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Regional Science Research in Europe: a review

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39TH REGIONAL SCIENCE ASSOCIATION EUROPEAN CONGRESS

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REGIONAL SCIENCE IN EUROPE: A REVIEW

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Abstract

Although it is generally acknowledged that Regional Science was born forty years ago in the United States, pioneer efforts to introduce space in economic theory were developed in Europe, much earlier. Moreover, some fields in regional science, such as regional policy and related subjects, are mainly the result of research agendas put forward by European regional scientists. In addition to that, the 90s mark a hypothetical loss of hegemony of USA in Regional Science. The closure of important regional science departments and an observable lack of interest of policy makers in the contribution of regional scientists put our class under stress. Comparing the trajectory of research in USA with Europe, several authors conclude that regional science literature in USA need to become more policy-oriented. According to these views it seems that regional science in Europe has distinctive features when compared with regional science in USA. Is there a European Regional Science? In this paper we intend to present empirical evidence on this issue. We constructed a data set with articles published in seven leading journals during the 1990-98 period, in order to determine if there is such a different orientation of research among European and North-American authors.

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1. Introduction

It is generally accepted that studies considering space in their analysis were first published in Europe. Although European contributions can be traced back to the seventeenth¹ and eighteenth² centuries, the majority of authors tend to consider the work by Von Thunen³ (1826) as the first study to account for space. The importance of Von Thunen's study "The Isolated State" was recently stressed by Samuelson (1983) which not only considers that author as having produced pioneer contributions in the field of spatial economics but also in core areas of economics. The dominance of German contributions for regional science in the nineteenth century and in the first half of the twenty-century has been considered a puzzle by researchers in the field of History of Economic Thought. Mark Blaug (1979) explains this puzzle with the linguistic barrier. According to his view German contributions did not spread enough to other foreign scholars, and that is why almost all major contributions, prior to the fifties, such as Launhardt⁴ (1882, 1885), Alfred Weber⁵ (1909), Christaller⁶ (1933) and Losch⁷ (1940), remain of German origin⁸.

If the early German hegemony in location theory constitutes a puzzle, the ignorance of space by mainstream economics is another one. The need to keep methodology of economics simple and the belief that the property of insightfulness of the models would allow one to extend derived conclusions to consider space, are two major reasons for economists to have developed models that did not account for space. In fact, space was left aside and attention was paid to time, asymmetry of information, uncertainty, etc.

If we detect, till the end of the second half of the twenty century, a significant role of European literature in the field of regional science, the second half of this century is dominated by North-American contributions⁹. The research became more diversified and new areas of research emerged. Regional Science as we know it today, emerged in the middle 50s¹⁰ thanks to pioneer works of authors such as W. Isard (1954¹¹, 1956¹²). At the same time, there are also important European contributions such as Perroux¹³ (1950) and C. Ponsard¹⁴ (1955).

The 90s mark a hypothetical loss of hegemony of USA in Regional Science. At the same time there seems to occur a generalised crisis in the field of regional studies. The closure of important regional science departments¹⁵ and an observable lack of interest of policy makers in the contribution of regional scientists put our class under stress. Many papers addressed this issue¹⁶ calling for a need for convergence between regional science contributions in Europe and in North America. The research in Europe would need to become more fundamental whereas literature in the USA would need to become more policy-oriented. The idea that most of the fundamental literature is produced in the USA has to be interpreted carefully. As a matter of fact, important theoretical developments have been produced in Europe. As an example, we can cite Solow (1994) that explicitly recognises the promising research done in Europe with a special reference to the works on the "milieux innovateurs". Moreover, an increasing number of North-American authors are more and more interested in the research in course in Europe¹⁷.

Therefore the question arises: is there a European Regional Science with distinctive aspects or is the situation a result of a higher concern with real convergence and a less liberal policy orientation in the European Union? In this paper we intend to present empirical evidence on this issue. For this purpose we analysed articles published in seven leading journals during the 1990-98 period in order to determine if there is such a different orientation of research among European and North-American authors. The analyses considers 1670 articles, which in our view constitutes a good basis to determine if there is, as a matter of fact, a distinctive European approach to Regional Science.

2. Methodology and data

The construction of any listing of mainstream journals in regional studies is not an easy task, since the list of publications that can be related to this field of knowledge comprises currently about fifty journals¹⁸. We have chosen to focus mainly on regional economics, thus leaving aside journals, that have urban economics, geography or planning as their primary subject. To further restrict our sample we selected regional

studies journals by their citation impact. For this purpose we used journals listings published in Taylor and Johnes (1992). Since we want to access the contribution of European and American researchers to Regional Science we have selected European journals¹⁹ and North-American²⁰ journals (Table 1). For the purpose of the paper, journals were allocated to a particular geographical space by the affiliation of the editing institution or organisation.

As in other scientific fields, the use of English as the most frequent language represents a serious bias against non-English speaking European countries. In order to limit that bias we considered also, among the European journals, the *Revue d'Economie Régionale et Urbaine (RERU)*. RERU is the flagship of the Association de Science Régionale de Langue Française²¹. Although the ASRLF is based in France, contrary to the other European regional science associations, it is not country specific. In fact, the ASRLF aggregates French speaking researchers²², mainly from Europe, Canada and North Africa.

Excepting for EUR, every selected journal started its publication before 1980. We intend to analyse the 1980-1998 period too, but for the moment this papers reports only on results from the 1990-98 period. We have analysed only full papers. Contributions published as Notes, Communications, Comments or shorter contributions in special sections²³ were not considered. In compiling the data we could not use electronic lists, because journals employ different conventions and some of the data we needed was missing. So we had to manually construct a database²⁴ from the direct inspection of each paper.

For each of the papers we have compiled the following information: Title, Journal of publication, Date of publication, Name of the author(s), National affiliation of the author(s), Key words, when provided. Where there was multiple authors, their respective names and affiliation were also introduced in the database, up to three co-authors. For papers with more than three authors we considered only the first three authors, as reported in the paper's title. National affiliation of the author relates to the country in which the author's institution, as indicated in the published paper²⁵, is located.

Regional Science in Europe: a Review

As unit of measurement we have chosen the number of papers instead of the number of pages per article. Most bibliometric studies use page counts, in page equivalent units. These are calculated adjusting for characters per page and quality. But, as we are not mainly interested in ranking institutions but in evaluating similarities and differences between European and North-American research in regional economics, the number of papers, although introducing a bias in favour of contributors of shorter papers, has the advantage of simplicity. So, in the following tables each paper was assigned a value of unity.

Table 1
Summary of information concerning selected reviews

Journal		1 ST year of publication	Numbers per year	Vol N° in 12/1998	Editor		
					Editor	Institution	Country
EUROPEAN JOURNALS	RERU	1978	1978/82: 4	21	Paris, Economica	IERS-ADICUEER	France
			1983/98: 5				
	RS	1967	1967/68:2	32	Carfax Pub. Co.	-	United Kingdom
			1969:3				
			1970/76:4				
			1977/91:6				
			1991/98:8				
	ARS	1967	1990/98:4	32	Springer Verlag	-	Germany
	EURS	1994	1994:2	5	Longman	-	United Kingdom
			1995/98:4				
NORTH AMERICAN JOURNALS	JRS	1961	1970/??:3	38	Blackwell	-	USA
			19??/98:4				
	IRSR	1975	1975/89: 2	21	Regional Research Institute	West Virginia University	USA
			1990/98:3				
	PRS	1955	1955/61:1	77	University of Illinois	RSAI	USA
			1962/80:2				
			1981/90 odd yrs:3; even yrs:2				
			1991/98: 4				

Source: Benko, G. op. cit. and author's own database

In order to classify the papers in sub-areas we defined 27 research areas. To do this we combined existing classifications, namely those provided by the Regional Science Association International and by the Journal of Economic Literature, but we had to complete theme classification by direct inspection of the data set. The adopted classification (Table 2) turned out to work well since only 73 out of 1670 papers were classified in the residual category (27 – Other themes).

Table 2
Classification of Regional Science Themes

Themes	Subjects
1	Location
2	Land-use; real estate markets; space representation.
3	Housing
4	Metropolitan areas; urbanisation; planning organisms; urban policies.
5	Size; spatial distribution of economic activity; urban systems; central places; accessibility.
6	Production and pricing analysis.
7	Infrastructures; public construction.
8	Transportation; travel.
9	Population; migrations and mobility.
10	Employment; labour; labour markets; human resources.
11	Growth models; convergence/divergence; regional disparities.
12	Innovation; new technologies; networks; industrial districts; entrepreneurship; production systems; flexible production
13	Producer services; services.
14	Globalisation; international trade; multinational firms; foreign direct investment; urban and regional competitiveness.
15	European union; European integration; cross-border development.
16	Regional development policies; public policies; cost-benefit analysis; evaluation of regional development policies.
17	Local development; rural areas.
18	Regional and local finance; public economics; public choice; institutions.
19	Industry.
20	Agriculture.
21	Recreation; leisure; tourism.
22	Econometrics; spatial statistics; input-output; quantitative methods.
23	Environment; natural resources; residential quality.
24	General spatial economics; welfare; spatial interaction; spatial markets; regional models.
25	Regional science methodology
26	Geographical systems.
27	Other themes.

3. Empirical results

In Table 3 we present some descriptive statistics on the selected regional science journals. The total number of articles included in the data set is 1670, corresponding to 265 journal numbers. European journals published 63,2% of the papers included in our database. The average number of papers per journal number is similar for European and North American journals.

Table 3
Total Numbers and Papers in each journal, 1990-1998

Journals		Numbers published		Papers Published		Papers per Number
		Total	Percentage	Total	Percentage	
European	ARS	36	13,6	212	12,7	5,9
	EURS	18	6,8	74	4,4	4,1
	RERU	45	17,0	361	21,6	8,0
	RS	69	26,0	409	24,5	5,9
	Total	168	63,4	1056	63,2	6,3
North American	IRSR	27	10,2	143	8,6	5,3
	JRS	36	13,6	268	16,0	7,4
	PRS	34	12,8	203	12,2	6,0
	Total	97	36,6	614	36,8	6,3
Total		265	100,0	1670	100,0	6,3

Source: Author's own calculations

Analysing the orientation of journals by themes, we detect major differences among Europe and North America edited journals (Table 4). European journals have a clear orientation for research areas such as innovation, new technologies, networks, industrial districts, entrepreneurship, production systems and flexible production. North American journals pay special attention to research areas such as spatial statistics, quantitative methods, spatial markets, general spatial economics, growth models, and regional disparities. It is interesting to observe that there is a clear asymmetry between these journals in what concerns the above-referred themes.

A different approach is to determine the distribution of papers on each theme by European and North American journals. We have to take into account that in our data set European edited journals account for 63,2% of total number of papers published. Therefore, in order to conclude for a clear pattern of concentration of European journals in particular themes, we need to observe percentages over 63,2%.

As we can observe in the two last columns of Table 4, European journals published a very large proportion of papers in the above-referred areas, but also in areas such as producer services, globalisation, urban and regional competitiveness, European Union, cross-border development. On the other hand, some areas are clearly sub-represented in European journals as, for instance, city size, spatial distribution of economic activity, urban systems, central places, accessibility, regional science methodology, spatial statistics, location theory, land-use and real estate markets. Computing the standard deviation of theme percentages, it is no surprise to verify that the standard deviation is smaller for the overall sample (2,484) than for each sub-sample (3,178 for European Journals and 3,548 for North American journals).

Table 4
Distribution of papers by theme, in European and American Journals 1990-1998

Theme	European Journals		North American Journals		Total		Theme distribution by Journal origin	
	Total	Percentage	Total	Percentage	Total	Percentage	Europe	N.America
1	24	2,3	42	6,8	66	4,0	36,4	63,6
2	17	1,6	28	4,6	45	2,7	37,8	62,2
3	17	1,6	9	1,5	26	1,6	65,4	34,6
4	43	4,1	19	3,1	62	3,7	69,4	30,6
5	9	0,9	25	4,1	34	2,0	26,5	73,5
6	0	0,0	0	0,0	0	0,0	0,0	0,0
7	7	0,7	3	0,5	10	0,6	70,0	30,0
8	47	4,5	18	2,9	65	3,9	72,3	27,7
9	33	3,1	48	7,8	81	4,9	40,7	59,3
10	79	7,5	27	4,4	106	6,3	74,5	25,5
11	49	4,6	55	9,0	104	6,2	47,1	52,9
12	167	15,8	11	1,8	178	10,7	93,8	6,2
13	32	3,0	9	1,5	41	2,5	78,0	22,0
14	69	6,5	12	2,0	81	4,9	85,2	14,8
15	43	4,1	8	1,3	51	3,1	84,3	15,7
16	53	5,0	20	3,3	73	4,4	72,6	27,4
17	51	4,8	18	2,9	69	4,1	73,9	26,1
18	66	6,3	10	1,6	76	4,6	86,8	13,2
19	20	1,9	2	0,3	22	1,3	90,9	9,1

Regional Science in Europe: a Review

20	1	0,1	0	0,0	1	0,1	100,0	0,0
21	15	1,4	1	0,2	16	1,0	93,8	6,3
22	33	3,1	74	12,1	107	6,4	30,8	69,2
23	57	5,4	16	2,6	73	4,4	78,1	21,9
24	52	4,9	76	12,4	128	7,7	40,6	59,4
25	20	1,9	53	8,6	73	4,4	27,4	72,6
26	6	0,6	3	0,5	9	0,5	66,7	33,3
27	46	4,4	27	4,4	73	4,4	63,0	37,0
Total	1056	100,0	614	100,0	1670	100,0	63,2	36,8

Source: Authors' own database

Table 5 allows us to detect major differences concerning the relative access authors working in different countries have to the selected regional science journals. Language seems to matter since French speaking authors tend to publish massively in the RERU. Proximity, both in terms of nationality and interests of research, is also a relevant factor: French authors dominate the Revue d'Economie Régionale et Urbaine (RERU) whereas Regional Studies (RS) and European Urban and Regional Studies (EURS) exhibit a clear dominance of authors from the United Kingdom and journals edited in the United States of America, especially the International Regional Science and the Journal of Regional Science, have a significant participation of North-American authors. Aggregating the papers in three categories (European, North-American and Others) we realise that papers with a first author working in Europe represent 56,9% of total papers published in the period 1990-98 in the selected regional science journals. This fact confirms that regional science research in Europe is still strong, compared with other fields in Economics.

Table 5
Published papers by country of first author

ARS	EURS	IRSR	JRS	PRS	RERU	RS
USA (36,3%)	UK (54,1%)	USA (73,4%)	USA (67,5%)	USA (43,3%)	France (76,2%)	UK (62,3%)
Germany (9,4%)	Germany (6,8%)	Canada (4,2%)	UK (7,5%)	UK (11,8%)	Canada (3,3%)	USA (14,7%)
UK (7,1%)	Sweden (5,4%)	Netherlands (3,5%)	Canada (5,6%)	Japan (7,9%)	Belgium (3,0%)	Canada (3,7%)
Japan (6,6%)	France (4,1%)	UK (3,5%)	Japan (3,7%)	Netherlands (5,4%)	Switzerland (2,8%)	Netherlands (3,4%)
Netherlands (8,0%)	Greece (4,1%)	Ukrania (2,8%)	Germany (1,5%)	Canada (4,4%)	Spain (2,2%)	Germany (2,4%)
Sweden (5,7%)	Denmark (4,1%)	Russia (2,1%)	France (1,1%)	Spain (3,4%)	Portugal (2,2%)	Italy (1,7%)

Regional Science in Europe: a Review

Australia (5,2%)	Others (17,6%)	Others (10,5%)	Belgium (1,1%)	Austria (2,5%)	UK (2,2%)	Australia (1,2%)
Canada (3,3%)			Others (12,0%)	Australia (2,5%)	Netherlands (1,7%)	Israel (1,2%)
Israel (3,3%)				Germany (2,5%)	Italy (1,4%)	Spain (1,2%)
Others (15,1%)				Sweden (2,5%)	Others (5,0%)	Sweden (1,2%)
				Others (13,8%)		Others (7,0%)
Total:100%	Total:100%	Total: 100%	Total: 100%	Total:100%	Total:100%	Total: 100%

Source: Authors' own database

Comparing the frequency of publication of papers by theme we find patterns for research published by European and North-American authors (Table 6). European authors tend to do more research in the following topics:

- Innovation; new technologies; networks; industrial districts; entrepreneurship;
- Employment; labour; labour markets; human resources;
- Globalisation; international trade; multinational firms, foreign direct investment; urban and regional competitiveness.

Table 6
Papers by themes according to affiliation of first author, 1990-98

Themes	North America	Others	Europe	% North America	%Others	%Europe
1	31	7	28	5,3%	5,3%	2,9%
2	15	8	22	2,6%	6,1%	2,3%
3	7	2	17	1,2%	1,5%	1,8%
4	17	3	42	2,9%	2,3%	4,4%
5	15	3	16	2,6%	2,3%	1,7%
6	0	0	0	0,0%	0,0%	0,0%
7	5	0	5	0,9%	0,0%	0,5%
8	12	13	40	2,1%	9,8%	4,2%
9	54	9	18	9,2%	6,8%	1,9%
10	23	5	78	3,9%	3,8%	8,2%
11	51	8	45	8,7%	6,1%	4,7%
12	41	8	129	7,0%	6,1%	13,6%
13	11	2	28	1,9%	1,5%	2,9%
14	21	3	57	3,6%	2,3%	6,0%
15	1	0	50	0,2%	0,0%	5,3%
16	20	4	49	3,4%	3,0%	5,1%
17	18	3	48	3,1%	2,3%	5,0%
18	17	4	55	2,9%	3,0%	5,8%
19	7	3	12	1,2%	2,3%	1,3%
20	0	0	1	0,0%	0,0%	0,1%
21	1	2	13	0,2%	1,5%	1,4%

Regional Science in Europe: a Review

22	59	7	39	10,1%	5,3%	4,1%
23	23	4	46	3,9%	3,0%	4,8%
24	63	23	42	10,8%	17,4%	4,4%
25	50	2	21	8,6%	1,5%	2,2%
26	3	0	6	0,5%	0,0%	0,6%
27	19	9	45	3,3%	6,8%	4,7%
Total	584	132	952	100%	100%	100%

Note: For 2 papers we do not know the country of first author.

Source: Authors' own database

As for North American authors, they tend to concentrate their research on the following themes:

- General spatial economics; welfare; spatial interaction; spatial markets;
- Econometrics; spatial statistics, input-output; other quantitative methods;
- Population; migration; mobility;
- Regional growth models; convergence/divergence; regional disparities;
- Methodology of regional science.

North-American research is more abstract and closer to research in other core areas of economics, namely industrial organisation and microeconomics. European research is more policy oriented and less abstract. There is a close relationship between theme orientation by place of edition of journals and place of work of authors.

Table 7
Relative importance of Southern European literature by themes, 1990-98

Themes	Southern Europe (number of papers)	Other European Countries (number of papers)	Southern Europe (% of papers)	Other European Countries (% of papers)
1	13	15	3,7	2,5
2	11	11	3,1	1,8
3	6	11	1,7	1,8
4	24	18	6,8	3,0
5	3	13	0,8	2,2
6	0	0	0,0	0,0
7	2	3	0,6	0,5
8	13	27	3,7	4,5
9	3	15	0,8	2,5
10	19	59	5,4	9,8
11	22	23	6,2	3,8
12	59	70	16,7	11,7
13	6	22	1,7	3,7
14	24	33	6,8	5,5
15	18	32	5,1	5,3
16	15	34	4,2	5,7

17	26	22	7,4	3,7
18	25	30	7,1	5,0
19	2	10	0,6	1,7
20	0	1	0,0	0,2
21	5	8	1,4	1,3
22	7	32	2,0	5,3
23	22	24	6,2	4,0
24	10	32	2,8	5,3
25	9	12	2,5	2,0
26	0	6	0,0	1,0
27	9	36	2,5	6,0
Total	353	599	100	100

Source: Authors' own database

Another question we want to address is to determine to what degree research in Southern European Countries (France, Italy, Spain, Portugal, Greece, Turkey, and others) has a different orientation of research produced in other European countries. As we can see in Table 7, there are some differences, but they have not the scope we sometimes expect. Southern Europeans tend to pay more attention to subjects that characterise as distinctive the European production (innovation; new technologies; networks; industrial districts; entrepreneurship; globalisation; international trade; multinational firms; foreign direct investment; urban and regional competitiveness).

So far, we only consider the country where first author works. It is also important to determine the relative frequency of joint research between authors working in different countries (Table 8). According to our results, 148 papers (8,9% of total) have been written by authors from two or more countries (only four papers were written by authors working in three different countries). From those 148 papers, 43 have authors working in Europe and North America. From these 43 papers 11 correspond to joint work between authors working in North America and in the United Kingdom and 8 to joint work between North America and Switzerland, authors.

Table 8
Joint Papers between Europe and North American authors, 1990-1998

European Country	North American Country	Number of Papers
Austria	USA	3
Belgium and France	Canada	1
Germany	Canada	1
France	Canada	2
France	USA	2

Germany and Sweden	USA	1
Italy and France	Canada	1
Netherlands	Canada	1
Netherlands	USA	1
Portugal	USA	1
Spain	USA	3
Sweden	USA	4
Switzerland	Canada and USA	1
Switzerland	Canada	2
Switzerland	USA	5
UK	Canada	2
UK	USA	11
Ukraine	USA	1
Total		43

Source: Authors' own database

This effort of joint research between the two continents is stronger in themes that constitute a core area of research for one the continents. As we can observe in annex 2 such is the case of themes 24, 12, 1, 22 and 11.

4. Conclusions

In this paper we intended to present empirical evidence on the distinctive aspects of Regional Science research produced in Europe when compared with similar research produced in North America. For that purpose we constructed a data set with articles published in seven leading journals in the field of Regional Science. We analysed 1670 articles, which in our view constitute a good basis to detect distinctive features of Regional Science in Europe and North America.

Our results confirm that there is, as a matter of fact, a different approach by researchers in Europe and North America. European researchers tend to work on more policy oriented issues whereas North American researchers tend to develop more abstract issues. European production has its core areas in issues such as innovation, new technologies, networks, industrial districts, entrepreneurship, production systems, flexible production, producer services, globalisation, European Union and cross-border development. North American authors tend to concentrate on issues such as spatial statistics, quantitative methods, spatial markets, general spatial economics, regional growth models and regional disparities.

Regional Science in Europe: a Review

We found a close relationship between place of work of authors of papers published and place of edition of journals in five out of seven journals. The journal orientation and the type of research produced is very similar in each of the sub-spaces considered. It remains to determine which is the cause and the effect. Does journal orientation influences research produced or it is the other way around?

Trying to detect differences between Southern European research and other European research, we found that differences have not the scope we expected. Nevertheless, we can conclude that Southern European authors tend to pay more attention to subjects that are distinctive features of European research in the regional science field.

Although joint production of papers is very frequent, only 148 papers (8,9%) of total have been written by authors working in two or more countries. From those 143 papers, 43 were written by authors working in Europe and North America. Analysing the themes where such collaboration happens we found that it occurs more frequently in subjects belonging to the core areas identified above. It seems that joint research is more useful when one of the parts has a comparative advantage, both in terms of experience of research in the subject and access to journals oriented to such issues.

Annex 1 – Journals in Regional Science and related areas

TITLE	DETAILS OF PUBLICATION			
	1ST YEAR	Issues per Year as in 1997	DOMINANT LANGUAGE	COUNTRY
ASIAN AND PACIFIC MIGRATION JOURNAL (APMJ)	?	4	?	Philippines
JOURNAL OF THE AMERICAN REAL ESTATE AND URBAN ECONOMICS ASSOCIATION (AREUEA)	?	4	English	USA
THE ANNALS OF REGIONAL SCIENCE, An International Journal of Urban, Regional and Environmental Research and Policy (ARS)	1967	4	English	Germany
LES ANNALES DE LA RECHERCHE URBAINE	1978	4	French	France
COMPETITION AND CHANGE, The Journal of Global Business and Political Economy (CC)	1995	?	English	UK
DEMOGRAPHY (DEM)	?	4	English	USA
ECONOMIC DEVELOPMENT QUARTERLY (EDQ)	?	4	English	USA
ECONOMIC GEOGRAPHY (EG)	1925	4	English	USA
ENVIRONMENT AND PLANNING A (EPA)	1969	12	English	UK
ENVIRONMENT AND PLANNING C: Government and Policy (EPC)	1983	4	English	UK
L'ESPACE GEOGRAPHIQUE	1972	4	French	France
EUREG, European Journal of Regional Development (EUROG)	1994	4	English, French, German	Germany
EUROPEAN PLANNING STUDIES (EPS)	1993	6	English	UK
EUROPEAN SPATIAL RESEARCH AND POLICY (ESRP)	1994	4	English	Poland
EUROPEAN URBAN AND REGIONAL STUDIES (EURS)	1994	4	English	UK
ENTREPRENEURSHIP AND REGIONAL DEVELOPMENT (ERD)	?	4	English	Ireland
EUROPEAN RESEARCH IN REGIONAL SCIENCE (ERRS)	?	1	English	UK
GEOGRAPHICAL ANALYSIS (GA)	1969	4	English	USA
GEOGRAPHICAL AND ENVIRONMENTAL MODELLING (GEM)	1997	2	English	UK
GEOGRAPHY AND ENVIRONMENTAL MODELLING (GYEM)	1998	4	English	Canada
GEOGRAPHICAL SYSTEMS (GS)	?	4	English	USA

Regional Science in Europe: a Review

GEOGRAPHIA POLONICA (GP)	?	3	?	Poland
GENDER, PLACE AND CULTURE (GPC)	?	3	English	USA
GROWTH AND CHANGE (GC)	1970	4	English	USA
INTERNATIONAL JOURNAL OF URBAN AND REGIONAL RESEARCH (IJURR)	1977	4	English	UK
INTERNATIONAL PLANNING STUDIES (IPS)	1996	?	English	UK
INTERNATIONAL REGIONAL SCIENCE REVIEW (IRSR)	1975	3	English	USA
JOURNAL OF REGIONAL SCIENCE (JRS)	1961	4	English	USA
JOURNAL OF URBAN ECONOMICS (JUE)	1974	6	English	USA
PAPERS IN REGIONAL SCIENCE: The Journal of the Regional Science Association International (PRS)	1954	4	English	USA
PLANNING PRACTICE AND RESEARCH (PPR)	1986	4	English	UK
PROGRESS IN PLANNING (PIP)	1973	4	English	USA
RÉGION ET DÉVELOPPEMENT (RD)	1995	4	French	France
REGIONAL DEVELOPMENT DIALOGUE (RDD)	?	2	?	Japan
REGIONAL POLITICS AND POLICY - REGIONAL AND FEDERAL STUDIES (RPP)	1991	3	English	UK
REGIONAL SCIENCE AND URBAN ECONOMICS (RSUE)	1975	6	English	The Netherlands
REGIONAL SCIENCE STUDIES (RSS)	N.D.	4	English	USA
REGIONAL STUDIES (RS)	1967	9	English	UK
REVIEW OF REGIONAL STUDIES (RRS)	1970	3	English	USA
REVIEW OF URBAN AND REGIONAL DEVELOPMENT STUDIES (RURDS)	?	2	?	Japan
REVUE CANADIENNE DES SCIENCES RÉGIONALES (RCSR)		3	English French	Canada
REVUE D'ÉCONOMIE INDUSTRIELLE (REI)	1977	4	French	France
REVUE D'ÉCONOMIE RÉGIONALE ET URBAINE (RERU)	1978	4	French	France
RURAL SOCIOLOGY (RSOC)	?	4	English	USA
SPACE AND POLICY (SP)	1997	4	English	UK
SYSTEMI URBANI (SU)	1979	4	?	Italy

Regional Science in Europe: a Review

SOCIO-ECONOMIC PLANNING SCIENCES (SEPS)	?	4	English	USA
TIJDSCHRIFT VOOR ECONOMISCHE EN SOCIALE GEOGRAFIE (TESG)	?	5	?	The Netherlands
THE RURAL SOCIOLOGIST (TRS)	?	4	English	USA
TOWN PLANNING REVIEW (TPR)	1910	4	English	UK
URBAN GEOGRAPHY (UG)	1980	8	English	USA
URBAN STUDIES (US)	1964	9	English	UK

Source: Benko, G. 1998, *La Science Régionale*, Paris: Presses Universitaires de France, pp. 18-21.

IRSR, vol.21, no. 3, pp. 252-257.

Annex 2 - Joint papers written by European and North American authors, by theme, 1990-98

Themes	Number of papers	% of joint papers between European and North American Authors
1	4	9,3
2	2	4,7
3	0	0
4	1	2,3
5	1	2,3
6	0	0
7	0	0
8	4	9,3
9	1	2,3
10	2	4,7
11	4	9,3
12	5	11,6
13	0	0
14	2	4,7
15	0	0
16	0	0
17	0	0
18	0	0
19	0	0
20	0	0
21	0	0
22	3	7,0
23	0	0
24	7	16,3
25	4	9,3
26	1	2,3
27	2	4,7
Total	43	100

Source: Authors' own database

¹ Petty, W., *The Economic Writings of Sir W.P.* (edited in 1901).

² Cantillon, R., 1755, *Essai sur la Nature du Commerce en Général*

³ Von Thünen, J.H., *Der isolierte Staat in Beziehung auf Landwirtschaft und Nationalökonomie*, Hamburg and Rostock, 1826-1863.

⁴ Launhardt, W. 1882, *Die Bestimmung des zweckmassigsten Standortes einer gerverblichen Anlage*, *Zeitschrift des vereins deutscher Ingenieure*, no. 3, and 1855, *Mathematische Begründung des Volkswirtschaftslehre*.

⁵ Weber, A., 1909, *Über den Standort der Industrien*, Tübingen

⁶ Christaller, W., 1933, *Die Zentralen Orte in Süddeutschland*, Iena, Fischer

⁷ Lösch, A., 1940, *Die Räumliche Ordnung der Wirtschaft*, Iena, Fischer

⁸ Other important contributions are those of Alfred Marshall (1890), *Principles of Economics* and Tord Palander (1935) *Beiträge zur Standortstheorie*, Uppsala.

⁹ An important North-American contribution is that of H.Hotelling's 1929 paper, *Stability in Competition*, published in *The Economic Journal*.

¹⁰ Some years later, seminal work by R. F. Muth 1961, *The spatial structure of the housing market*, *Papers of the R.S.A.*, vol. 7, L. Wingo 1961, *Transportation and urban land*, *Resources for the Future*, Washington and W. Alonso 1964, *Location and Land Use. Toward a General Theory of Land Rent*,

Cambridge, MA, Harvard University Press, contributed to the emergence of another field of spatial economics: urban economics.

¹¹ The birth of the field of Regional Science is commonly associated with the formation of the regional Science Association (RSA).

¹² Isard, W., 1956, *Location and Space Economy*, London, Chapman & Hall

¹³ F. Perroux (1950), *Les espaces économiques*, *Economie Appliquée*, no. 1, pp. 225-244.

¹⁴ Ponsard, C., 1955, *Economie et Espace. Essai d'intégration du facteur spatial dans l'analyse économique*, Paris. Sedes

¹⁵ As for instance the Department of Regional Science at the University of Pennsylvania.

¹⁶ As for instance Funck (1989, published in 1991), Jensen (1991), and the panel on "Regional Science in crisis" held during the 32nd Meeting of the Western Regional Science Association and published in 1994 in the PRS: Bailly and Coffey (1994), Gibson (1994), Plane (1994), Vickerman (1994). On the other side of the Atlantic, a similar concern gave rise to contributions from a group of students of the University of Bordeaux (Columbus, RERU, 1995, no. 2). In fact, this particular RERU number contains other contributions on the same subject.

¹⁷ Special joint sessions have been organised in annual regional science meetings, by European and North-American dominated regional science associations. There is also an increasing participation of North-American researchers in major European meetings and of European researchers in North-American meetings.

¹⁸ See annex 1. Journals in the regional and urban studies group are mainly in the following subject areas: economics, geography and planning. Some of the journals listed are not primarily regional or urban studies journals, but they are often cited by regional or urban researchers (Taylor and Johnes, 1992: 94).

¹⁹ Selected European journals are: *ARS* – The Annals of Regional Science ; *EURS* – European Urban and Regional Studies; *RERU* – Revue d'Economie Régionale et Urbaine; *RS* – Regional Studies.

²⁰ Selected North-American journals are: *JRS* – Journal of Regional Science; *IRSR* – International Regional Science Review; *PRS* - Papers in Regional Science

²¹ Among selected journals we have two "official" journals of the main international regional science associations – the RSAI which is English speaking dominated and the ASRDLF, which aggregates mainly French speaking researchers.

²² The ASRDLF was founded in 1961, by F. Perroux and W. Isard, under the initiative of J. Boudeville (Lajugie, Delfaud and Lacour, 1985: 145).

²³ As for instance, contributions in the "Policy review" section of *Regional Studies*.

²⁴ All the selected papers have been loaded in a database using Microsoft Access software. Authors wish to acknowledge the contribution of Jorge Barreiros, José Rodrigues, Michel Moreira and Ricardo Campos in loading the database that supports this research.

²⁵ Affiliation of the authors at the time of publication reflects "the actual research output produced, in contrast to the current affiliation of the authors which might serve as a proxy for future research output for the current institution" (Kalaitzidakis et al., 1999, 1152).

References

Bailly, A. and W. Coffey, 1994, *Regional Science in Crisis: a Plea for a more Open and Relevant Approach. Papers in Regional Science*, Vol. 73, no. 1, 3-14.

Benko, G., 1998, *La Science Régionale*. Paris, Presses Universitaires de France.

Blaug, M., 1979, *The German Hegemony of Location Theory: a Puzzle in the History of Economic Thought. History of Political Economy*, Spring, 1979.

Burton, M.P., E. Phimister, 1995, *Core Journals: a Reappraisal of the Diamond List. The Economic Journal*, 105, 361-373.

Dusansky, R., C.J. Vernon, 1998, *Rankings of U.S. Economics Departments. Journal of Economic Perspectives*, Vol. 12, no.1, 157-170.

Elliott, C., D. Greenaway, D. Sapsford, 1998, *Who's Publishing Who? The National Composition of Contributors to Some Core US and European Journals. European Economic Review* 42, 201-206.

- Frey, B.S., R. Eichenberger, 1993, American and European Economics and Economists. *Journal of Economic Perspectives*, Vol. 7, no. 4, 185-193.
- Funck, R.H., 1991, Regional Science in Transition. *Papers in Regional Science*, Vol. 70, no.1, pp.1-8.
- Gibson, L., 1994, Fixing the Fix We're in. *Papers in Regional Science*, Vol. 73, no. 1, pp.15-18.
- Graves, P.E., J.R. Marchand, R. Thompson, 1982, Economics Departmental Rankings: Research Incentives, Constraints, and Efficiency. *The American Economic Review*, Vol. 72, no. 5, 1131-1141.
- Hirsch, B.T., R. Austin, J. Brooks, J. Bradley Moore, 1984, Economics Departmental Rankings: Comment. *The American Economic Review*, Vol.74, no. 4, 822-826.
- Jensen, R.C., 1991, *Quo Vadis*, Regional Science?. *Papers in Regional Science*, Vol. 70, no. 2, pp. 97-112.
- Kalaitzidakis, P., T.P. Manuneas, T. Stengos, 1999, European Economics: An Analysis based on Publications in the Core Journals. *European Economic Review* 43, 1150-1168.
- Kirman, A., M. Dahl, 1994, Economic Research in Europe. *European Economic Review* 38, 505-522.
- Laband, D.N., M.J. Piette, 1994, The Relative Impacts of Economics Journals: 1970-1990. *Journal of Economic Literature*, Vol. XXXII, 640-666.
- Lajugie, J., P. Delfaud and C. Lacour, 1985, *Espace Régional et Aménagement du Territoire*. Paris, Dalloz.
- Nijkamp, P., E.S. Mills, 1986, Advances in Regional Economics, in Nijkamp, P. (ed.), 1986, *Handbook of Regional and Urban Economics*, Vol. 1, Elsevier Science Publishers BV, pp. 1-17.
- Plane, D., 1994, On Discipline and Disciplines in Regional Science. *Papers in Regional Science*, Vol. 73., no. 1, pp. 19-23.
- Portes, R., 1987, Economics in Europe. *European Economic Review*, 31, 1329-1340.
- Romanoff, E., 1995, Paradigm Shifts of Regional Science. *Papers in Regional Science*, Vol. 74, no. 3, pp. 205-208.
- Samuelson, P., 1983, Thunen at Two Hundred, *Journal of Economic Literature*, Vol. XXI, pp. 1468-1488.
- Solow, R.M., 1994, Perspectives on Growth Theory. *Journal of Economic Perspectives*, vol. 8 no.1, 45-54.
- Stigler, G.J., S.M. Stigler, C. Friedland, 1995, The Journals of Economics. *Journal of Political Economy*, Vol.103, no.2, 331-359.
- Taylor, J., J. Johnes, 1992, The Citation Record of Regional Studies and Related Journals, 1980-89. *Regional Studies*, Vol. 26, no. 1, 93-97.
- Vickerman, R., 1994, Regional Science in Crisis? A European View. *Papers in Regional Science*, Vol. 73, no. 1, pp. 33-36.