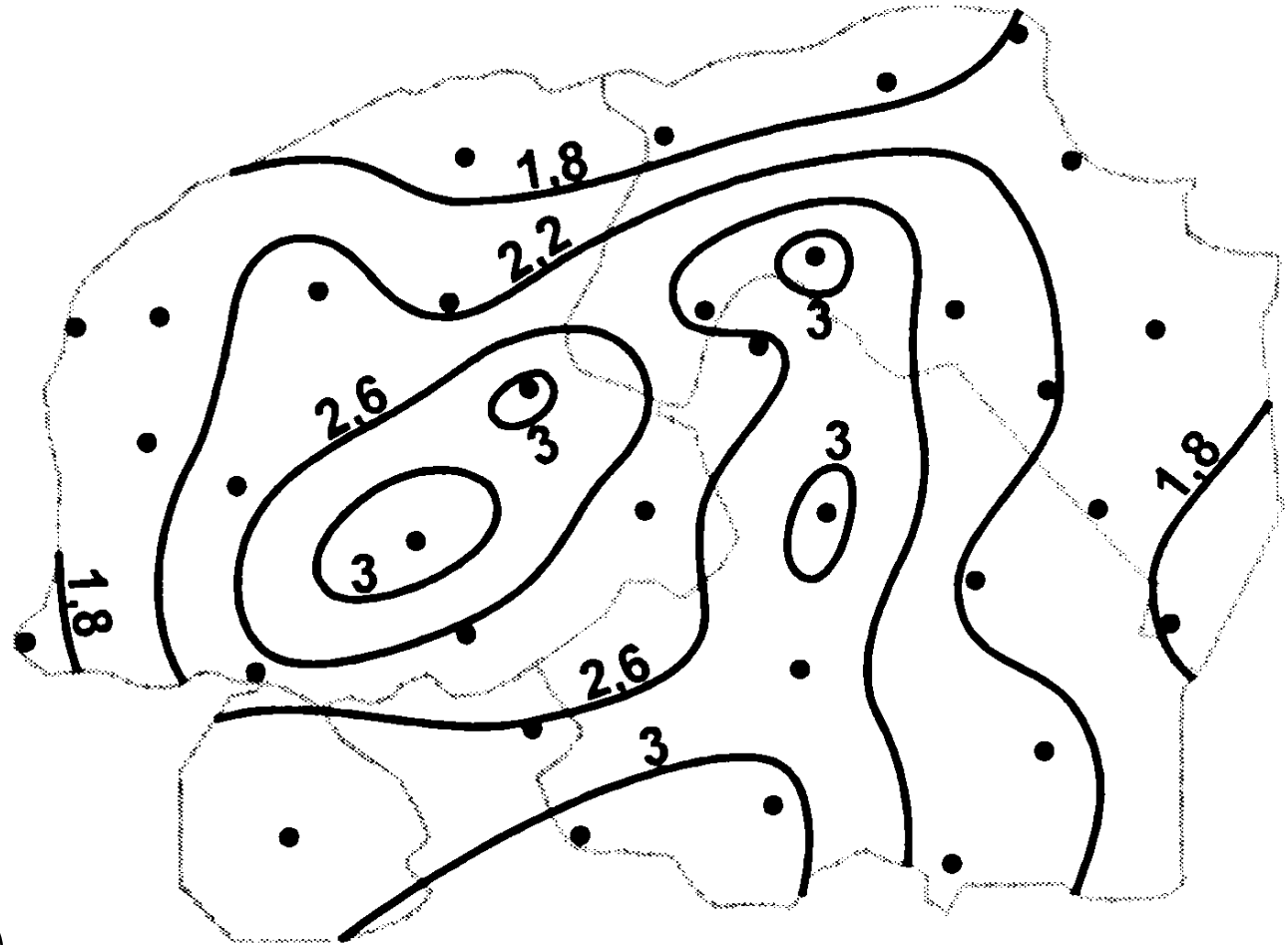


AVERAGE VALUATION OF LOCATIONS IN NORTH NETHERLANDS, 1986

Bron:
Meester en Pellenbarg
Diverse publicaties

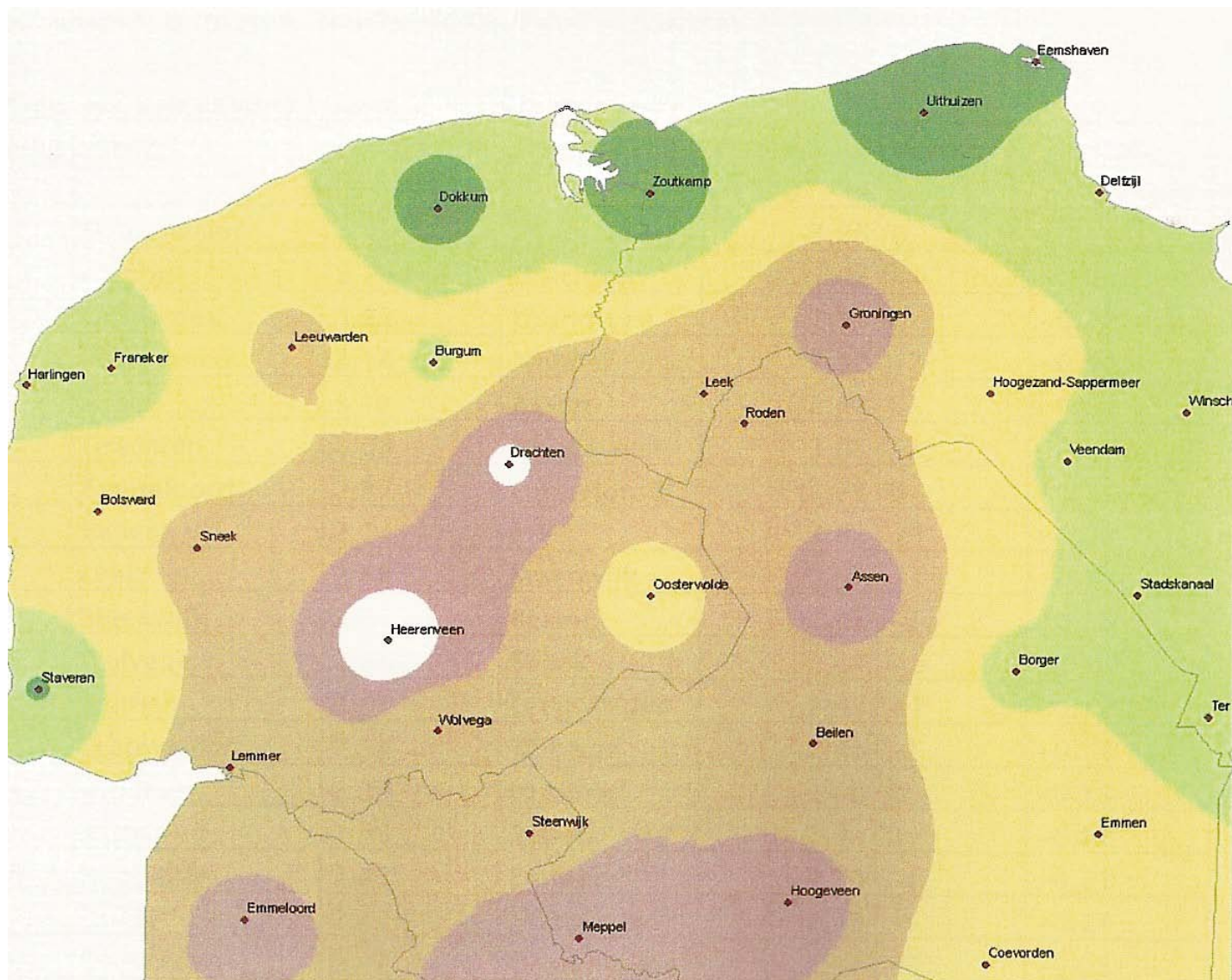


AVERAGE VALUATION OF LOCATIONS IN NORTH NETHERLANDS, 1997



Bron:
Meester en Pellenburg
Diverse publicaties

AVERAGE VALUATION OF LOCATIONS IN NORTH NETHERLANDS, 2007



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Firm demographic studies by the Faculty of Spatial Sciences, University of Groningen, the Netherlands

- A number of books
- Several special Issues of Journals
- Many journal articles
- Many invited lectures and presentations
- PhD theses, for instance about
 - new firms (spin offs)
 - old firms
 - firm migration (several)
 - firm demography on neighbourhood level
- Recent (2007) quality rating of this research program by the international evaluation committee for research: 4,5 (very good/excellent)

Firm migration as a part of the total firm mutation balance *(Netherlands as a whole)*

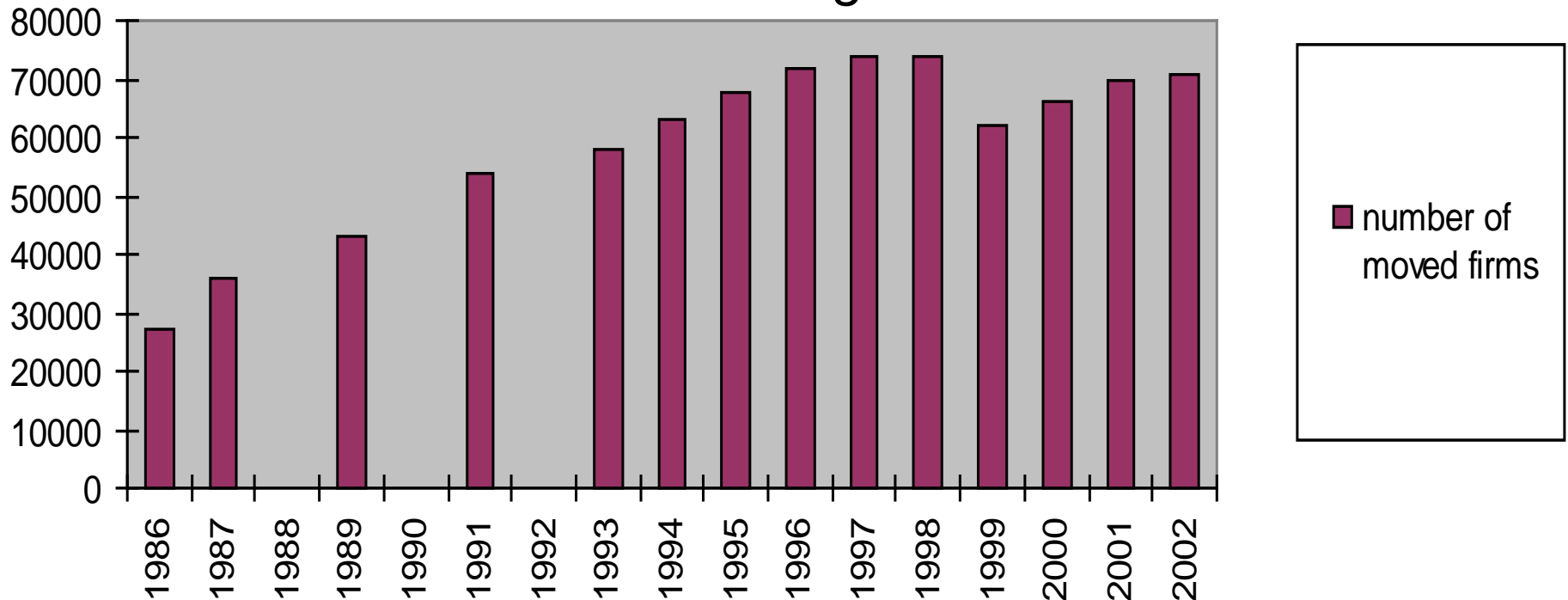
(average numbers over 2001/2003; Source: VVK 2003)

	Number of new firms	Number of firm closures	Result: natural growth	Number relocated firms	Of which over long distance
Establishments	91,300	55,000	36,300	64,300	12,900
Employees	125,500	120,800	4,700	231,000	48,100

FIRM MIGRATION 1987-2002

1986-1999 estimates too high resulting from insufficient screening of migration data
1999-2002 more realistic estimates

Source: Pellenbarg 2004 and VVK 2003



FIRM MIGRATIONS in 2001/2002

breakdown by sector

NUMBER OF FIRMS - NUMBER OF JOBS

<i>SECTOR</i>	<i>SHORT DISTANCE</i>	<i>LONG DISTANCE</i>	<i>TOTAL</i>	<i>SHORT DISTANCE</i>	<i>LONG DISTANCE</i>	<i>TOTAL</i>
AGRICULT	1000	200	1200	2900	500	3400
MAN.INDUST	3300	800	4100	21100	5600	26700
BUILDING	6200	900	7100	25900	4700	30600
WHOLSESAL	6700	2100	8800	22100	8000	30100
RETAIL	5600	900	6500	14700	2000	16700
HOTELS ETC	1100	200	1300	2800	700	3500
TRANSPORT	2900	700	3600	17200	3500	20700
FINANC.SERV	1800	500	2300	7500	1700	9200
ADVICY SERV	8500	2800	11300	22400	8200	30600
FACIL SERV	7500	2200	9700	29400	9700	39100
PERSONAL S.	5100	1100	6200	9300	2100	11400
GENERAL S.	1700	500	2200	7600	1400	9000
SUBTOTAL	51400	12900	64300	182900	48100	231000
HOLDINGS	4800	1400	6200			
TOTAL	56200	14300	70500			

Bron: Pellenbarg 2004

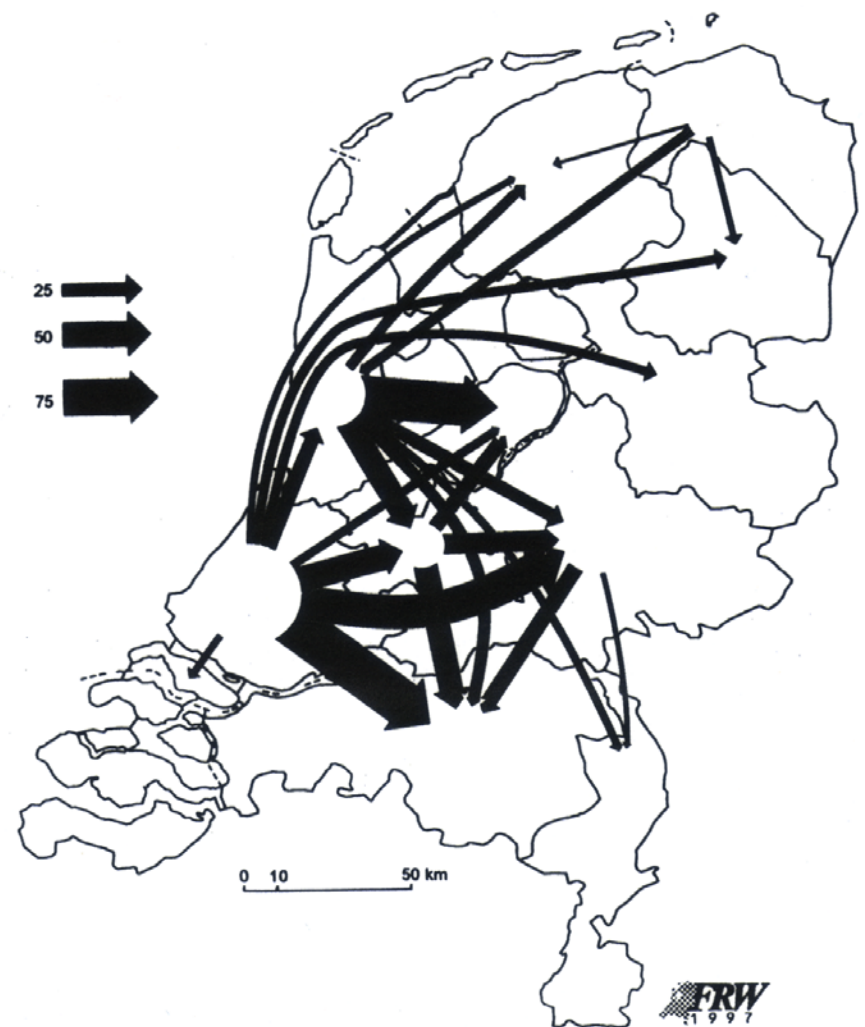
c.q. VVK 2003

The spatial pattern:

Interprovincial firm migration (balance)

1990/91

1994/95

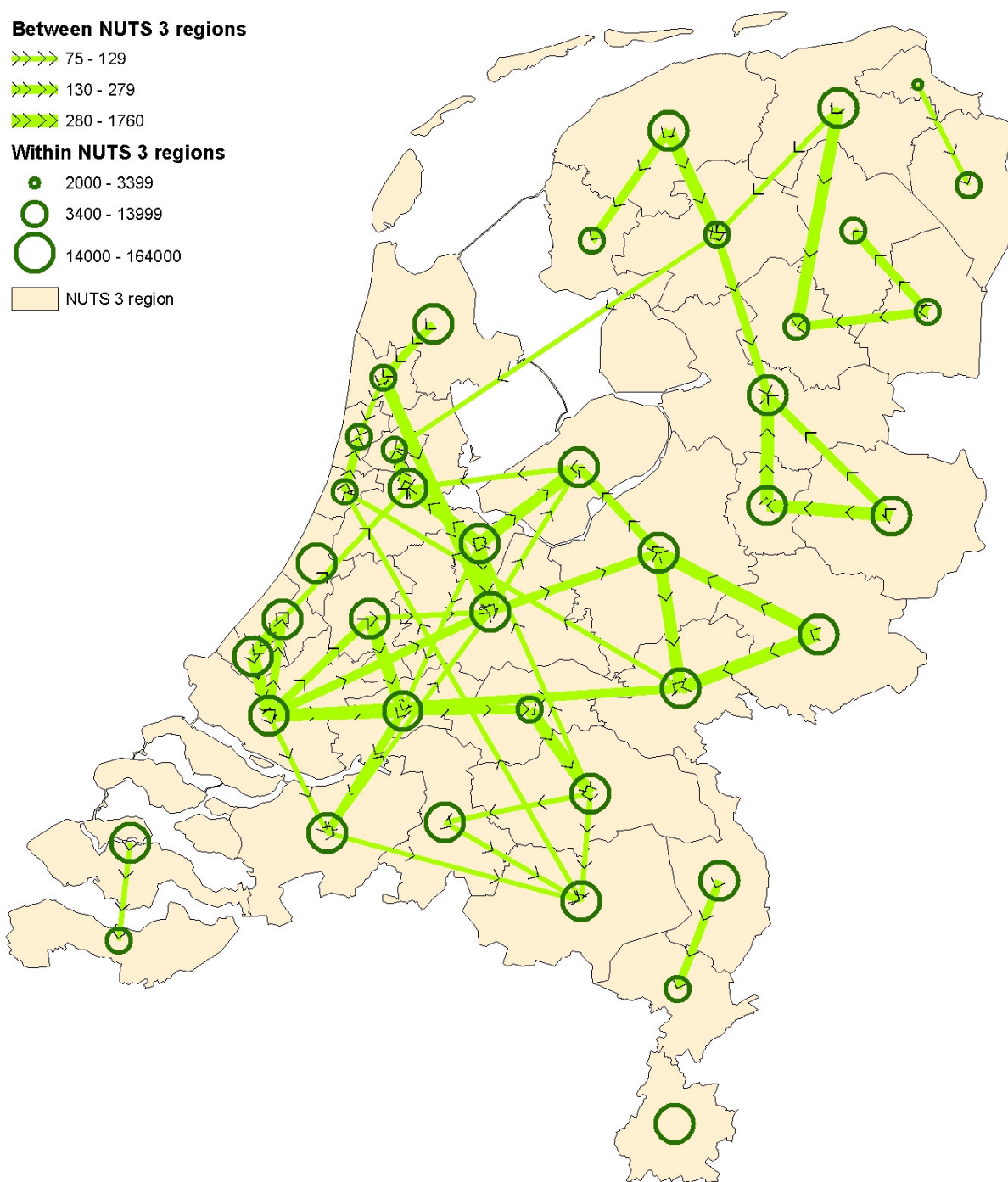


Between NUTS 3 regions

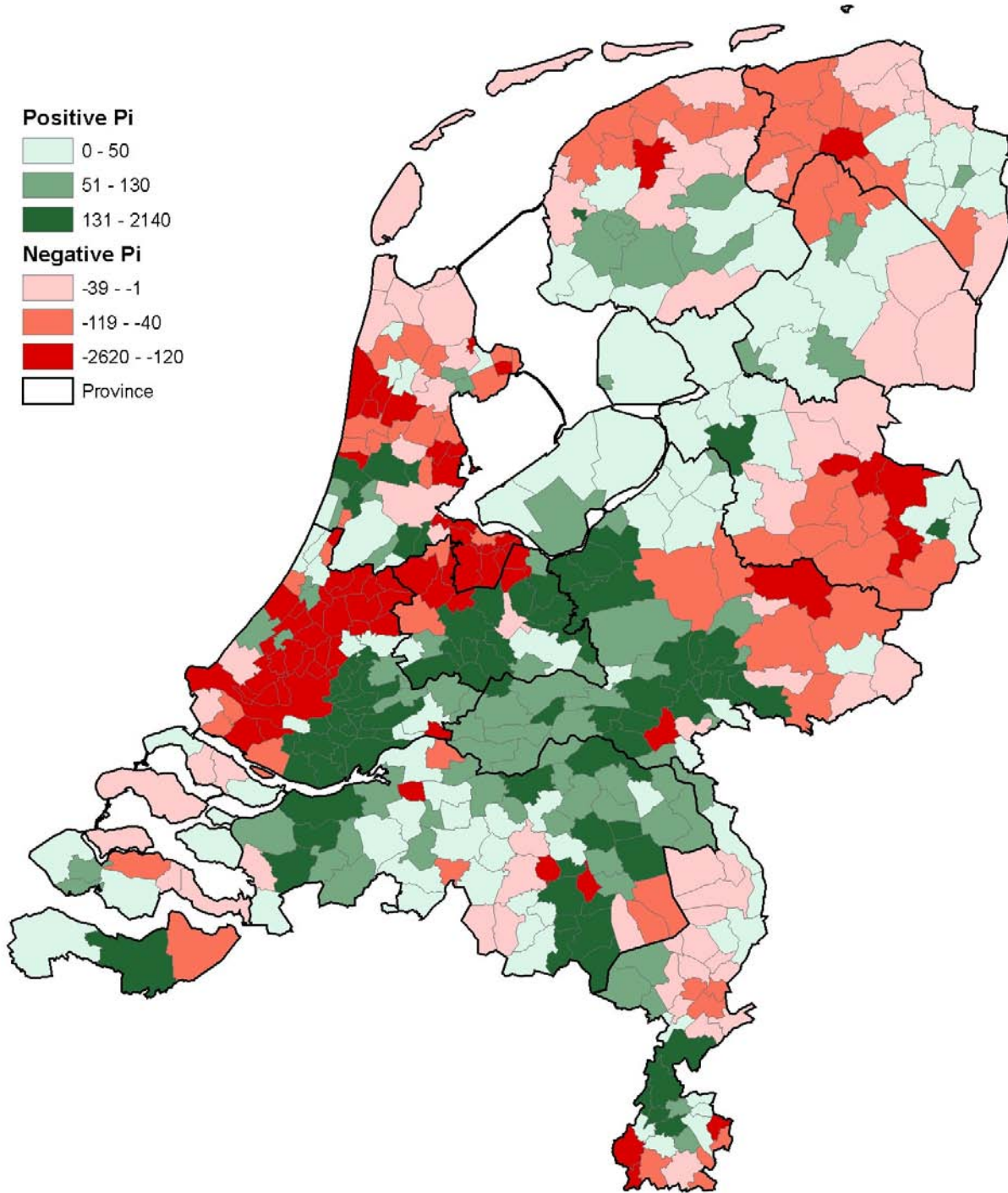
- 75 - 129
- 130 - 279
- 280 - 1760

Within NUTS 3 regions

- 2000 - 3399
- 3400 - 13999
- 14000 - 164000
- NUTS 3 region



Interregional
firm migration
1999-2006
(Numbers of firms)



Interregional firm migration 1999-2006

(Employment gain or
loss)

Studies in to migration motives

A comparison in time: 1977-1988-1999
the top-5 **PUSH** factors

1977

1988

1999

Expansion space

Expansion space

Expansion space

Organisation asp

Organisation asp

Unrepr.building

Bad premises

Local traffic situ

Bad premises

Lease expires

Future exp. pos.

Organisation asp

Unrepr.building

Bad premises

Accessibility

Studies in to migration motives

A comparison in time: 1977-1988-1999
the top-5 **PULL** factors

1977

1988

1999

Expansion poss. (market)location **Represent.build**

Organisation asp **Expansion poss.** Prox.client/suppl

Premises avail. Local traffic situ **Expansion poss.**

(market)location Price land/prem. (market)location

Local traffic situ **Represent.build** Premises avail.

.

Plans for future research

- International comparative studies of firm migration
- Studies into the staging of the migration decision making process
- Studies into the relationship between firm relocation and locational satisfaction



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Thank you for your attendance!

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