What do we think are the most important journals in regional science?

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Abstract

This paper reports the results of a survey among regional scientists about what are the most important journals in the discipline. The survey has been conducted online and generated 740 responses. The paper shows strong consensus among the regional science community about the top journals in the discipline. Particularly the top position is almost always occupied by the same journal, irrespective of the method we apply, or the way we subdivide our sample. Marked differences can only be found between countries, particularly between European countries on the one side and the US and Japan on the other.

When we correlate our results with the impact factors of the journals, we cannot find a strong positive correlation. Correlation coefficients are small and most of the time negative.

1. Introduction

In various respects the academic world has become more competitive in recent years. With money notoriously in short supply, researchers and research institutions nowadays compete at numerous levels. At an international level the EU illustrates this quite clearly in its Lisbon-strategy. It aims to make the European Union "the most dynamic and competitive knowledge-based economy in the world" by 2010. One of the instruments for this is boosting research and innovation. While this can be viewed as good news for research and innovation in general, the necessary concentration processes and targeting of efforts put the European countries and research institutions in competition to one another.

The need to apply the basic economic question, i.e. where the scarce resources are best invested in order to achieve the best results, to higher education and research stimulates demand for evaluation at all levels; between countries, between institutions, disciplines, departments, all the way down to the individual researchers, who compete for recognition and a limited number of positions. Whenever research is involved, every evaluation effort is faced with the problem of measuring the outcome of research activities. The diversity of those outcomes makes evaluation of research very complicated and cumbersome. Although we will probably agree that not all research produces equally valuable results, the question of how to decide about the value of research outcomes typically stimulates long and heated discussions.

[1] The questionnaire and the full list of all the rankings is available at http://www-sre.wu-wien.ac.at/journals.html

When evaluating basic research, one of the main problems is the need to combine publications in different forms of literature and different media within each form of literature in one evaluation. This immediately places these forms and media in relation to one another and implicitly or explicitly states that one is more valuable than the other. Are journal articles worth more than articles in edited books? Is a publication in journal A more valuable than one in journal B? Does everything published in a journal count as an article or are there different categories of publications? Does a long review article carry the same weight as a short, but highly technical publication? These are questions that everyone dealing with research evaluation has to cope with at some time.

The broader the scope of the evaluation, the more severe these problem becomes, because it attempts to apply a unifying framework to a heterogeneous group of researchers, research groups, disciplines, or even institutions. But, even in a comparatively narrow field like regional science there are no easy answers to these questions. Different traditions, research cultures, specializations, etc. make the creation of a unifying framework for evaluation extremely difficult. One of the most fundamental questions is that about the comparative value of journals as publication channels. Various ratings, rankings, and bibliometric indicators have been proposed. They will be discussed in section 2 of the paper.

As we will see, all quality indicators attempt to reflect the reputation that a specific journal has in the scientific community. Therefore, one can also try to answer this question by asking the members of the scientific community. This approach is taken in this paper. In the next section we will discuss the question of what is meant by the "quality of a journal", the process of development of a reputation and its relationships to the scientific production process. In this section we will also discuss various ways of assessing the quality of journals. In section 3 we will describe the questionnaire that we have used in our study, section 4 will deal with the sample and the respondents. Section 5 will present the results of the analysis. The paper ends with summary and conclusions in section 6.

2. Reputation, quality, and impact of journals

Scholarly journals are a central element in the scientific production process. Although the majority of journals is produced and distributed by commercial publishers, the scientific community is essential for the development of a journal. The scientific community provides the input in form of paper submissions, consumes the output in form of subscription and readership, and contributes to the quality management in form of refereeing the submissions. In many cases the strategic management of a journal is in the hands of the scientific community as well. Either one of the two sides is highly differentiated. Even within one discipline there is a large number of journals with different thematic orientations, history, geographical focus, etc. on the one hand, and on the other a highly diverse scientific community with many thematic niches, institutional relationships, work environments, etc.

A key element in this complex relationship is the reputation of a journal. We will try to define reputation later. The reputation of a journal is probably closely connected on the one hand to the reputation of the articles it publishes and that of their authors and on the other hand to the reputation of its publisher and the members of its editorial board. Articles that are published in journals of high reputation are more visible in the scientific community than the same article published in a journal of low reputation. Simply the fact that an article is published in a journal of high reputation raises the reputation of the article and its author. Additionally, the article is more likely to be cited by other scholars, which further raises the reputation of the

article, the author, and the journal. On the other hand, publishing important articles by scholars with high reputation raises the reputation of the journal, the publisher, and the members of its editorial board.

Shapiro (1982) defines the reputation of a firm as the consumer's expectations regarding the quality of the firm's products. By analogy, the reputation of a journal can be seen as the expectations of the scientific community about the quality of articles published in this journal (Bräuninger, Haucap, 2003). Similarly, the reputation of an author is the scientific community's expectation about the quality of an article written by that author. So, it is the perception in the scientific community and the expectations derived therefrom that generates reputation.

To some extent, in our definition of reputation we clarify one vague term, "reputation", by reference to another, "quality". The research evaluation policy project of the Australian National University discusses three key concepts in this context: 'research quality', 'impact', and 'scientific excellence'. They conclude that although research quality includes some objectively measurable elements, it is essentially a relative concept that "in its complexity can only be judged by peers" (REPP, 2005, p. 3). Quality "is not just intrinsic to research but judged by others with differing research interests and social goals" (Martin, Irvine, 1983, p. 70). "Quantitative indicators may be related to quality and measure certain aspects of it, but cannot exhaustively represent quality" (REPP, 2005, p.3). Similar arguments are brought forward in the context of 'impact'. It is seen as "the actual influence on surrounding research" (Martin, Irvine, 1983, p.70); again a relative concept that depends on the perception of the scientific community. The journal impact factors, which relate the number of citations of a journal to the number of articles it publishes, cover only part of what really is the impact of a journal. Concerning 'scientific excellence' REPP (2005, p. 4) conclude that "attempts to define 'scientific excellence' have led to the same difficulties encountered with the definition of 'research quality'".

So, how can the quality of research and through that the quality of journals be assessed? The approach which is almost standard by now is to use the journal impact factors as published by ISI/Thomson Scientific. The impact factor "is calculated by dividing the number of current citations to articles published in the two previous years by the total number of articles published in the two previous years" (ISI Journal Citation Reports, Tutorial). Although it should be clear from the above discussion that number of citations in journal articles is only one part of a journal's impact, and impact is only one aspect of the quality of a journal, we see a tendency to impact factors "as a proxy measure for quality in total" (REPP, 2005, p.4). In addition, there are a number of technical and methodological problems with these measures (van Raan, 2005). Although already for a long time bibliometric researchers warned against the simple use of the standard impact factors (Moen, van Leeuwen, 1995, 1996), their application in this form is still quite common (e.g., Bauer, 2003).

Impact factors and other bibliometric analyses try to measure the reputation of journals via the revealed preferences of the scientific community. The hypothesis is that by citing the articles in a journal, in the case of the impact factor, the members of the scientific community reveal the reputation this journal has for them. An alternative approach is to apply a stated preferences approach and ask the members of the respective scientific community directly about the reputation of the journals. This approach is applied in this paper. Since impact factors are available for many of the journals in our analysis, we can compare the results produces by both approaches. This comparison is reported at the end of section 5.3.

Of course, also the stated preferences approach is not without problems. Some of the more important ones are

- the definition of the relevant scientific community (who belongs to the scientific community in regional science?),
- the method of inquiry (personal interviews, telephone interviews, online questionnaire),
- what should be measured (frequency of use, intensity of use, usefulness, reputation)?
- how should it be measured (free response, selection from a list, constrained selection)?

In the next section we will describe the survey instrument that we have used. Section 4 will describe the sample and the respondents. In section 5 we will present the results of the investigation.

3. The questionnaire

The survey was conducted electronically between March 31st and May 18th 2005. The questionnaire was presented as a series of web-pages and had to be filled in online. It took advantage of this medium in the sense that in the case of some questions options presented to the respondent were derived from their answers to previous questions. This will be described in more detail below.

The questionnaire had two main parts. Part 1 was concerned with regional science journals and tried to gather information about the respondent's valuation of these journals. Various techniques were applied in this context. A detailed description will be given in section 5 together with the analysis of the results yielded by the various question. Part 2 of the questionnaire dealt with the socioeconomic characteristics of the respondents and the characteristics of their work environment. The summary statistics over our set of respondents will be shown in section 4, where we will describe the sample and the respondents.

While part 2 of the questionnaire was identical for all respondents, part 1, the main part, differed between respondents partly due to the answers they gave. The questions in this part followed a logical sequence. After checking the validity of the respondent, the first question asked the respondents to name the five most important journals for their work in regional science. No journals were suggested to the respondents at this stage. The answers to these questions were compared to the titles of a list of 196 important regional science journals. For each of their entries, similar journal titles were suggested to the respondents and they were asked to select the journal title they actually meant (or, to stay with their original entry). This step was meant to eliminate some of the possible ambiguities in the answers to the first question. From the 3256 journals the respondents named in response to this question (in average 4.4 per questionnaire), 2532 (77.8%) were contained in our list. 75 journals from the list were not mentioned at all in response to question one. Among them journals like "Progress in Planning", "GIS World", "Urban Systems", and "Development and Change".

The second question presented a list of journal titles and asked respondents to mark the journals they know. The list depended on the answer to question 1 as it was the union set of the respondent's answer to this question and the 196 journals in our precompiled list. Since this list is almost 200 items long and respondents may get tired going through it, we presented the list in ascending or descending alphabetical order at random. On the one hand, this softens the possible bias, on the other it allows us to check for deterioration effects in the answers to this question. For this test we split our list of journals – ordered alphabetically by title – into

four quartiles and count how often respondents have checked journals from these quartiles as known when the list is presented in ascending or descending order. The result is shown in Table 1. To check, whether the two dimensions are independent, we can apply a chi-square test. It yields a statistic of 158.1 (3 degrees of freedom), implying that we have to reject the null-hypothesis of independence of the two dimensions. We have to conclude that the suspected deterioration effect indeed exists. Although this result raises concerns regarding the validity of our results, the numbers shown in Table 1 do not appear damaging. Also, as long as we combine the results from both orderings, we can expect the effect to be dampened. However, we will have to check to what extent the key results of our analysis are influenced by this ordering.

Ordering	**1st Quart.**	**2nd Quart.**	**3rd Quart.**	**4th Quart.**
Ascending	2403	1619	2010	2023
Descending	1719	1452	2232	2378

Table 1: Selection of journals by ordering

In addition to the options generated from the answers to question 1 and the precompiled list, respondents could add up to 10 additional regional science journals they know. 387 respondents added a total number of 747 journals in this step. The largest number added by one respondent was five.

This second question also served the purpose of reducing the number of options that need to be presented in later questions. This simplified the questionnaire and made it easier to fill in. Since later questions made sense only for journals that the respondents know, the options presented there were only journals that the respondent had either selected in the second question (including those journals mentioned at question 1) or added as additional journals in question 2. In this form the answer to the first two questions determined the options for later questions in the questionnaire.

The chance to structure questions according to earlier answers is not the only advantage offered by an electronic questionnaire. Other advantages are the opportunity for immediate validity checks and the fact that answers can directly be stored in machine readable form. We have utilized both opportunities. As far as validity checks are concerned, the program receiving the responses rejected those that lacked answers to a set of key questions. The main purpose for this step was to avoid messing up the data set with empty entries resulting from respondents just scanning the structure of the questionnaire.

A major risk of an electronic questionnaire is that it can generate a large number of responses quickly. Therefore, the questionnaire and the program behind it need to be pre-tested thoroughly. We did ask local colleagues to check the procedures and ran a pre-test with 50 randomly selected persons from our sample. Since this pre-test did not lead to any changes in the questionnaire, the responses of the pre-test could be added to the final data-set.

4. Sample and respondents

Since it is the aim of this study to find out how regional scientists evaluate the journals in their discipline, we needed to generate a sample of regional scientists. Since the questionnaire

had to be filled in online, we decided to also contact potential respondents electronically, i.e. via email.

We decided to use all sources for email addresses of regional scientists that we had at our disposal. This are the ERSA-member directory and the participants lists of ERSA-congresses since 1998. Because of numerous duplicate entries, this lead to a database with 3789 distinct email addresses. Since the raw data for this database come from a number of years, the entries were checked manually for obvious duplicates, i.e., entries where the same person used different email addresses. In cases where such duplicates were identified, they were combined under one usernumber. However, this step was applied very conservatively since we decided to rather accept the risk of double entries than to erroneously eliminate potential respondents. The precautions we have taken in order to avoid misuse of double entries will be described below.

This step has led to a list of 3491 distinct usernumbers. For each we generated a unique password. Then, email messages were sent to each email address in the database. In these messages we explained the purpose of the survey, informed the recipient about his or her usernumber and password and asked the person to go to the start page and fill in the questionnaire. These email messages were not all mailed at the same time, but over a period of 8 days. Every day between about 200 and 600 not yet contacted usernumbers were selected from the database and approached via email. That an email has been sent to a specific address was recorded in the database.

As expected, a substantial number of email addresses turned out to be invalid. They generated return messages informing about delivery failure. This event was also stored in a specific field in the database. Since we also recorded the fact that a response was submitted for a specific usernumber in the database, we could identify those entries that seemed to have received our email, but have not yet filled in the questionnaire. A reminder email has been sent to those a week after the original contact. This turned out to be important for the response rate of our survey.

Although we have based a major part of our sample selection procedure on participant lists of regional science congresses, not all people in our sample turned out to be regional scientists. We received a substantial number of emails where people responded that they do not consider themselves as being regional scientists. Many co-authored papers with researchers in regional science and contributed to the joint paper from their specific discipline. This illustrates quite impressively the interdisciplinary character of regional science and ERSA congresses. Since these people actively informed us that they are unable to fill in the questionnaire, we marked their database entries in the same way as a failed contact, in order to avoid bothering them with a reminder email. Unfortunately, as a consequence we cannot distinguish between those two groups: those who could not be reached by email and those who said that they are unable to fill in the questionnaire. A total number of 701 persons fall into these two categories. Our guess is that about 2/3 of them belong to the first category. This leaves 2884 persons who seemingly have been reached by email and have not explicitly declined filling in the questionnaire.

Despite its availability on the Internet, we are confident that the questionnaire was filled in only by those persons that we contacted and by each of them only once. The combination of usernumber and password that was emailed to our potential respondents needed to be entered on the entry page to the survey in order to get access to the questionnaire. When the response was finally stored in the data-set, the date and time of this event was stored in the respective

record of the database. This deactivated the usernumber and password, making it impossible to use it again later.

Our survey produced 740 responses that could be used in the analysis. This implies a response rate of 25.7% with respect to the 2884 persons who seem to have received the information and have not explicitly declined filling in the questionnaire. As compared to the 3491 distinct usernumbers in our database the response rate is 21.2%. While the first figure is too high (the denominator does not include some people who declined to fill in the questionnaire), the second one is too low (the denominator includes people who were never informed about the survey). So, the "true" response rate is somewhere between the two, probably closer to the higher one. The results for the first part of the questionnaire will be reported in the next section. In the remainder of this section we will report the characteristics of our respondents.

Most of our respondents (620, 87.9%) come from European countries (including Russia and Turkey). From the Americas come 47 (6.7%), from Asia 37 (5.3%) and one from Australia (0.1%). All together our respondents come from 39 different countries. The 10 countries with most respondents are given in Table 2 (35 responses were missing).

Country	**Number**	**Percent**
The Netherlands	86	12.20%
Germany	77	10.92%
Spain	77	10.92%
Italy	64	9.08%
United Kingdom	41	5.82%
Portugal	40	5.67%
United States	33	4.68%
Finland	29	4.11%
Austria	23	3.26%
Japan	23	3.26%

Table 2: Respondents by country (top 10)

As in other analyses (van Dijk and Maier, 2005; Maier and van Dijk, 2005) the Netherlands are in the lead. They are followed by Germany, Spain and Italy. The number of respondents from the fifth placed UK is already less than half that from the Netherlands. The largest non-European group of respondents is from the US.

Given the high level of mobility of researchers, the country where a respondent lives does not necessarily correspond with the person's cultural heritage. Therefore, we also asked for the respondent's mother tongue. Table 3 shows the results again for the top ten responses (28 missing).

Language	Number	Percent
GERMAN	107	15,03%
DUTCH	80	11,24%
SPANISH	66	9,27%
ITALIAN	65	9,13%
ENGLISH	58	8,15%
PORTUGUESE	51	7,16%
FRENCH	33	4,63%
FINNISH	29	4,07%
GREEK	29	4,07%
JAPANESE	24	3,37%

Table 3: Respondents by mother tongue (top 10)

The largest number of respondents (40, 5.8%) was born in the year 1971. Over half of our respondents are younger than forty. The median year of birth is 1966. The average birth year of our respondents is 1963. This is also reflected in the number of years our respondents are active in the discipline (33 missing). Over half (56.4%) report that they are active for ten years or less. Only 12 respondents (1.7%) are active in regional science for forty years or more. Regional science still seems to be strongly male dominated. Almost three fourth (73.7%) of our respondents are men, only 26.3% women.

Similarly concentrated is the distribution of the type of institutions where our respondents work. 76.5% work at a university, 16.3% at some other research institution. Only small shares work in consulting or policy (2.8% each) or some other type of institution (1.6%). This is also reflected in the type of community to which the respondents are mainly oriented. 81.1% report an academic community as their main orientation, 14.3% policy and 4.6% a professional community.

More balanced among respondents is the regional community to which they are oriented. The results of the respective question are given in Table 4. The two most important communities are at the ends of the spectrum: regional, and international.

Regional Community	Number	Percent
INTERNATIONAL	188	26,40%
CONTINENTAL	147	20,65%
NATIONAL	146	20,51%
REGIONAL	231	32,44%

Table 4: Respondent’s regional community

The questionnaire contains five evaluation questions that were intended to identify the type of work environment the respondents belong to and to check some of the basic hypotheses of our analysis.

The basic hypotheses are:

1. Evaluation of research is important in people’s work environments,
2. Journal articles are an important source of information and stimulate respondent’s research.

In the questionnaire these hypotheses were formulated as statements about the respondent's work environment and research, respectively. With the first statement, 60.5% agreed fully, another 36.1% partially. Only 3.5% of the respondents did not agree with this statement (19 missing cases). The second statement reached even higher consensus. 79.1% agreed fully, 20.1% partially, and only 0.3% rejected the statement (19 missing cases).

The results of the other evaluation questions are given in Table 5.

Statement		**agree**			
		fully	**partially**	**not**	**missing**
Lobbying and politics are more important for my future career than my reputation in the research community.	number	*43*	*286*	*379*	*32*
	percent	5.8	38.7	51.2	4.3
	percent valid	6.0	40.4	53.5	
The topics of my research are defined by myself, not others.	number	*338*	*342*	*39*	*21*
	percent	45.7	46.2	5.3	2.8
	percent valid	47.0	47.6	5.4	
My research contributes to my private income.	number	*131*	*288*	*290*	*31*
	percent	17.7	38.9	39.2	4.2
	percent valid	18.5	40.6	40.9	

Table 5: Evaluation questions

5. Results

Now, let us turn to the main results of our analysis. What do we think are the most important journals in regional science? We can answer this question in a number of ways. We can

1. identify which journal has been mentioned most often on first place in the list of most important journals;
2. identify which journal has been mentioned most often on any place in the list of most important journals,
3. generate an weighted index based on this list and identify the journals that score highest;
4. identify those journals for which the respondents are willing to pay the highest price;
5. identify those journals that the respondents find most useful in their own work; and
6. identify those journals that according to the respondents have the highest reputation.

We will discuss all these approaches and report their results in section 5.1 of the paper.

In addition to answering the key question of this paper, our analysis gives further insight into the process that yields the reputation of a journal. In section 5.2 we will report which journals are best known, used the most and most often followed regularly. In section 5.3 we will analyze the validity of our results and compare them to other rankings, particularly those based on impact factors.

5.1. The most important journals in regional science

Although the five ways of answering the main research question differ considerably, they yield similar results. In particular, the top ranked journal is the same irrespective of which measure we apply. This top ranked journal is "Regional Studies".

Table 6 shows those 21 journals that have been named most often in response to question 1 – *"What are the most important journals for your work in regional science?"* The respondents were asked to name up to five journals and order them by importance (most important first). As we see in table 6, "Regional Studies" has been mentioned by 122 respondents as the top journal in regional science. The second placed "Journal of Regional Science" reaches only 60% of this score; the third placed journal "Regional Science and Urban Economics" just 41.8%. The numbers decline rapidly with the tenth placed journal ("European Planning Studies") reaching less than one tenth of the nominations of "Regional Studies".

Two additional points are worth mentioning: First, "American Economic Review", a highly rated general economics journal reaches position 11 in the ranking (nominated 10 times). Second, as the only non-English language journal, the German language publication "Raumforschung und Raumordnung" gets to 17th place (nominated 8 times).

Question 1, first place:		nominations
1	REGIONAL STUDIES	122
2	JOURNAL OF REGIONAL SCIENCE	74
3	REGIONAL SCIENCE AND URBAN ECONOMICS	51
4	PAPERS IN REGIONAL SCIENCE	41
5	URBAN STUDIES	38
6	JOURNAL OF URBAN ECONOMICS	27
7	ANNALS IN REGIONAL SCIENCE	25
8	ENVIRONMENT AND PLANNING A	22
9	RESEARCH POLICY	14
10	EUROPEAN PLANNING STUDIES	11
11	AMERICAN ECONOMIC REVIEW	10
12	JOURNAL OF ECONOMIC GEOGRAPHY	9
13	INTERNATIONAL REGIONAL SCIENCE REVIEW	9
14	EUROPEAN URBAN AND REGIONAL STUDIES	8
15	ENVIRONMENT AND PLANNING B - PLANNING AND DESIGN	8
16	TRANSPORTATION RESEARCH PART A: POLICY AND PRACTICE	8
17	RAUMFORSCHUNG UND RAUMORDNUNG	8
18	TRANSPORTATION RESEARCH PART B	7
19	LANDSCAPE AND URBAN PLANNING	6
20	JOURNAL OF ENVIRONMENTAL ECONOMICS AND MANAGEMENT	6
21	ECONOMIC SYSTEM RESEARCH	6

Table 6: Most important journals, first place

The result in Table 6 is based only on who the respondents identified as number 1 in their individual list of top journals. However, they could nominate up to five journals, additional information that should be taken into account. This raises the question of how to weight the entries in the various positions. The results in Table 6 can be viewed as the result of weighting the top position by 1 and all the other positions by 0. Alternatively, we can weight all positions equally (by 1, for the sake of simplicity) or with some declining weights. When we weight them all equally, we get the number of times a journal has been nominated in any place within the respondents' top five journals. This results in the ranking of Table 7. We see that "Regional Studies" is again at the top of the list, but now followed more closely by the next journals; "Journal of Regional Science" and "Papers in Regional Science". When compared to the ranking based on top position (Table 6), we see that "Papers in Regional Science" and "Annals in Regional Science" move up the list, while the urban oriented journals "Urban Studies" and "Journal of Urban Economics" move down. The "American

Economic Review" only scores 13th in this ranking, "Raumforschung und Raumordnung" vanishes completely from the ranking.

Question 1, all nominations, no weighting		nominations
1	REGIONAL STUDIES	308
2	JOURNAL OF REGIONAL SCIENCE	239
3	PAPERS IN REGIONAL SCIENCE	226
4	REGIONAL SCIENCE AND URBAN ECONOMICS	189
5	ANNALS IN REGIONAL SCIENCE	139
6	URBAN STUDIES	138
7	JOURNAL OF URBAN ECONOMICS	118
8	ENVIRONMENT AND PLANNING A	112
9	INTERNATIONAL REGIONAL SCIENCE REVIEW	71
10	EUROPEAN PLANNING STUDIES	65
11	JOURNAL OF ECONOMIC GEOGRAPHY	54
12	EUROPEAN URBAN AND REGIONAL STUDIES	52
13	AMERICAN ECONOMIC REVIEW	39
14	RESEARCH POLICY	39
15	INTERNATIONAL JOURNAL OF URBAN AND REGIONAL RESEARCH	36
16	ENVIRONMENT AND PLANNING B - PLANNING AND DESIGN	36
17	ENTREPRENEURSHIP AND REGIONAL DEVELOPMENT	32
18	ECONOMIC GEOGRAPHY	31
19	GEOGRAPHICAL ANALYSIS	29
20	TRANSPORTATION RESEARCH PART A: POLICY AND PRACTICE	28

Table 7: Most important journals, number of times mentioned

Table 6 and Table 7 represent quite extreme weighting schemes. We may want to take into account all nominations by the respondents, but give more weight to those nominations which are higher. One way of implementing this is to weight the top mentioned journal by 5, the second by 4, the third by 3, fourth by 2 and fifth by 1. The result of this weighting scheme is displayed in Table 8. Because of the intermediate weighting, the results are also somewhat between those reported in Table 6 and Table 7. Again, "Regional Studies" conquers the top position "Journal of Regional Science" reaches the second place. As compared to Table 6, "Papers of Regional Science" scores higher, as does "Annals in Regional Science", but not as much as in Table 7. Although some journals trade places or move a few positions up or down the list, in all three tables the top positions are occupied by the same journals. Obviously, the weighting of the raw data has only little influence on the results. All of the top journals are internationally oriented, affiliated with a commercial publisher, and publish in English language.

Question 1, weighted (1st place = 5 points, 2nd place = 4 points, ...):		index score
1	REGIONAL STUDIES	1141
2	JOURNAL OF REGIONAL SCIENCE	852
3	PAPERS IN REGIONAL SCIENCE	701
4	REGIONAL SCIENCE AND URBAN ECONOMICS	651
5	URBAN STUDIES	456
6	ANNALS IN REGIONAL SCIENCE	419
7	JOURNAL OF URBAN ECONOMICS	381
8	ENVIRONMENT AND PLANNING A	342
9	INTERNATIONAL REGIONAL SCIENCE REVIEW	206
10	EUROPEAN PLANNING STUDIES	201
11	EUROPEAN URBAN AND REGIONAL STUDIES	160
12	JOURNAL OF ECONOMIC GEOGRAPHY	152
13	RESEARCH POLICY	141
14	ENVIRONMENT AND PLANNING B - PLANNING AND DESIGN	125
15	AMERICAN ECONOMIC REVIEW	117
16	ENTREPRENEURSHIP AND REGIONAL DEVELOPMENT	100
17	TRANSPORTATION RESEARCH PART A: POLICY AND PRACTICE	99
18	INTERNATIONAL JOURNAL OF URBAN AND REGIONAL RESEARCH	94
19	ECONOMIC GEOGRAPHY	90
20	GEOGRAPHICAL ANALYSIS	85

Table 8: Most important journals, weighted 5, 4, 3, 2, 1

One problem with a ranking based on first, second, third, etc. place nominations is that we do not know how the respondents weight these positions. It could well be that for one respondent the journal he or she puts in top position is more than ten times more important than his or her second one, while for another respondent the difference in importance between all five journals may only be marginal. Since we do not know these differences, we cannot take them into account in the analysis. As a substitute, we typically apply either our own or some plausible weighting scheme.

To address this problem, we have formulated one question later in the questionnaire (question 9) that tries to implement a contingent valuation experiment. The respondents are given the following scenario:

> Suppose, the library is evaluating its journal subscriptions. It asks every faculty member in your university to allocate 50 value points to journals the library should subscribe to. In the end, the value points allocated to each journal will be added and those journals that have the most points will be available at the library in the future. Please, allocate your value points to those journals that you want to find in the library.

In the analysis we do exactly what we said the library will do, i.e. add up the value points assigned by the respondents in order to get a ranking of journals. The results are given in Table 9. Again, “Regional Studies” gets the top position with the usual suspects following. The only notable exception is “American Economic Review” which gets to second rank, clearly ahead of third ranked “Journal of Regional Science”. Obviously, our respondents are willing to give up subscription to important regional science journals for securing the availability of this general economics journal. This result probably says more about the composition and scientific orientation of regional scientists than about the importance of the “American Economic Review” as a regional science journal. It is interesting, however, that an economic approach to the research problem yields this one pronounced exception while other results are practically identical to those derived from the more standard approach.

Value Points of Journals:		value points
1	REGIONAL STUDIES	2320
2	AMERICAN ECONOMIC REVIEW	2043
3	JOURNAL OF REGIONAL SCIENCE	1748
4	PAPERS IN REGIONAL SCIENCE	1428
5	ANNALS IN REGIONAL SCIENCE	1358
6	REGIONAL SCIENCE A ND URBAN ECONOMICS	1258
7	URBAN STUDIES	1175
8	ENVIRONMENT AND PLANNING A	1114
9	JOURNAL OF URBAN ECONOMICS	1064
10	INTERNATIONAL REGIONAL SCIENCE REVIEW	627
11	JOURNAL OF ECONOMIC GEOGRAPHY	599
12	ECONOMIC GEOGRAPHY	578
13	EUROPEAN PLANNING STUDIES	562
14	EUROPEAN URBAN AND REGIONAL STUDIES	554
15	RESEARCH POLICY	516
16	ENVIRONMENT AND PLANNING B - PLANNING AND DESIGN	457
17	ENVIRONMENT AND PLANNING C - GOVERNMENT AND POLICY	388
18	ENVIRONMENT AND PLANNING D - SOCIETY AND SPACE	377
19	INTERNATIONAL JOURNAL OF URBAN AND REGIONAL RESEARCH	354
20	ENTREPRENEURSHIP AND REGIONAL DEVELOPMENT	333
21	TRANSPORTATION RESEARCH PART A: POLICY AND PRACTICE	333

Table 9: Importance of journals, willingness to pay approach

In the steps so far we have derived rankings of journals based on participants' responses. Another way of deriving information about the valuation of journals is to ask participants to rate them according to some predefined scheme. Our questionnaire included two questions that applied this concept. The first one (question 7) asked respondents to rate the journals they know according to how useful they are for their own work in regional science. The second one (question 8) asked them to rate the journals according to their reputation in regional science. While the first question was intended to get information about the respondent's own perception (based on his or her experience), the second one targets the respondent's view of the perception in the discipline. Both cases again offer various options for analysis. We will report the number of times a journal was rated in the top category and an index based on a weighted sum of the categorizations.

Question 7 asked *"How useful are these journals for your own work in regional science?"*. The questionnaire defined 6 categories: top 20%, 20-40%, 40-60%, 60-80%, bottom 20% and irrelevant. By default, every journal was categorized as irrelevant. The results are again very similar to the ones we have reported above. Table 10 gives the results for top category, Table 11 shows the ranking based on the weighted index, where again the weights were 5, 4, 3, 2, and 1. Journals that were categorized as "irrelevant" were not included, or course.

1	REGIONAL STUDIES	181
2	JOURNAL OF REGIONAL SCIENCE	129
3	PAPERS IN REGIONAL SCIENCE	103
4	REGIONAL SCIENCE AND URBAN ECONOMICS	96
5	URBAN STUDIES	90
6	JOURNAL OF URBAN ECONOMICS	84
7	AMERICAN ECONOMIC REVIEW	80
8	ANNALS IN REGIONAL SCIENCE	80
9	ENVIRONMENT AND PLANNING A	77
10	RESEARCH POLICY	54
11	JOURNAL OF ECONOMIC GEOGRAPHY	54
12	EUROPEAN PLANNING STUDIES	48
13	INTERNATIONAL REGIONAL SCIENCE REVIEW	46
14	EUROPEAN URBAN AND REGIONAL STUDIES	39
15	TRANSPORTATION RESEARCH PART B	33
16	ECONOMIC GEOGRAPHY	33
17	TRANSPORTATION RESEARCH PART A: POLICY AND PRACTICE	31
18	ENVIRONMENT AND PLANNING B - PLANNING AND DESIGN	30
19	ENTREPRENEURSHIP AND REGIONAL DEVELOPMENT	27
20	GEOGRAPHICAL ANALYSIS	23

Table 10: Usefulness for own work – number of times categorized in “top 20%”

1	REGIONAL STUDIES	1335
2	JOURNAL OF REGIONAL SCIENCE	1121
3	PAPERS IN REGIONAL SCIENCE	1028
4	URBAN STUDIES	923
5	REGIONAL SCIENCE AND URBAN ECONOMICS	902
6	ANNALS IN REGIONAL SCIENCE	809
7	ENVIRONMENT AND PLANNING A	789
8	JOURNAL OF URBAN ECONOMICS	751
9	AMERICAN ECONOMIC REVIEW	680
10	INTERNATIONAL REGIONAL SCIENCE REVIEW	546
11	JOURNAL OF ECONOMIC GEOGRAPHY	542
12	EUROPEAN URBAN AND REGIONAL STUDIES	498
13	ECONOMIC GEOGRAPHY	461
14	EUROPEAN PLANNING STUDIES	432
15	ENVIRONMENT AND PLANNING B - PLANNING AND DESIGN	366
16	ENVIRONMENT AND PLANNING C - GOVERNMENT AND POLICY	362
17	RESEARCH POLICY	354
18	INTERNATIONAL JOURNAL OF URBAN AND REGIONAL RESEARCH	330
19	ENVIRONMENT AND PLANNING D - SOCIETY AND SPACE	319
20	GROWTH AND CHANGE	294

Table 11: Usefulness for own work – weighted index

The results are again very similar to what we have seen before. Again, “Regional Studies” is in the top position followed by journals that have scored high in the previous analyses as well. We see minor differences between the two versions, but no qualitatively new results.

Question 8 asked “How do you judge the overall reputation of these journals in regional science?“. Again, quintiles from “top 20%” to “bottom 20%” were defined as categories.

"Irrelevant" was not given as a category in this case. Table 12 shows the results for the top category, Table 13 those for the weighted index with the same weights used as before.

1	AMERICAN ECONOMIC REVIEW	230
2	REGIONAL STUDIES	216
3	JOURNAL OF REGIONAL SCIENCE	195
4	REGIONAL SCIENCE AND URBAN ECONOMICS	145
5	ENVIRONMENT AND PLANNING A	139
6	JOURNAL OF URBAN ECONOMICS	135
7	URBAN STUDIES	134
8	PAPERS IN REGIONAL SCIENCE	128
9	ANNALS IN REGIONAL SCIENCE	113
10	JOURNAL OF ECONOMIC GEOGRAPHY	66
11	ECONOMIC GEOGRAPHY	61
12	ENVIRONMENT AND PLANNING B - PLANNING AND DESIGN	60
13	ENVIRONMENT AND PLANNING D - SOCIETY AND SPACE	60
14	ENVIRONMENT AND PLANNING C - GOVERNMENT AND POLICY	55
15	INTERNATIONAL REGIONAL SCIENCE REVIEW	52
16	RESEARCH POLICY	48
17	TRANSPORTATION RESEARCH PART A: POLICY AND PRACTICE	46
18	PROGRESS IN HUMAN GEOGRAPHY	45
19	TRANSPORTATION RESEARCH PART B	45
20	ANNALS OF THE ASSOCIATION OF AMERICAN GEOGRAPHERS	38
21	EUROPEAN URBAN AND REGIONAL STUDIES	38

Table 12: reputation of journals – number of times categorized in "top 20%"

1	REGIONAL STUDIES	1519
2	JOURNAL OF REGIONAL SCIENCE	1393
3	URBAN STUDIES	1249
4	PAPERS IN REGIONAL SCIENCE	1207
5	REGIONAL SCIENCE AND URBAN ECONOMICS	1165
6	AMERICAN ECONOMIC REVIEW	1139
7	ANNALS IN REGIONAL SCIENCE	1085
8	ENVIRONMENT AND PLANNING A	1050
9	JOURNAL OF URBAN ECONOMICS	1022
10	JOURNAL OF ECONOMIC GEOGRAPHY	681
11	INTERNATIONAL REGIONAL SCIENCE REVIEW	661
12	ECONOMIC GEOGRAPHY	647
13	ENVIRONMENT AND PLANNING B - PLANNING AND DESIGN	633
14	ENVIRONMENT AND PLANNING C - GOVERNMENT AND POLICY	622
15	EUROPEAN URBAN AND REGIONAL STUDIES	581
16	ENVIRONMENT AND PLANNING D - SOCIETY AND SPACE	572
17	EUROPEAN PLANNING STUDIES	505
18	INTERNATIONAL JOURNAL OF URBAN AND REGIONAL RESEARCH	477
19	RESEARCH POLICY	409
20	LAND ECONOMICS	403

Table 13: reputation of journals – weighted index

Table 12 is the only one so far where "Regional Studies" does not occupy the top position. "American Economic Review" is categorized within the top 20% in terms of reputation more

often than “Regional Studies” which follows in second place. In Table 13, which takes into account not only the top category all the others as well, this effect is leveled out. “American Economic Review” drops down to sixth position there. This may be the result of different interpretations of the question and the task by the respondents. Those who applied the question only to regional science journals and did not consider AER to fall into this category did not rate it at all. Those who decided to rate AER as well, rated it in the top category.

5.2. Knowledge and use of journals

As we have discussed in section 2, the reputation of a journal is the result of a complex, long term process that involves various elements. Three important elements of this process have been checked as part of our survey:

1. whether a journal is known to the respondents,
2. whether they have experience with a journal (i.e., have ever used it), and
3. whether they regularly follow the information and discussion in a journal.

In questions 3 to 5 we have asked respondents

- *Which journals in the following list do you know?* (question 3)
- *Which of the journals you know have you ever used in your research?* (question 4)
- *Which of the journals you know do you follow regularly?* (question 5)

The results (number of times a journal was marked as known, used, or followed) are given in Tables 14-16. The last column in Table 14 gives the percent of respondents who said to know the respective journal.

We see that the usual suspects are again in the lead. In particular, “Regional Studies” is in the top position in all three tables. So, we can say that the journals that are most highly regarded are also the ones which are known, used, and followed by the largest number of respondents. An interesting strategic question for the publishers of journals, which our analysis cannot answer, is whether knowledge causes reputation or reputation causes knowledge. More detailed analyses would be needed to answer this question.

rank	journal	number	percent
1	REGIONAL STUDIES	572	77.3%
2	URBAN STUDIES	530	71.6%
3	JOURNAL OF REGIONAL SCIENCE	521	70.4%
4	PAPERS IN REGIONAL SCIENCE	491	66.4%
5	REGIONAL SCIENCE AND URBAN ECONOMICS	454	61.4%
6	ANNALS IN REGIONAL SCIENCE	452	61.1%
7	ENVIRONMENT AND PLANNING A	411	55.5%
8	JOURNA L OF URBAN ECONOMICS	397	53.6%
9	AMERICAN ECONOMIC REVIEW	380	51.4%
10	INTERNATIONAL REGIONAL SCIENCE REVIEW	298	40.3%
11	ENVIRONMENT AND PLANNING B - PLANNING AND DESIGN	298	40.3%
12	JOURNAL OF ECONOMIC GEOGRAPHY	296	40.0%
13	ENVIRONMENT AND PLANNING C - GOVERNMENT AND POLICY	293	39.6%
14	ECONOMIC GEOGRAPHY	285	38.5%
15	EUROPEAN URBAN AND REGIONAL STUDIES	282	38.1%
16	ENVIRONMENT AND PLANNING D - SOCIETY AND SPACE	275	37.2%
17	EUROPEAN PLANNING STUDIES	243	32.8%
18	INTERNATIONAL JOURNAL OF URBAN AND REGIONAL RESEARCH	231	31.2%
19	WORLD BANK ECONOMIC REVIEW	221	29.9%
20	LAND ECONOMICS	197	26.6%

Table 14: Known journals

rank	journal	number
1	REGIONAL STUDIES	454
2	JOURNAL OF REGIONAL SCIENCE	405
3	PAPERS IN REGIONAL SCIENCE	383
4	URBAN STUDIES	382
5	ANNALS IN REGIONAL SCIENCE	357
6	AMERICAN ECONOMIC REVIEW	326
7	ENVIRONMENT AND PLANNING A	324
8	REGIONAL SCIENCE AND URBAN ECONOMICS	323
9	JOURNAL OF URBAN ECONOMICS	271
10	ECONOMIC GEOGRAPHY	199
11	INTERNATIONAL REGIONAL SCIENCE REVIEW	185
12	JOURNAL OF ECONOMIC GEOGRAPHY	175
13	EUROPEAN URBAN AND REGIONAL STUDIES	171
14	ENVIRONMENT AND PLANNING B - PLANNING AND DESIGN	167
15	EUROPEAN PLANNING STUDIES	166
16	ENVIRONMENT AND PLANNING C - GOVERNMENT AND POLICY	155
17	ENVIRONMENT AND PLANNING D - SOCIETY AND SPACE	149
18	GROWTH AND CHANGE	139
19	TIJDSCHRIFT VOOR ECONOMISCHE EN SOCIALE GEOGRAFIE	138
20	INTERNATIONAL JOURNAL OF URBAN AND REGIONAL RESEARCH	122

Table 15: Used journals

rank	journal	number
1	REGIONAL STUDIES	335
2	PAPERS IN REGIONAL SCIENCE	279
3	JOURNAL OF REGIONAL SCIENCE	268
4	AMERICAN ECONOMIC REVIEW	232
5	URBAN STUDIES	217
6	ANNALS IN REGIONAL SCIENCE	207
7	REGIONAL SCIENCE AND URBAN ECONOMICS	204
8	ENVIRONMENT AND PLANNING A	180
9	JOURNAL OF URBAN ECONOMICS	157
10	EUROPEAN URBAN AND REGIONAL STUDIES	110
11	EUROPEAN PLANNING STUDIES	109
12	INTERNATIONAL REGIONAL SCIENCE REVIEW	108
13	JOURNAL OF ECONOMIC GEOGRAPHY	104
14	ECONOMIC GEOGRAPHY	102
15	ENVIRONMENT AND PLANNING B - PLANNING AND DESIGN	77
16	RESEARCH POLICY	77
17	TIJDSCHRIFT VOOR ECONOMISCHE EN SOCIALE GEOGRAFIE	71
18	TRANSPORTATION RESEARCH PART A: POLICY AND PRACTICE	68
19	ENVIRONMENT AND PLANNING D - SOCIETY AND SPACE	67
20	ENVIRONMENT AND PLANNING C - GOVERNMENT AND POLICY	67

Table 16: Followed journals

The three concepts inquired in those questions – whether a journal is known, used, and followed – represent nested concepts of increasing intensity of usage. A journal can only be used (ever in their research) by respondents when they know the journal. Regularly following a journal is one intensive form of using a journal.

Ideally, additionally to being highly regarded, a publisher would like to see his journal to be well known and intensively used. Given the large number of journals even in a small discipline like regional science, and the corresponding competition between them, makes this extremely difficult to achieve. Many journals specialize in certain respects, like concentrating on specific topics or covering a certain geographical area better than others. These journals will not be known to such a large number of researchers as the more general international journals, but may be quite effective within their market niche. In that case, a large percentage of those few researchers who know this journal may have used it or may follow it regularly. In order to check for this, we compute "Used"-intensities and "Follow"-intensities. "Used"-intensity is the percentage of people who ever used a journal among those who know it (numbers in Table 15 divided by the corresponding one in Table 14), "Follow"-intensity is the same percentage for those who regularly follow the journal (numbers in Table 16 divided by the corresponding one in Table 14). To avoid the distortion from small numbers of observations, we restrict this part of the analysis to those journals that are reported to be known by at least 50 respondents. The results sorted by the respective index in descending order for "Used"-intensity are shown in Table 17, those for "Follow"-intensity in table 18.

Since these indices do not intend to measure the importance of journals, but rather their effectiveness within their – possibly specialized – community, the results in these tables differ from the previous ones; however, not dramatically. Although "Regional Studies" is not the highest ranking journal in these tables, it is still quite effective (ranked 4th and 3rd, respectively). Also some other journals that we know from the previous lists show up here again among the top twenty. However, what we also see in this list is a number of

geographically specialized journals. Their titles are italicized in the lists. Some of those journals publish in non-English languages, like “Informationen zur Regionalentwicklung”, “Revue d’économie régionale et urbaine”, and “Informationen zur Regionalentwicklung”. „Jahrbuch für Regionalwissenschaft“ and „Scienze regionali” are journals of the German and Italian sections of ERSA, respectively. All these journals seem to be quite effective within their regional markets.

rank	journal	know	know -> used
1	AMERICAN ECONOMIC REVIEW	380	85,79%
2	*INFORMATIONEN ZUR RAUMENTWICKLUNG*	66	80,30%
3	*TIJDSCHRIFT VOOR ECONOMISCHE EN SOCIALE GEOGRAFIE*	172	80,23%
4	REGIONAL STUDIES	572	79,37%
5	ANNALS IN REGIONAL SCIENCE	452	78,98%
6	ENVIRONMENT AND PLANNING A	411	78,83%
7	PAPERS IN REGIONAL SCIENCE	491	78,00%
8	JOURNAL OF REGIONAL SCIENCE	521	77,74%
9	TRANSPORTATION RESEARCH PART A	161	73,91%
10	RESEARCH POLICY	160	73,75%
11	ENTREPRENEURSHIP AND REGIONAL DEVELOPMENT	114	73,68%
12	URBAN STUDIES	530	72,08%
13	REGIONAL SCIENCE AND URBAN ECONOMICS	454	71,15%
14	GROWTH AND CHANGE	196	70,92%
15	FUTURES	113	70,80%
16	AREA	111	70,27%
17	ECONOMIC GEOGRAPHY	285	69,82%
18	*JAHRBUCH FÜR REGIONALWISSENSCHAFT*	122	68,85%
19	PROGRESS IN HUMAN GEOGRAPHY	149	68,46%
20	TRANSPORTATION RESEARCH PART B	136	68,38%

Table 17: Journals (known by 50 or more) with highest “Used” intensity

rank	journal	know	know -> follow
1	*INFORMATIONEN ZUR RAUMENTWICKLUNG*	66	66,67%
2	AMERICAN ECONOMIC REVIEW	380	61,05%
3	REGIONAL STUDIES	572	58,57%
4	PAPERS IN REGIONAL SCIENCE	491	56,82%
5	*SCIENZE REGIONALI/ ITALIAN JOURNAL OF REG. SCI.*	87	52,87%
6	JOURNAL OF REGIONAL SCIENCE	521	51,44%
7	ENTREPRENEURSHIP AND REGIONAL DEVELOPMENT	114	50,88%
8	RESEARCH POLICY	160	48,13%
9	*JAHRBUCH FÜR REGIONALWISSENSCHAFT*	122	46,72%
10	*REVUE D' ECONOMIE REGIONALE ET URBAINE*	56	46,43%
11	ANNALS IN REGIONAL SCIENCE	452	45,80%
12	TRANSPORTATION RESEARCH PART B	136	45,59%
13	*RAUMFORSCHUNG UND RAUMORDNUNG*	109	44,95%
14	REGIONAL SCIENCE AND URBAN ECONOMICS	454	44,93%
15	EUROPEAN PLANNING STUDIES	243	44,86%
16	ENVIRONMENT AND PLANNING A	411	43,80%
17	TRANSPORTATION RESEARCH PART A	161	42,24%
18	ANNALS OF TOURISM RESEARCH	72	41,67%
19	*TIJDSCHRIFT VOOR ECONOMISCHE EN SOCIALE GEOGRAFIE*	172	41,28%
20	URBAN STUDIES	530	40,94%

Table 18: Journals (known by 50 or more) with highest “Follow” intensity

5.3. Validity of the results

In this section we want to evaluate the results we have presented in section 5.1. As we have already mentioned a few times, the results seem to be quite similar irrespective of which approach we use for measuring the importance of the journals. When we look through Tables 6-13, each showing the top 20 (or 21 in case of a tie for 20th place) journals according to the respective criterion, we see the names of 31 different journals. Fourteen of these journals appear in every table. This despite the fact that the indicators are derived through quite different methods. Tables 6-8 are based on respondents’ unsupported nominations of the most important journals, the results in Tables 9-13 are potentially influenced by the journal list we provided.

A more direct measure of the similarities of the various rankings is shown in Table 19. This table shows the correlations between the numbers in the full respective rankings. We see that the correlations are very high. The largest coefficient is 0.996, the smallest 0.76. We get very similar results when we take into account only the 20 or 21 journals listed in Tables 6-13. This shows that the different indicators we used for measuring the importance of journals in our dataset all give very similar result. The choice of method has only minor implications for the results. To some extent, we can choose the instrument based on availability or convenience. Our results indicate that we probably will not make any serious mistake in doing so. Given this result, we would nevertheless expect higher correlation between those listings that are based on more similar results. This is on the one hand between Tables 6-8 and on the other between Tables 9-13. We have marked these areas in Table 19. In the gray areas along the main diagonal we expect to see larger correlation coefficients than in the off-diagonal areas. This is indeed the case. In the gray areas none of the coefficients is smaller than 0.91, in the off-diagonal area eleven of the fifteen coefficients are smaller than 0.91.

	Tab. 6	Tab. 7	Tab. 8	Tab. 9	Tab.10	Tab.11	Tab.12	Tab.13
Tab. 6	1.00	0.95	0.97	0.84	0.91	0.76	0.80	0.77
Tab. 7	0.95	1.00	1.00	0.91	0.96	0.86	0.87	0.86
Tab. 8	0.97	1.00	1.00	0.90	0.95	0.83	0.86	0.84
Tab. 9	0.84	0.91	0.90	1.00	0.97	0.91	0.98	0.92
Tab.10	0.91	0.96	0.95	0.97	1.00	0.91	0.95	0.92
Tab.11	0.76	0.86	0.83	0.91	0.91	1.00	0.91	1.00
Tab.12	0.80	0.87	0.86	0.98	0.95	0.91	1.00	0.92
Tab.13	0.77	0.86	0.84	0.92	0.92	1.00	0.92	1.00

Table 19: Pearson's correlation coefficients between rankings

Because of the high correlation between our various rankings, we will concentrate only on one of the rankings in the rest of the paper. This will be the weighted index reported in Table 8. We will check the validity of the results in this ranking as representative for all our results in section 5.1.

As we can distinguish our respondents by a number of characteristics, we have generated the respective ranking for subsets of respondents and computed correlation statistics between those subsets. This will tell us, how well the overall ranking is also representative for the subgroups. For theoretical reasons, we will expect to find differences for some of the subgroups, but not for others.

Table 20 shows the correlation coefficients between the rankings generated by various subdivisions. Since the answers that generate Table 8 do not depend upon the ordering, we expect a high correlation when we differentiate by ordering. We do not have any strong hypotheses for the differentiation by gender or age. The differentiation by age may give an indication for how persistent the valuation of journals is over time. If, for example, the valuation of journals is generated mainly during the PhD-education of researchers and does not change much according to new developments later, we would expect to see a low correlation between the rankings of young and old researchers. As it turns out, all the correlation coefficients reported in Table 20 are very high. This is expected for the differentiation by ordering and gives confidence into the validity of the results. The coefficients for gender and age show that these groups do not differ substantially in their valuation of the importance of journals.

differentiated by	**correlation**
ordering (ascending, descending)	0.986
gender (male, female)	0.970
age (birthyear < 1963, >= 1963)	0.974

Table 20: correlation between rankings by subgroups

In section 4 we have reported the number of respondents by the type of institution they work at, their main type of community and their regional community. In Tables 21-23 we show the correlation between the rankings when we differentiate the respondents according to these criteria.

As far as the type of institution is concerned, we see a high correspondence between people working at a university (by far the largest group) and people working in some other research

institution. They differ strongly in their evaluation from people working in consulting, policy or some other institution. The respective correlation coefficients are quite low. However, we have to keep in mind that there are only few observations in these other categories.

	University	Research	Consulting	Policy	Other
University	1	0.960	0.593	0.469	0.812
Research	0.960	1	0.621	0.453	0.873
Consulting	0.593	0.621	1	0.344	0.405
Policy	0.469	0.453	0.344	1	0.100
Other	0.812	0.873	0.405	0.100	1

Table 21: Correlation between rankings by type of institution

When we differentiate the respondents by the main type of community they report, we see again two categories with very similar evaluations, academic and policy. The third category, professional, shows lower coefficients in relation to the other two. It is again the category with by far the smallest number of respondents.

	Academic	Professional	Policy
Academic	1	0.792	0.945
Professional	0.792	1	0.814
Policy	0.945	0.814	1

Table 22: Correlation between rankings by main type of community

When we differentiate the respondents by their main regional community, the size of the groups is more balanced, as we know from section 4. As we can see in Table 23, the evaluations of these groups are very similar. Only those who are internationally oriented stick out a little bit as they have slightly smaller correlation coefficients with the other three categories (but still higher than 0.91).

	International	Continental	National	Regional
International	1	0.915	0.927	0.928
Continental	0.915	1	0.965	0.973
National	0.927	0.965	1	0.965
Regional	0.928	0.973	0.965	1

Table 23: Correlation between rankings by main regional community

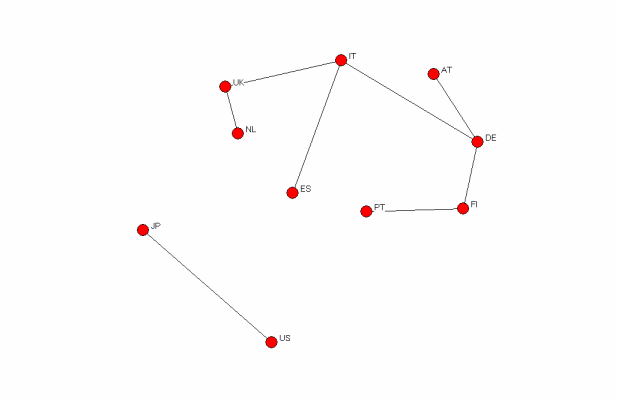
When we differentiate the respondents by country, we find substantial differences. We use only the ten countries with the largest number of respondents (see Table 2). The correlation matrix is displayed in Table 24. The highest correlation coefficient is 0.92 between The Netherlands and the UK, showing that the evaluations by respondents from these countries are most similar. The lowest is 0.27 between the UK and Japan, showing that their evaluations are most different.

These relationships are displayed in Figure 1. The countries are shown as nodes of a network, the correlations as lines between them. In each of the parts of Figure 1 we show the correlation matrix with a specific cutoff value. As mentioned above, the largest correlation is between the Netherlands and the UK, the second largest (0.90) between Germany and Italy. When we show only relationships with a correlation coefficient larger than 0.85 (Figure 1, a), we see two components. The smaller one is formed by Japan and the US (correlation: 0.88), the larger one by all the European countries in the group. When we lower the threshold for including relationships, this structure remains intact down to correlation coefficients larger than 0.77 (Figure 1b). The only difference is that more ties between the European countries appear. At a correlation coefficient of 0.77 Spain connect to the US, at 0.76 it connect to Japan. At a threshold of 0.58 (Figure 1c), we see that Japan and the US are still only connected to Spain, while all the European countries are completely connected (every European country is connected to every other). This shows that on the one hand the evaluations are quite similar between the European countries, and on the other hand differ from those in the US and Japan. Only Spain acts as a bridge between Europe and US plus Japan with correlation coefficients higher than 0.54.

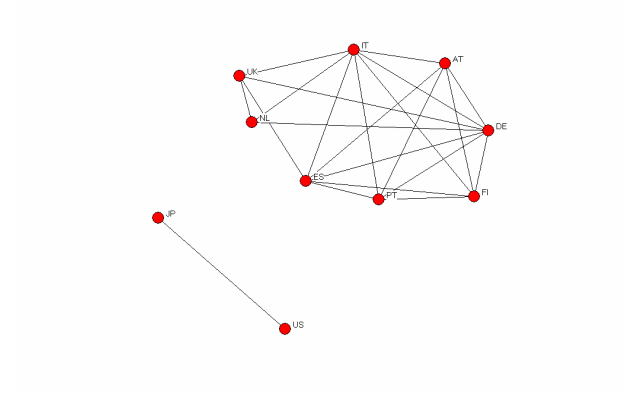
	NL	**DE**	**ES**	**IT**	**UK**	**PT**	**FI**	**AT**	**US**	**JP**
NL	1.00	0.79	0.69	0.83	0.92	0.59	0.69	0.69	0.36	0.29
DE	0.79	1.00	0.84	0.90	0.85	0.84	0.89	0.86	0.49	0.47
ES	0.69	0.84	1.00	0.88	0.81	0.83	0.81	0.84	0.77	0.76
IT	0.83	0.90	0.88	1.00	0.89	0.83	0.80	0.80	0.54	0.50
UK	0.92	0.85	0.81	0.89	1.00	0.75	0.77	0.73	0.39	0.27
PT	0.59	0.84	0.83	0.83	0.75	1.00	0.89	0.78	0.49	0.48
FI	0.69	0.89	0.81	0.80	0.77	0.89	1.00	0.85	0.35	0.29
AT	0.69	0.86	0.84	0.80	0.73	0.78	0.85	1.00	0.42	0.42
US	0.36	0.49	0.77	0.54	0.39	0.49	0.35	0.42	1.00	0.88
JP	0.29	0.47	0.76	0.50	0.27	0.48	0.29	0.42	0.88	1.00

Table 24: Correlation between rankings by country[2]

a) > 0.85



b) > 0.77



c) > 0.58

[2] NL = The Netherlands, DE = Germany, ES = Spain, IT = Italy, UK = United Kingdom, PT = Portugal, FI = Finland, AT = Austria, US = USA, JP = Japan

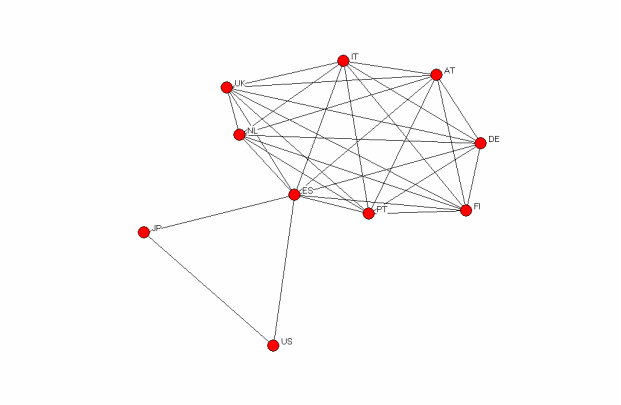


Figure 1: Correlation between rankings by countries

These results by counties remind us of discussions in ERSA about different approaches to research between European countries. Since this argument has typically been stated in terms of differences between southern and northern countries, we derived the rankings for respondents from two groups of European countries and computed the correlation between them. As southern countries we combined Portugal, Spain, France, Italy, and Greece, as northern countries we aggregated UK, Sweden, Netherlands, Denmark, Norway, and Finland. The result shows that the respondents from those groups of countries value regional science journals very similarly. With 0.91 is the correlation coefficient quite high. It is higher than most of the values in Table 24. This shows that the hypothesis of substantial differences between southern and northern countries in Europe is not supported at least as far as perception of quality of journals is concerned.

In section 2 we have discussed the impact factors as an instrument of measuring the importance of scholarly journals. While a survey analysis like ours measures people's perception of the importance of journals, the impact factors are frequently viewed as objective measures of the importance of journals. In section 2 we have reviewed some of the problems with the impact factors and discussed the question whether one instrument or the other is more adequate. Given this, we want to raise the question now, how correlated the results are that the two measures produce.

The results we get (Table 25) are striking. When we collect the impact factors for all the journals in Table 8 – one of the journals, the "Journal of Economic Geography", is not in the SSCI and therefore no impact factor exists – and calculate the correlation coefficient between the point score of the journals and the value of their respective impact factor, the result is a negative correlation coefficient of -0.275. When we ignore the point scores and impact factors and just use them to generate rankings of journals, the rank correlation between the two rankings is -0.281. So, the journals with higher impact factors are considered important journals by fewer of our respondents than those with lower impact factors, and are frequently ranked below them. Looking through the list of journals, "American Economic Review" sticks out as a general economics journal with a high impact factor. Although our respondents have nominated AER as one of the top journals for their work in regional science, one can argue that it does not fit into our list and cause the disturbing negative correlation. However, when we remove ARE from the calculations, the result remains qualitatively the same.

Another potential problem is the short list of journals that the result is based on. To check for this effect, we have decided to include all journals that reach a point score of at least 10,

meaning, for example, that it had been nominated as the most important journal by 2 respondents. This gives a list of 110 journals, 70 of which are in the SSCI and for which therefore impact factors exist. The Pearson correlation coefficient between the point score and the impact factor is still negative and remains negative even when we remove all the economics journals (like "Econometrica", "Journal of Economic Literature", etc.). Only the more indirect measure of the rank correlation coefficient becomes positive. But with values of 0.098 and 0.206 they don't show a strong correlation between the two rankings.

source		**Pearson correlation**	**Rank correlation**
short list (top 20)			
	all	-0.275	-0.281
	excluding AER	-0.222	-0.249
long list (top 110, 70 in SSCI)			
	all	-0.112	0.098
	excluding economics journals	-0.039	0.206

Table 25: Correlation with impact factors

Irrespective of whether the correlation coefficients are negative or slightly positive, the result is that we have to reject the hypothesis of a strong positive relationship between on the one hand our results that are based on the perception of 740 regional scientists of the importance of journals in their discipline and the impact factors of those journals as published by ISI/Thomson Scientific. Either the researchers' perception of the importance of journals is fundamentally wrong or biased, or the impact factor is not a good measure for their perception of the journals and their reputation. Given the discussion in section 2 and the stability of our results between various subcategories and methods of measurement that we have reported above, we tend to favor the second option. However, for a final verdict more in depth analysis would be needed.

6. Summary and conclusions

In this paper we have reported the results of a web-based survey about the importance of journals in regional science. Based on 740 responses (response rate 25%) we can derive a number of results about the reputation of regional science journals. Clearly the most important journal is "Regional Studies". It occupies the top position in almost every ranking that we derive from the survey. Also, we can identify group of top journals that performs strongly in all indicators.

When we divide the sample and compare the rankings for those subgroups, in most cases the results are surprisingly similar. This applies, for example, to gender, age, and main geographical orientation of the respondents. Interesting differences are found when subdividing by country. The valuations for European countries are quite similar, but differ clearly from those of US or Japanese respondents. Within Europe, no strong difference could be found between northern and southern countries.

When comparing our survey based results with the impact factors for our set of journals, we find that the two outcomes are unrelated or negatively related. This shows that the two methods measure different things and one cannot be used as a substitute for the other.

References

Bauer B (2003) *Habilitationskriterium Impact-Factor - Wie evaluieren medizinische Fakultäten wissenschaftliche Leistungen von Habilitanden?*. medizin - bibliothek - information, AKH Wien

Bräuninger M, Haucap J (2003) Reputation and Relevance of Economics Journals. *Kyklos* 56:175-198

Maier G, van Dijk J (2005) *The networks of ERSA*, unpublished manuscript

Martin B, Irvine J (1983) Assessing basic research. Some partial indicators of scientific progress in radio astronomy. *Research Policy* 12:61-90

Research Evaluation Policy Project (2005) *Quantitative indicators for research assessment - a literature review*. Research School of Social Sciences, The Australian National University

Shapiro C (1982) Consumer information, product quality, and seller reputation. *Bell Journal of Economics* 13:20-35

van Dijk J, Maier G (2005) *Knowledge Creation in Regional Science: Does Location matter in ERSA Conference participation?*, unpublished manuscript