RANKINGS OF ACADEMIC JOURNALS AND INSTITUTIONS IN ECONOMICS

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Abstract

We conducted a worldwide ranking of academic institutions that produce research in a list of thirty top research journals in economics. We also computed journal rankings for the same period and hence we do not rely on weights that were computed for research carried out in earlier periods. The United States is clearly the dominant force in the top-fifty group, but European academic institutions are well represented in the group of the top 200 universities worldwide as are universities from Asia and the Far East in particular. (JEL: A14, A10)

1. Introduction

There has been a lot of recent research literature on rankings of economics departments throughout the world. They serve as signals for attracting new faculty and retaining older ones in highly ranked institutions and also help attract the best graduate students. Such rankings are often used by university administrators to allocate scarce education funds to different departments according to their success in these rankings. There has been a long standing tradition for U.S. economics departments to be ranked (see Scott and Mitias 1996, and Dusansky and Vernon 1998 for recent such rankings). Recent European studies of this kind include Kirman and Dahl (1994) and Kalaitzidakis, Mamuneas, and Stengos (1999). There have been also rankings of departments in Asia (Jin and Yau 1999), Canada (Lucas 1995), as well as Australia (Towe and Wright 1995). Rankings are also constructed in other related disciplines such as finance for the same reasons outlined above (Chung and Cox 1990).

Coupé (2003) provides a comprehensive ranking of economics departments

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worldwide. His ranking methodology is based on employing various performance measures from the existing literature, such as the citations weighted journal ranking by Laband and Piette (1994), to assess the output of individual researchers and then according to their affiliation compute the department rankings. He reports the rankings from the different methodologies and he also presents a ranking based on the average of these different methods. However, the latter ranking is based on averaging rank statistics and as such it is not very informative.

A common drawback that permeates most of the studies that produce department rankings is that they are based on a particular ranking of economics journals that was itself constructed over a certain time period that typically is different from the corresponding period of the department rankings. Hence, a typical list of journals that is citations weighted uses weights that correspond to an earlier period from the current one. That means that the most current research outlets that are used by the profession (new journals, improved older journals etc.) are not given their true weights for the period under investigation. Hence, potentially rankings that use a list of research journals with weights from a different period may produce biased and unreliable rankings for the current period. In this paper we try to rectify this deficiency in the literature by both computing an updated list of journal rankings with current weights computed from their citations impact and then using those to produce a worldwide ranking of academic institutions.

The paper is organized as follows. The next section explains the methodology that we employ to arrive at the new journal rankings. We provide details of the way that we arrive at these journal rankings that form the weights to be used for the derivation of the institutional rankings as well as the methodology that is used to construct the latter. In the next section we discuss the results and conclusions follow.

2. Methodology

2.1 Journal Rankings

Ranking economics departments based on research output requires two important ingredients. First, the choice of the set of research output outlets, typically confined to journals, and second the choice of the weights to adjust the different journals in terms of quality, age, and size.

In this paper the set of journals we choose consists of the thirty top economics academic journals based on the number of 1998 citations of articles published in previous periods. There are already some relatively recent rankings of journals based on 1990 citations of articles published in 1985–1989 by Laband and Piette (1994). However, we felt that these rankings should be updated given the rapid expansion of publications, new entrants, and changes in

emphasis in the profession. In fact our findings suggest that the earlier journal rankings do not accurately reflect current trends in the profession and hence all existing studies using them as a basis of constructing department rankings would lead to unreliable and inaccurate results. Below we outline in more detail the methodology we have employed in arriving at a more representative and accurate journal ranking.

One source of valuable information of the citations received by economics journals is Journal Citation Reports (JCR). JCR also ranks economics journals based on the number of citations received. In the column with heading (1) of Table 1 we report the JCR ranking of economics journals based on the number of citations received in 1998 by articles published in previous years (more than ten years). We have standardized the top journal, American Economic Review, to be equal to 100. This ranking is based on the category "economics." The JCR economics category does not include journals that are core journals in other related disciplines, such as the Journal of Finance, although it does include the Journal of Financial Economics. Finally, we have excluded journals that are not academic, such as *The Economist*, even though they are included in the *JCR* economics category. One could argue that the list of journals could be broadened to include such related disciplines as finance, labor and industrial relations, or statistics. Although we recognize the limitation of our more narrow choice, we decided to only look at the economics category in order to keep the number of journals tractable in the calculation of impact adjusted weights.

Even though this ranking as a first approximation seems reasonable, it is in general unsatisfactory for the following reasons: a) self-citations are included, something that biases the rankings (due to the common tendency of authors who publish in specific journals to cite their own articles that appear in these journals more often); b) there is no correction for the age of a journal (older journals tend to accumulate more citations); c) larger journals that tend to publish more articles also attract more citations; and most importantly d) citations are not adjusted for the impact that the most influential journals have on the profession.

In order to correct for self-citations and the age of a journal we have constructed a new ranking of journals based on article citations in 1998 by excluding self-citations and all the citations of articles published before 1994.² For example, the indices in columns with headings (3) to (5) of Table 1 are based on citations in 1998 of articles published only in the years of the period 1994–1998, excluding self-citations.

Our final journal ranking given in the last column of Table 1 is based on citations in 1998 of articles published only in 1994–1998 excluding self-citations and adjusted for impact (influence) and size. To correct for the impact of a journal we have broadly followed the methodology of Liebowitz and

^{1.} There are also other journals such as *Econometric Reviews* that are not included in the *JCR* compilations due to certain licensing disagreements with their publishers.

^{2.} By self-citations we mean all citations from an article in one journal to other articles in the same journal. The age correction involves the exclusion of all citations for articles published before 1994.

TABLE 1. JOURNAL RANKING

Rank*	Journal	(1)	(2)	(3)	(4)	(5)
1	American Economic Review	100.00	100.00	100.00	100.00	100.00
2	Econometrica	88.27	43.79	42.96	71.59	96.78
3	Journal of Political Economy	74.42	48.74	49.40	75.86	65.19
4	Journal of Economic Theory	27.94	37.72	27.08	50.02	58.76
5	Quarterly Journal of Economics	45.98	53.78	52.08	69.83	58.11
6	Journal of Econometrics	27.55	37.44	32.24	36.05	54.91
7	Econometric Theory	4.33	10.36	7.74	17.48	45.85
8	Review of Economic Studies	26.79	19.98	19.64	34.76	45.15
9	Journal of Business and Economic Statistics	10.98	17.65	14.88	20.51	38.41
10	Journal of Monetary Economics	20.67	25.58	24.21	34.14	36.41
11	Games and Economic Behavior	4.58	19.42	16.67	33.61	35.49
12	Journal of Economic Perspectives	17.59	44.07	43.06	37.43	34.26
13	Review of Economics and Statistics	25.90	24.93	24.90	24.44	28.02
14	European Economic Review	13.81	31.28	30.85	23.17	23.76
15	International Economic Review	12.37	14.19	14.19	18.49	23.04
16	Economic Theory	2.93	11.39	10.32	22.11	22.43
17	Journal of Human Resources	12.37	13.45	13.10	17.64	21.34
18	Economic Journal	28.23	36.60	36.31	20.49	20.71
19	Journal of Public Economics	15.97	23.16	19.54	22.42	19.77
20	Journal of Economic Literature	17.00	28.29	28.47	19.73	18.78
21	Economics Letters	10.33	17.09	14.09	11.44	18.73
22	Journal of Applied Econometrics	4.58	9.52	8.53	9.74	16.59
23	Journal of Economic Dynamics and Control	7.07	13.35	10.12	11.40	14.54
24	Journal of Labor Economics	8.15	10.36	9.72	15.00	12.76
25	Journal of Environmental Economi	12.80	23.53	25.00	12.83	11.85
26	Rand Journal of Economics	11.55	13.26	11.01	12.98	11.44
27	Scandinavian Journal of Economics	3.77 29.74	12.79	12.50	10.95	10.66
28	Journal of Financial Economics		16.43	10.22	12.62	9.89 8.35
29 30	Oxford Bulletin of Economics and	6.86	7.19	6.65	4.92	8.33 7.84
31	Journal of International Economics	9.31 4.64	12.98 3.73	11.81 2.28	8.87 4.57	7.64
32	Journal of Mathematical Economics	7.76	10.36	6.55	7.03	7.04
33	Journal of Economic Behavior and Organization	2.66	5.14	3.17	5.20	6.89
33 34	Social Choice and Welfare American Journal of Agricultural	20.14	26.70	17.66	6.15	6.19
35	International Journal of Game Theory	4.24	3.73	2.78	5.12	6.09
36	Economic Inquiry	7.60	8.31	8.13	6.92	6.03
37	World Bank Economic Review	3.97	7.84	8.23	9.08	5.68
38	Journal of Risk and Uncertainty	4.26	5.23	3.27	3.79	5.58
39	Journal of Development Economics	7.86	12.61	11.81	7.14	5.50
40	Land Economics	8.11	13.45	10.91	5.42	5.14
41	International Monetary Fund Staff Papers	4.34	7.84	7.34	6.22	5.12
42	Canadian Journal of Economics—Revue	6.18	8.68	7.14	4.47	5.09
12	Canadienne d'Economique	0.40	7.47	170	(11	4.05
43	Public Choice	9.68	7.47	4.76	6.14	4.95
44	Theory and Decision	2.63	1.68	1.49	2.31	4.90
45	Economica	9.17	6.16	5.85	4.12	4.56
46	Journal of Urban Economics	8.75	9.71	7.54	4.11	4.37
47	International Journal of Industrial Organization	3.48	7.28	6.75	4.22	4.26
48	Journal of Law Economics and Organization	5.35	4.39	3.97	7.63	4.05
49	Journal of Law and Economics	17.56	6.91	4.76	5.90	3.90
50 51	National Tax Journal	5.58	6.72	2.88	3.55	3.87
	Journal of Industrial Economics Journal of Economic History	5.52	6.72	6.15	3.59	3.85
52 53	Oxford Economic Papers	8.19 6.47	7.19	4.56	6.14	3.78
53 54		2.72	9.71	7.64 4.06	3.90 5.48	3.71
55 55	Journal of Comparative Economics World Development	15.65	7.10 19.05	4.96 12.00	5.48 3.02	3.36 3.22
55 56	Southern Economic Journal	7.18	8.78	8.53	2.61	3.22
	Souncin Economic Journal	7.10	0.70	0.55	2.01	5.07

Table 1. Continued

		(2)	(3)	(4)	(5)
57 Explorations In Economic History	2.90	3.83	3.37	5.44	2.97
58 Economic Record	2.09	4.11	1.09	1.25	2.93
59 Journal of Banking and Finance	6.69	13.35	4.37	2.91	2.62
60 Contemporary Economic Policy	1.21	3.92	3.57	2.72	2.42
61 Journal of Population Economics	0.77	3.27	2.08	3.31	2.41
62 Journal of Financial and Quantitative Analysi	s 4.31	3.92	2.88	2.84	2.09
63 Journal of Institutional and Theoretical Econom	ics 3.48	9.24	2.58	2.17	2.01
64 Applied Economics	6.42	11.20	8.13	1.82	2.00
65 Scottish Journal of Political Economy	1.68	2.89	2.68	1.38	1.84
66 Journal of Economics-Zeitschrift fur Volkwirtshaft und Socialpolitik	1.14	1.87	1.29	1.72	1.80
67 Journal of Macroeconomics	1.52	3.55	2.68	1.61	1.75
68 Review of Income and Wealth	2.10	1.96	1.79	2.07	1.74
69 Oxford Review of Economic Policy	1.38	3.08	2.68	1.90	1.64
70 Europe-Asia Studies	1.80	6.72	3.57	1.78	1.63
71 Journal of Health Economics	10.63	9.99	7.44	2.57	1.60
72 Regional Science and Urban Economics	4.11	5.42	3.97	1.99	1.59
73 Journal of Economics and Management Strate		2.61	2.68	1.77	1.38
74 World Economy	2.38	6.16	3.97	1.53	1.34
75 Small Business Economics	1.98	5.23	1.29	1.20	1.33
76 Economic History Review	6.06	7.75	3.47	2.62	1.27
77 Cambridge Journal of Economics	3.90	6.16	4.66	1.03	1.25
78 World Bank Research Observer	1.57	2.24	1.69	1.75	0.93
79 Energy Journal	3.17	3.36	2.08	0.71	0.92
80 Weltwirtschaftliches Archiv	1.67	4.95	3.27	0.75	0.92
81 Kyklos	2.82	3.92	2.58	0.63	0.91
82 Australian Economic History Review	0.42	0.28	0.10	0.26	0.89
83 Ecological Economics	5.55	15.87	2.88	0.74	0.89
84 Review of Industrial Organizatio	1.40	5.88	1.98	0.80	0.87
85 Geneva Papers On Risk and Insurance	0.20	0.84	0.89	0.79	0.87
86 Journal of Transport Economics and Policy	3.24	2.15	1.49	1.02	0.80
87 Economics and Philosophy	1.34	1.59	1.09	0.48	0.78
88 Journal of Accounting and Economics	4.51	5.14	1.59	1.14	0.76
89 Resource and Energy Economics	1.36	1.12	0.99	0.60	0.76
90 Journal of the Japanese and International Economies	1.32	1.87	1.69	1.19	0.76
91 Journal of Agricultural and Resource Econom		4.20	3.08	0.89	0.72
92 Brookings Papers On Economic Activity	0.74	0.93	0.60	0.99	0.71
93 Economic Development and Cultural Change	6.63	3.83	3.27	0.84	0.66
94 Communist Economies and Economic Transformation	0.52	1.59	1.49	0.44	0.65
95 Journal of Regulatory Economics	1.09	2.15	1.29	1.29	0.62
96 Journal of Housing Economics	0.87	3.36	2.68	0.62	0.62
97 Manchester School	1.56	2.24	2.08	0.53	0.60
98 Economic Modelling	0.99	4.95	1.09	0.56	0.54
99 Journal of Policy Modeling	1.82	1.31	1.39	0.49	0.50
100 Developing Economies	0.84	1.03	0.69	0.91	0.50
101 Journal of Productivity Analysis	2.09	2.43	2.38	0.38	0.49
102 Canadian Journal of Agricultural Economics	2.31	4.48	3.17	0.74	0.48
103 Australian Journal of Agricultural and Resour Economics		1.31	1.39	0.32	0.44
104 Journal of Risk and Insurance	2.14	3.92	0.60	0.78	0.43
105 Japan and The World Economy	0.62	1.77	0.99	0.39	0.41
106 Review of Black Political Economy	0.68	0.84	0.69	0.91	0.40
107 Journal of Economic Psychology	2.72	2.89	0.99	0.27	0.38
108 Journal of Economic Issues	3.94	7.38	2.38	0.39	0.37
109 Economics of Education Review	2.49	3.55	1.59	0.38	0.35

Table 1. Continued

Rank*	Journal	(1)	(2)	(3)	(4)	(5)
110	Open Economies Review	0.21	1.68	0.89	0.34	0.34
111	Journal of Agricultural Economics	2.44	3.83	1.98	0.49	0.32
112	Journal of Economic Education	1.24	1.96	0.50	0.65	0.32
113	Journal of Post Keynesian Economics	1.89	3.36	1.69	0.22	0.31
114	Journal of Real Estate Finance and Economics	1.80	5.79	5.06	0.20	0.31
115	European Review of Agricultural Economics	1.60	3.17	1.79	0.37	0.31
116	Jahrbucher Fur Nationalokonomie	0.56	1.68	0.40	0.35	0.30
117	Journal of Evolutionary Economics	0.90	1.40	0.79	0.28	0.27
118	History of Political Economy	2.03	3.36	1.88	0.22	0.24
119	Food Policy	1.50	3.17	2.48	0.40	0.23
120	Real Estate Economics	0.39	2.89	1.39	0.46	0.22
121	Health Economics	6.05	15.22	1.29	0.17	0.20
122	Post-Soviet Affairs	1.11	2.99	1.79	0.14	0.18
123	China Economic Review	0.52	2.89	1.59	0.17	0.18
124	Insurance Mathematics and Economics	0.68	1.68	0.40	0.09	0.16
125	Review of Social Economy	0.73	0.75	0.50	0.14	0.16
126	Defence and Peace Economics	0.31	0.75	0.10	0.31	0.16
127	Bulletin of Indonesian Economic Studies	1.09	2.52	1.09	0.18	0.11
128	Revue Economique	1.54	3.08	1.19	0.09	0.10
129	Post-Soviet Geography and Economics	1.11	5.23	1.79	0.06	0.09
130	International Review of Law and Economics	1.40	1.12	0.40	0.11	0.09
131	Work Employment and Society	3.14	1.87	0.10	0.03	0.08
132	Economic Geography	5.60	2.52	0.60	0.11	0.07
133	Economics of Planning	0.31	1.87	0.60	0.06	0.06
134	Eastern European Economics	0.22	0.75	0.69	0.06	0.05
135	Journal of World Trade	1.49	2.89	0.89	0.07	0.05
136	Futures	4.08	6.72	0.40	0.02	0.05
137	Applied Economics Letters	0.99	3.73	2.88	0.06	0.04
138	Energy Economics	1.59	0.84	0.40	0.03	0.04
139	Journal of Developing Areas	1.01	0.93	0.40	0.06	0.03
140	Agricultural and Resource Economics Review	0.21	1.49	0.69	0.06	0.03
141	Hitotsubashi Journal of Economics	0.41	0.28	0.30	0.02	0.02
142	American Journal of Economics and Sociology	1.53	0.75	0.20	0.01	0.02
143	New England Economic Review	0.42	0.93	0.30	0.02	0.01
144	Economy and Society	5.42	2.15	0.40	0.00	0.00
145	Revue d'Etudes Comparatives Est-Ouest	0.19	1.03	0.10	0.00	0.00
146	Politicka Ekonomie	0.32	2.05	0.40	0.00	0.00
147	Japanese Economy	0.07	0.09	0.10	0.00	0.00
148	Betriebswirtschaftliche Forschung	0.48	1.49	0.10	0.00	0.00
149	Desarrollo Economico	0.50	0.65	0.00	0.00	0.00
150	Economic and Social Review	0.57	0.00	0.00	0.00	0.00
151	Economic Development Quarterly	1.53	1.96	0.00	0.00	0.00
152	Ekonomicky Casopis	0.26	1.21	0.00	0.00	0.00
153	Journal of Media Economics	0.49	0.65	0.00	0.00	0.00
154	Journal of Taxation	2.26	13.45	0.00	0.00	0.00
155	Nationalokonomisk Tidsskrift	0.50	1.49	0.00	0.00	0.00
156	Problems of Economic Transition	0.08	0.09	0.00	0.00	0.00
157	South African Journal of Economics	0.24	0.19	0.00	0.00	0.00
158	Tijdschrift Voor Economische en Management	1.59	0.93	0.00	0.00	0.00
159	Trimestre Economico	0.31	0.28	0.20	0.00	0.00

Notes: * Rank is based on Column (5).

Column (1) JCR Index.

Column (2) Age Adjusted.

Column (3) Age and Self-Citations Adjusted.

Column (4) Impact, Age, and Self-Citations Adjusted.

Column (5) Impact, Age, and Self-Citations Adjusted per Number of Pages.

Palmer (1984) (see also Laband and Piette 1994). This methodology is based on an iterative procedure that we briefly outline next.

Let C_{ij} be the number of citations to journal i from journal j, n the number of journals in our list, Z_i a factor adjusting for the size of a journal and δ_j a dummy variable which usually equals one and which is discussed below. The t iteration is given by

$$I_{i,t} = \frac{\sum_{j=1}^{n} \delta_{j} C_{ij}}{Z_{i}} I_{j,t-1},$$

where

$$I_{i,0} = \frac{\sum_{j=1}^{n} \delta_j C_{ij}}{Z_i}$$

This process usually converges after 10 to 15 iterations.

Columns with headings (1) to (5) present rankings with the least to the most adjustments. The adjusted rankings for impact, self-citations and age of journal are presented in columns with headings (4) and (5). The column with heading (4) presents the journal rankings based on impact, age and self-citations adjustment without adjusting for journal size, i.e., $Z_i = 1$ ($\delta_j = 1$ for all journals). The last column with heading (5) gives the impact, age, self-citations and page adjusted rankings. This ranking for the top thirty journals is the one that we will use in the computation of institutional rankings in the next section. The columns with headings (1), (2), and (3) are the impact unadjusted rankings. The column with heading (1) gives the impact unadjusted JCR rankings, the one with heading (2), the impact unadjusted rankings with only age adjustment, and the column with heading (3) the impact unadjusted rankings with an age and self-citations adjustment.

In Table 2 we conduct robustness tests using different weighting schemes to compute rankings and compare them to the one we chose from the last column of Table 1 for the top thirty journals. That is now given in the first column of Table 2 under the heading "Rank." Columns with headings (2) and (3) use the same adjustments, but they are based on fewer iterations. In column with heading (6) we also present the rankings based on the Laband and Piette weights. In that case, there are some journals that are not present, since their publication start date is fairly recent. All these different rankings give qualitatively similar results, except for column with heading (1). This is the impact and age adjusted rankings without adjusting for self-citations and size and they turn out to be totally different from all the others. Econometrica is ranked 15th and the top two journals are Ecological Economics and the Journal of Environmental Economics and Management, respectively. It is clear that self-citations and size of journal do play a major role when comparing impact adjusted rankings. The rest of the columns are based on different specifications of Z_i . These are the average number of articles each journal published in the period 1996–1998 (this was the only available information in JCR), the average number of pages

Table 2. Robustness for Top Thirty Journals

Rank*	Journal	(1)	(2)	(3)	(4)	(5)	(6)
1	American Economic Review	4	1	1	1	2	1
2	Econometrica	15	2	2	3	1	3
3	Journal of Political Economy	13	3	3	2	3	4
4	Journal of Economic Theory	16	6	5	7	4	7
5	Quarterly Journal of Economics	7	4	4	4	6	5
6	Journal of Econometrics	19	7	6	5	5	15
7	Econometric Theory	42	12	8	18	7	52
8	Review of Economic Studies	26	8	7	9	8	9
9	Journal of Business and Economic Statistics	40	14	11	14	9	26
10	Journal of Monetary Economics	25	9	9	8	10	6
11	Games and Economic Behavior	27	11	12	13	11	_
12	Journal of Economic Perspectives	5	5	10	6	12	11
13	Review of Economics and Statistics	30	13	13	10	13	23
14	European Economic Review	23	10	14	12	16	50
15	International Economic Review	33	19	15	20	15	21
16	Economic Theory	50	22	16	21	14	_
17	Journal of Human Resources	35	20	18	16	17	36
18	Economic Journal	17	15	17	11	19	25
19	Journal of Public Economics	10	16	19	15	20	29
20	Journal of Economic Literature	11	17	20	17	22	18
21	Economics Letters	39	21	21	25	18	31
22	Journal of Applied Econometrics	62	29	22	26	21	_
23	Journal of Economic Dynamics and Control	54	28	23	29	23	34
24	Journal of Labor Economics	48	24	25	19	24	20
25	Journal of Environmental Economics and	2	18	24	22	30	_
	Management						
26	Rand Journal of Economics	31	26	26	23	25	10
27	Scandinavian Journal of Economics	14	27	27	28	27	51
28	Journal of Financial Economics	53	31	28	24	26	2
29	Oxford Bulletin of Economics and Statistics	63	35	30	38	29	44
30	Journal of International Economics	51	30	29	27	32	30

Notes: * Rank is based on impact, age, self-citations and size-adjusted pages.

Column (1) Impact and Age Adjusted Including Self-Citations.

published in the same period taken from ECONLIT, and finally the number of characters published. The total number of characters published per year is calculated as the number of characters per page times the average number of pages published. An index of characters per page (*American Economic Review* equal to 1) for seventy journals were made available to us by Laband and Piette and has also been cross-checked and supplemented with our calculations. In total we have information on the characters per page for ninety two journals. For the journals for which we do not have information we set $\delta_j = 0$ (otherwise $\delta_j = 1$). Thus we do not count these journals as a source of citations but we count them as receivers. Note that this does not constitute a large source of bias for our rankings of the top journals since the lack of information about the characters

Column (2) Impact, Age, and Self-Citations Adjusted per Number of Pages after 2 Iterations.

Column (3) Impact, Age, and Self-Citations Adjusted per Number of Pages after 5 Iterations.

Column (4) Impact, Age, and Self-Citations Adjusted per Article.

Column (5) Impact, Age, and Self-Citations Adjusted per Character.

Column (6) Laband-Piette Ranking based on Impact, Age, and Self-Citations Adjusted per Character.

per page is concentrated in the lower ranked journals, where the impact contribution is very small. It is worth noting that rankings are fairly robust to different measures of size.³

It is interesting to note that in Table 2, comparisons of the various rankings with those of Laband and Piette (1994) suggests that the relative positions of top journals have not changed much. However, the weights have changed considerably. It seems that the distance of most journals from the *American Economic* Review has increased, with the notable exception of Econometrica, which now appears to be the leading economics journal when we use characters per page as a measure of size. In addition, more empirically oriented journals have risen in the rankings, e.g., the Journal of Business and Economic Statistics and the Journal of Applied Econometrics. A surprising result is the appearance of Econometric Theory and Economic Theory in the group of the thirty top journals, when we correct for journal impact. One possible explanation is that these journals receive a lot of citations from top-ranked journals such as Econometrica, Journal of Econometrics, and Journal of Economic Theory. Finally, it is interesting to note that the European Economic Review has risen considerably in stature and it is included in the group of thirty top journals, while in the study of Laband and Piette (1994) it occupied the fiftieth position. Note that there is an overall agreement between all rankings methods for the top group of journals at least as far as the composition of this group is concerned.

2.2 Institutional Rankings

The analysis is based on article publications in the top thirty journals according to our pages adjusted rankings (last column of Table 1) for the five-year period 1995 to 1999. The list of articles includes shorter notes, but excludes book reviews and articles in papers and proceedings volumes. The selection of the top 30 journals provides a rich group of research outlets for the core of economic theory and econometrics as well as the most respected field journals. It is an updated "Diamond List" (see Burton and Phimister 1995) that has been extensively used in the rankings literature as the standard list of quality journals. The last journal that is included in the list, the *Journal of International Economics*, has an adjusted impact factor of 0.0784 compared with 1.00 for the *American Economic Review*. The list of journals that are included account for more than

^{3.} One could argue that different measures are based on different implicit welfare functions. In this context citations per article might be the most appropriate measure since citations are attributed to articles irrespective of their size. However, since the predominant view in the literature is to correct for journal size we have opted to do that in this paper by using pages.

90% of all citations. For these journals there is a broad agreement among all ranking criteria that they belong to the top group; see Table 1. The impact factors for the journals that are excluded from the list are quite small and even if they were included in the calculations they would not make much difference in the overall construction of rankings especially for the top 200 economics departments that we report.

We allocate article pages according to the affiliation of the authors at the time of publication. Affiliations taken from the published articles reflect the actual research output produced, in contrast to the current affiliation of the authors that might serve as a proxy for future research output for the institution where the researcher currently resides. In papers with n coauthors, each coauthor is allocated 1/n pages of the article. In addition, when m affiliations are listed by some author, then we allocate to each affiliation 1/m of the pages that correspond to the specific author. We do not include among the various affiliations those that correspond to certain research centers that act as umbrellas for various researchers but do not offer a permanent home base, such as NBER in the United States of America and CEPR in the United Kingdom. When authors include the above as joint affiliations then all the weight is attached to their primary affiliations. We also excluded from the calculation of rankings the research output that is produced at nonacademic centers such as the various central banks, the World Bank, and the IMF. Since our primary task is to evaluate research carried out at academic institutions, including nonacademic research centers would not constitute a valid comparison, since academics usually have also teaching duties that occupy much of their time. We have included as part of the institutional research output the published research that has been produced by faculty members of business schools that belong to these institutions. That gives an advantage to institutions with large vibrant business schools, such as the top U.S. universities. However, since our task was to record the research output in economics carried out in academic institutions in general, excluding business school output would have left out a significant part of current research. For the same reason we also include as part of a given institution research centers that are located in these institutions and are frequented by researchers. For example, the Institute de Analisis Economico (IAE) has been included as part of Universita Autonoma de Barcelona.⁴

There has been a trend in the recent literature, see Baltagi (1999) and Coupé (2003) to also produce rankings of individuals in the same way as institutional rankings are produced. In so far as these individual rankings simply state the number of total pages published by individuals we are not sure that they address the issue of impact in the profession that various individual researchers may have. Institutional rankings are based on citation's adjusted pages with the

^{4.} It is worth noting that of the total output attributed to the joint affiliation of Universita Autonoma Barcelona and IAE more than 60 percent of the output comes from the IAE part. The total of 304.2 adjusted pages is broken down as 188.56 coming from IAE and 115.66 from Universita Autonoma Barcelona alone.

adjustment factors coming from overall averages. Yet an individual researcher has an impact on the profession because of her/his specific contribution. To conduct a proper and meaningful comparison of individuals one should look at the citations of specific articles that each researcher has published. Also in that case one would like to take a long-run view of this impact and hence examine the rate of citations over time, something that is not apparent from a total number of published pages calculation. To offer such a ranking would require tracking down each individual's citations record, something that is well beyond the scope of the present study.

3. The Results

3.1 World Rankings

Table 3 presents the world-wide rankings of economics departments. Since the current literature is quite exhaustive in the construction of rankings with adjustments based on previous studies (see Kalaitzidakis et al. 1999 and Coupé 2003) we only present the rankings based on the current impact factors for the list of the thirty journals that we discussed in the previous section. The first column presents rankings based on the number of adjusted pages produced by each department, where journals are weighted by the weights from the last column of Table 1. Concentrating on a single methodology gives a clearer impression of the standing of different institutions. Presenting results with different methodologies and then averaging out the different ranks obscures the trends that are taking place in the research output of the profession. Column 4 of Table 3 presents the weighted adjusted pages using the weights from the last column of Table 1 for the chosen set of journals and Column 5 simply presents the unadjusted total pages produced by each institution.

Some very interesting facts emerge from Table 3. U.S. institutions are not in the majority (they constitute 44 percent of the total: 88 entries in the group of 200). European affiliations constitute 35 percent. Including Israel among the European institutions as in Kalaitzidakis et al. (1999) raises the above number to 38 percent. There is 8 percent allocated to Canadian institutions (fifteen institutions). The Asian profession shows a credible presence with 8 percent or 15 institutions in the top 200 group. The rest is made up from five universities from Australia, one from New Zealand, one from Mexico, and one from Chile. The picture is more skewed towards U.S. dominance if one looks at the group of the top fifty universities, where the U.S. schools make up 70 percent of the total. In that group there are seven European institutions (nine if one adds the two universities from Israel), five Canadian, and one from Hong Kong. Harvard, Chicago, and MIT make up the top three universities. There are eighteen U.S. schools in the top twenty with only Tilburg University and the London School

Table 3. World Ranking (Based on Affiliation at Time of Publication, 1995-1999)

U Chicago	Rank*	Affiliation	Country	Adjusted pages	Total pages
MIT	1	Harvard U	USA	2,187.42	4,849.29
4 Northwestern U USA 1,473.60 3,065 5 U PA USA 1,360.83 3,442 6 Yale U USA 1,200.27 2,193 7 Princeton U USA 1,101.66 2,771 8 Stanford U USA 1,010.66 2,771 9 U CA, Berkeley USA 1,010.66 2,771 10 NY U USA 7,73.82 2,061 11 Columbia U USA 746.03 2,285 12 U CA, San Diego USA 746.03 2,285 12 U CA, San Diego USA 711.56 1,591 14 UCLA USA 690.55 1,963 15 Cornell U USA 610.79 1,673 16 U TX, Austin USA 586.69 1,621 17 U Rochester USA 586.69 1,621 18 Tilburg U Netherlands 581.23 1,803 <t< td=""><td></td><td>U Chicago</td><td>USA</td><td>1,846.57</td><td>3,544.41</td></t<>		U Chicago	USA	1,846.57	3,544.41
5 U PA USA 1,360.83 3,442 6 Yale U USA 1,200.27 2,193 7 Princeton U USA 1,161.52 2,504 8 Stanford U USA 1,010.66 2,771 9 U CA, Berkeley USA 991.66 2,507 10 NY U USA 746.03 2,289 11 Columbia U USA 746.03 2,289 12 U CA, San Diego USA 722.64 1,517 13 U MI USA 610.79 1,673 14 UCLA USA 690.55 1,963 15 Cornell U USA 610.79 1,673 16 U TX, Austin USA 586.49 1,628 17 U Rochester USA 586.49 1,628 18 Tilburg U Netherlands 581.23 1,803 19 U W-Madison USA 588.49 1,628 12<		MIT	USA	1,621.67	3,279.77
6 Yale U USA 1,200.27 2,193 7 Princeton U USA 1,161.52 2,504 8 Stanford U USA 1,010.66 2,771 9 U CA, Berkeley USA 791.66 2,507 10 NY U USA 773.82 2,061 11 Columbia U USA 774.63 2,288 12 U CA, San Diego USA 772.64 1,517 13 U MI USA 711.56 1,596 14 UCLA USA 690.55 1,963 15 Cornell U USA 610.79 1,673 16 U TX, Austin USA 586.69 1,621 17 U Rochester USA 586.69 1,621 18 Tilburg U Netherlands 581.23 1,803 19 U WI-Madison USA 571.95 1,551 20 London School of Econ UK 548.84 1,316		Northwestern U	USA	1,473.60	3,065.56
7 Princeton U USA 1,161.52 2,504 8 Stanford U USA 1,010.66 2,771 9 U CA, Berkeley USA 991.66 2,707 10 NY U USA 746.03 2,288 11 Columbia U USA 746.03 2,288 12 U CA, San Diego USA 722.64 1,517 13 U MI USA 740.03 2,288 14 UCLA USA 690.55 1,963 15 Cornell U USA 610.79 1,673 16 U TX, Austin USA 586.49 1,628 17 U Rochester USA 586.49 1,628 18 Tilburg U Netherlands 581.23 1,803 19 U WI-Madison USA 588.49 1,628 18 Tilburg U Netherlands 581.23 1,803 20 London School of Econ UK 548.84 1,516 <td>5</td> <td>U PA</td> <td>USA</td> <td>1,360.83</td> <td>3,442.66</td>	5	U PA	USA	1,360.83	3,442.66
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10	8		USA	1,010.66	2,771.31
11	9	U CA, Berkeley	USA	991.66	2,507.92
12 U CA, San Diego USA 722.64 1,517 13 U MI USA 711.56 1,596 14 UCLA USA 690.55 1,963 15 Cornell U USA 610.79 1,673 16 U TX, Austin USA 586.69 1,621 17 U Rochester USA 586.69 1,621 18 Tilburg U Netherlands 581.23 1,803 19 U WI-Madison USA 571.95 1,551 20 London School of Econ UK 548.84 1,512 21 U MN USA 538.86 1,352 22 Boston U USA 538.86 1,352 23 U Toronto Canada 475.70 1,275 24 U Montreal Canada 472.74 1,150 25 Brown U USA 456.69 1,054 26 Tel Aviv U Israel 446.15 1,072	10	NY U	USA	773.82	2,061.46
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36 U Southern CA USA 384.17 942 37 Hong Kong U of Science and Technology Hong Kong 377.01 915 38 OH State U USA 376.87 1,199 39 U Cambridge UK 371.84 1,060 40 U Oxford UK 370.64 1,267 41 U Pittsburgh USA 368.61 811 42 PA State U USA 347.77 971 43 U IA USA 342.71 816 44 U CA, Davis USA 331.65 929 45 John Hopkins U USA 327.58 762 46 U Toulouse France 322.50 808 47 U VA USA 319.88 1,048 48 Hebrew U Israel 316.72 751 49 U Western Ontario Canada 310.09 828					1,273.22
37 Hong Kong U of Science and Technology Hong Kong 377.01 915 38 OH State U USA 376.87 1,199 39 U Cambridge UK 371.84 1,060 40 U Oxford UK 370.64 1,267 41 U Pittsburgh USA 368.61 811 42 PA State U USA 347.77 971 43 U IA USA 342.71 816 44 U CA, Davis USA 331.65 929 45 John Hopkins U USA 327.58 762 46 U Toulouse France 322.50 808 47 U VA USA 319.88 1,048 48 Hebrew U Israel 316.72 751 49 U Western Ontario Canada 310.09 828					942.30
38 OH State U USA 376.87 1,199 39 U Cambridge UK 371.84 1,060 40 U Oxford UK 370.64 1,267 41 U Pittsburgh USA 368.61 811 42 PA State U USA 347.77 971 43 U IA USA 342.71 816 44 U CA, Davis USA 331.65 929 45 John Hopkins U USA 327.58 762 46 U Toulouse France 322.50 808 47 U VA USA 319.88 1,048 48 Hebrew U Israel 316.72 751 49 U Western Ontario Canada 310.09 828					915.50
39 U Cambridge UK 371.84 1,060 40 U Oxford UK 370.64 1,267 41 U Pittsburgh USA 368.61 811 42 PA State U USA 347.77 971 43 U IA USA 342.71 816 44 U CA, Davis USA 331.65 929 45 John Hopkins U USA 327.58 762 46 U Toulouse France 322.50 808 47 U VA USA 319.88 1,048 48 Hebrew U Israel 316.72 751 49 U Western Ontario Canada 310.09 828			0 0		1,199.22
40 U Oxford UK 370.64 1,267 41 U Pittsburgh USA 368.61 811 42 PA State U USA 347.77 971 43 U IA USA 342.71 816 44 U CA, Davis USA 331.65 929 45 John Hopkins U USA 327.58 762 46 U Toulouse France 322.50 808 47 U VA USA 319.88 1,048 48 Hebrew U Israel 316.72 751 49 U Western Ontario Canada 310.09 828					1,060.48
41 U Pittsburgh USA 368.61 811 42 PA State U USA 347.77 971 43 U IA USA 342.71 816 44 U CA, Davis USA 331.65 929 45 John Hopkins U USA 327.58 762 46 U Toulouse France 322.50 808 47 U VA USA 319.88 1,048 48 Hebrew U Israel 316.72 751 49 U Western Ontario Canada 310.09 828		2			1,267.41
42 PA State U USA 347.77 971 43 U IA USA 342.71 816 44 U CA, Davis USA 331.65 929 45 John Hopkins U USA 327.58 762 46 U Toulouse France 322.50 808 47 U VA USA 319.88 1,048 48 Hebrew U Israel 316.72 751 49 U Western Ontario Canada 310.09 828					811.58
43 U IA USA 342.71 816 44 U CA, Davis USA 331.65 929 45 John Hopkins U USA 327.58 762 46 U Toulouse France 322.50 808 47 U VA USA 319.88 1,048 48 Hebrew U Israel 316.72 751 49 U Western Ontario Canada 310.09 828		•			971.06
44 U CA, Davis USA 331.65 929 45 John Hopkins U USA 327.58 762 46 U Toulouse France 322.50 808 47 U VA USA 319.88 1,048 48 Hebrew U Israel 316.72 751 49 U Western Ontario Canada 310.09 828					816.98
45 John Hopkins U USA 327.58 762 46 U Toulouse France 322.50 808 47 U VA USA 319.88 1,048 48 Hebrew U Israel 316.72 751 49 U Western Ontario Canada 310.09 828					929.56
46 U Toulouse France 322.50 808 47 U VA USA 319.88 1,048 48 Hebrew U Israel 316.72 751 49 U Western Ontario Canada 310.09 828					762.86
47 U VA USA 319.88 1,048 48 Hebrew U Israel 316.72 751 49 U Western Ontario Canada 310.09 828		1			808.06
48 Hebrew U Israel 316.72 751 49 U Western Ontario Canada 310.09 828					1,048.31
49 U Western Ontario Canada 310.09 828					751.31
					828.45
50 C Matonomia Barcelona II Spain 504.24 905					903.73
51 U Amsterdam Netherlands 288.15 871			1		871.27

Table 3. Continued

Rank*	Affiliation	Country	Adjusted pages	Total pages
52 53	U Carlos III	Spain USA	286.18	752.22
55 54	Washington U, St Louis U Essex	USA UK	284.63	670.49
			279.72	826.80
55 56	U Pompeu Fabra	Spain	274.25	872.64
56 57	Catholic U Louvain	Belgium	266.65	728.15
	Erasmus U	Netherlands	261.48	760.99
58	INSEE	France	251.08	469.33
59	U NC	USA	244.03	668.49
60	U FL	USA	237.32	621.39
61	Stockholm School of Econ	Sweden	236.75	727.99
62	Australian National U	Australia	225.09	552.16
63	U Washington	USA	220.29	800.81
64	U Warwick	UK	212.26	903.58
65	U Vienna	Austria	208.30	571.98
66	Dartmouth College	USA	207.15	687.98
67	U Bonn	Germany	201.83	548.16
68	Boston Col	USA	194.77	621.96
69	Rutgers U	USA	194.58	669.50
70	U Copenhagen	Denmark	187.70	571.40
71	U York	UK	187.09	649.91
72	U Southampton	UK	184.81	465.34
73	ITAM-Mexico	Mexico	181.95	368.83
74	Stockholm U	Sweden	176.51	654.51
75	TX A&M U	USA	174.05	826.83
76	U CA, Santa Barbara	USA	170.94	463.75
77	Free U Brussels	Belgium	170.50	384.90
78	IN U	USA	158.24	660.34
79	Humboldt U	Germany	157.76	385.98
80	U Paris I	France	157.44	428.30
81	U New S Wales	Australia	157.10	356.00
82	U AZ	USA	146.90	495.49
83	Technion Israel Institute of Technology	Israel	146.65	301.39
84	Chinese U Hong Kong	Hong Kong	145.08	426.83
85	Vanderbilt U	USA	140.27	550.08
86	York U	Canada	139.60	431.66
87	Southern Methodist U	USA	136.76	498.81
88	VA Polytechnic Institute and State U	USA	134.94	419.66
89	U Bologna	Italy	134.88	329.24
90	Free U Amsterdam	Netherlands	134.41	383.58
91	McMaster U	Canada	132.97	298.33
92	U OR	USA	131.11	394.83
93	U Limburg/Maastricht	Netherlands	129.68	366.98
94	Georgetown U	USA	126.51	456.75
95	U Bristol	UK	126.12	387.82
96	Syracuse U	USA	124.05	449.32
97	U Alicante	Spain	122.72	337.33
98	Rice U	USA	122.49	368.66
99	U Exeter	UK	120.78	403.49
100	Ecole Nationale des Ponts and Chaussees, ENPC	France	119.00	321.33

Table 3. Continued

Rank*	Affiliation	Country	Adjusted pages	Total pages
101	Purdue U	USA	117.60	321.97
102	U Geneva	Switzerland	115.48	348.99
103	U CA, Santa Cruz	USA	114.11	318.67
104	U Guelph	Canada	109.91	319.67
105	U Waterloo	Canada	109.88	266.66
106	U Oslo	Norway	108.41	604.16
107	Osaka U	Japan	107.73	304.00
108	Brandeis U	USA	107.08	253.74
109	U CA, Irvine	USA	105.50	339.91
110	U Edinburgh	UK	105.02	267.50
111	U Laval	Canada	105.00	388.58
112	Emory U	USA	102.63	234.91
113	AZ State U	USA	100.61	410.32
114	Bocconi U, Milan	Italy	100.18	317.44
115	Birkbeck College	UK	99.35	338.16
116	McGill U	Canada	98.57	338.49
117	GA State U	USA	97.35	255.16
118	London Business School	UK	96.16	396.67
119	U Tsukuba	Japan	93.09	186.50
120	U Helsinki	Finland	91.18	251.99
121	U Houston	USA	90.11	320.49
122	Simon Fraser U	Canada	90.01	268.98
123	Indian Statistical Institute	India	89.97	155.00
124	Uppsala U	Sweden	88.41	429.33
125	U CA, Riverside	USA	87.40	261.82
126	U Cergy Pontoise	France	87.09	221.67
127	U Zurich	Switzerland	87.00	172.75
128	U Nottingham	UK	86.70	418.81
129	U CO	USA	85.10	402.48
130	U Munich	Germany	84.23	304.50
131	George Washington U	USA	83.31	332.65
132	SUNY, Albany	USA	83.27	258.00
133	U Venice (Ca Foscari di Venezia)	Italy	83.14	205.33
134	U AL	USA	82.00	206.14
135	U College Dublin	Ireland	81.59	260.00
136	U Quebec (Montreal)	Canada	80.15	334.32
137	Norwegian School Econ and Business Admin	Norway	79.30	471.66
138	U Tokyo	Japan	78.86	164.25
139	U Alberta	Canada	78.67	244.82
140	U Aarhus	Denmark	77.63	300.73
141	U Melbourne	Australia	77.32	219.14
142	Ben Gurion U	Israel	74.72	216.00
143	European U Institute	Italy	74.71	187.84
144	U MS	USA	74.42	164.33
145	U WY	USA	71.27	202.50
146	Seoul City U	Korea	70.65	204.85
147	U Manchester	UK	70.29	313.83
148	DELTA	France	70.05	166.67
149	IA State U	USA	67.59	329.14
150	U Windsor	Canada	67.58	178.50
151	U Chile	Chile	64.97	146.99

Table 3. Continued

			Adjusted	Total
Rank*	Affiliation	Country	pages	pages
152	Free U Berlin	Germany	64.92	222.91
153	U Torino	Italy	64.24	179.63
154	Brigham Young U	USA	63.50	189.42
155	U DE	USA	63.23	138.50
156	U Haifa	Israel	63.22	138.00
157	Keele U	UK	62.70	267.84
158	National U Singapore	Singapore	62.50	173.33
159	Tufts U	USA	62.17	232.00
160	SUNY, Buffalo	USA	61.89	257.67
161	U Birmingham	UK	61.83	177.40
162	U MA	USA	61.38	252.84
163	U GA	USA	61.24	201.00
164	NC State U	USA	60.70	205.56
165	U Notre Dame	USA	60.28	252.33
166	U Hong Kong	Hong Kong	60.15	200.16
167	U Groningen	Netherlands	59.23	179.34
168	Indiana U Purdue-U I	USA	58.02	224.83
169	U Mannheim	Germany	57.68	160.16
170	U Konstanz	Germany	57.67	191.50
171	Monash U	Australia	57.07	186.83
172	U Paris X Nanterre	France	55.85	187.50
173	Catholic U Portugal	Portugal	54.63	197.16
174	U Miami	USA	53.71	150.50
175	U Cyprus	Cyprus	53.49	244.00
176	U Western Australia	Australia	53.32	170.33
177	U Lausanne	Switzerland	52.96	147.33
178	U NC, Greensboro	USA	52.90	171.00
179	Soongsil U	Korea	52.09	98.00
180	U Bielefeld	Germany	50.97	140.83
181	Tohoku U	Japan	50.63	126.00
182	Ewha U	Korea	50.47	128.00
183	U Dortmund	Germany	50.23	137.50
184	National Taiwan U	Taiwan	50.01	132.16
185	U Bergen	Norway	49.71	243.75
186	Kyoto U	Japan	49.26	130.17
187	KS State U	USA	48.91	193.33
188	U St Andrews	UK	48.67	84.75
189	U KY	USA	48.48	185.49
190	Victoria U Wellington	New Zealand	48.36	185.33
191	INSEAD	France	48.26	186.59
192	Athens U Econ and Business	Greece	48.23	129.17
193	OR State U	USA	47.91	160.58
194	Williams College	USA	47.78	127.33
195	U KS	USA	47.44	191.34
196	U MO	USA	47.37	212.15
197	Koc U	Turkey	46.75	113.25
198	Hitosubashi U	Japan	46.66	139.50
199	SUNY, Stony Brook	USA	46.29	148.25
200	U AR	USA	44.73	50.81

 $[\]boldsymbol{*}$ Rank is based on impact, age, self-citations, and size-adjusted pages.

of Economics making it into the top twenty.⁵ The U.S. presence falls to 54 percent in the group of the top 100 and falls further to 44 in the top 200. In that case the European presence (with the inclusion of Israeli schools) doubles from 16 to 33 percent for the top 100 group and it increases further to 37 for the top 200 group. It seems that it is in the group between 50 and 100 that European universities have improved and are doing relatively quite well. In previous studies that only considered the top twenty North American universities, it was asserted that Europe was lagging significantly behind North America and the United States in particular in terms of research (Kalaitzidakis et al. 1999). This may be true for the top twenty institutions as was noted earlier, but it is less so in general. In the comparison that takes place after the group of the top twenty, European institutions are overall at par in terms of research output with their U.S. counterparts. Furthermore, it is interesting to note the presence of the Asian universities that appear in the group of the top 200. In particular, we note that one university from Hong Kong is placed in the top fifty, two are placed in the top 100 and three in the top 200. A total of fifteen universities from Asia appear in the top 200. That makes the distribution of research output more evenly spread worldwide than previous rankings suggest (Coupé (2003), where there were only seven universities from Asia in the top 200). Finally it is worth noting that the sole representative from Central America, ITAM of Mexico, is highly ranked and places in the top 75. The sole South American entry in the top 200 comes from Chile.

One important criticism of the conclusions drawn from the preceding discussion is that Europe may have more universities, and so, the larger the group considered, the more European institutions are included. Hence, there may be a bias towards geographic areas with a large number of institutions. That would appear to be the case if one were to look at percentages of research by continents. For the group of 200, the United States alone accounts for 65 percent of the total output, while Europeans account for about 24 percent, compared to 44 and 35 percent if one were to look at numbers of institutions alone. However, if one were to remove the top 20 institutions from the totals, the relative percentage output contributions of the United States and Europe in the list of the remaining 180 universities is 44 percent for the United States and 37 for Europe. One could then argue that for institutions in the middle tier group of research output Europe is not far behind the United States.

^{5.} It should be noted that the top U.S. institutions benefit from the presence of very strong business schools. A lot of economic research takes place at these business schools. In Europe business schools typically stand on their own as separate entities, and produce relatively little economics research. An important limitation of our approach is that we do not provide a per capita research output for each institution. Abstracting from obvious difficulties of how to handle people moving between institutions during the period of analysis, these rankings may be easier to obtain for the top groups, but they are extremely difficult to obtain worldwide.

^{6.} When looking at the output of the top 200 institutions, besides the United States and Europe, Canada accounts for 7 percent, Asia for 3 percent, Oceania for 1 percent, and Latin America for less than 1 percent of the total. The percentages of contributions to output become even more skewed in favor of the United States if one were to look at the smaller group of the top fifty institutions.

3.2 European Rankings

Table 4 presents the list of the top 120 European institutions. They represent a good cross section of European institutions from nineteen countries. The top university is Tilburg followed by the London School of Economics. This is a very interesting result, since in previous rankings Tilburg was ranked in the top ten European Universities but certainly below institutions such as the London School of Economics, Oxford, and Cambridge. (See Kalaitzidakis et al. 1999, for publications in the core journals in the period 1991 to 1996.) The Netherlands has three universities in the top twenty in Europe and has 7 percent of the total. Spain also has three out of its six placements in the top twenty. This shows that these two countries have made great strides in achieving excellence in research as was noted in the earlier study by Kalaitzidakis et al. (1999). The UK dominates in terms of placements with 31 out of 120 or 26 percent, whereas France and Germany are represented by eighteen and ten universities respectively, or 15 and 8 percent. Israel places six institutions, with Tel Aviv University placing 3rd overall in Europe and the Hebrew University of Jerusalem 8th. Italy has nine universities in the top 120 or 8 percent, whereas Sweden and Switzerland each have five placements or 4 percent. Denmark and Belgium have four universities each, while Austria and Norway have three each. Portugal and Turkey each have two, whereas Finland, Cyprus, Ireland, and Greece have each a single placement.

The UK has six out of its thirty-one placements in the top twenty, with the London School of Economics, University College London, University of Cambridge, University of Oxford, and the universities of Essex and Warwick. In the top twenty, Austria, Spain and the Netherlands have all one-third of their placements in that group. Belgium, Sweden, France, and Germany have each one placement in that group as well. Again, it is apparent that countries like Spain and Netherlands have improved considerably over the last decade and are now producing world class research in economics. Countries such as the United Kingdom and France that traditionally have been the strongest in the European profession still dominate the European scene in terms of the numbers of institutions they place in the top 120.⁷ It is worth noting that Germany and Italy are also represented strongly in that group and the fact that there are nineteen countries represented may indicate that research in Europe at large is becoming a goal that academics in most European countries take as seriously as their colleagues in other continents, especially those across the Atlantic.

^{7.} In terms of percentages the United Kingdom produces about 30 percent of total European output of adjusted pages, the Netherlands about 13 percent, France 10 percent, Spain 9 percent, and Germany 6 percent. This confirms the recent relative improvement of research productivity in the Netherlands and Spain as mentioned earlier.

Table 4. European Ranking (Based on Affiliation at Time of Publication, 1995–1999)

Rank*	Affiliation	Country	Adjusted pages	Total pages
1	Tilburg U	Netherlands	581.23	1,803.81
2	London School of Econ	UK	548.84	1,510.66
3	Tel Aviv U	Israel	446.15	1,072.30
4	U College London, IFS	UK	390.39	1,077.66
5	U Cambridge	UK	371.84	1,060.48
6	U Oxford	UK	370.64	1,267.41
7	U Toulouse	France	322.50	808.06
8	Hebrew U	Israel	316.72	751.31
9	U Autonoma Barcelona-IAE	Spain	304.24	903.73
10	U Amsterdam	Netherlands	288.15	871.27
11	U Carlos III	Spain	286.18	752.22
12	U Essex	UK	279.72	826.80
13	U Pompeu Fabra	Spain	274.25	872.64
14	Catholic U Louvain	Belgium	266.65	728.15
15	Erasmus U	Netherlands	261.48	760.99
16	INSEE	France	251.08	469.33
17	Stockholm School of Econ	Sweden	236.75	727.99
18	U Warwick	UK	212.26	903.58
19	U Vienna	Austria	208.30	571.98
20	U Bonn	Germany	201.83	548.16
21	U Copenhagen	Denmark	187.70	571.40
22	U York	UK	187.09	649.91
23	U Southampton	UK	184.81	465.34
24	Stockholm U	Sweden	176.51	654.51
25	Free U Brussels	Belgium	170.50	384.90
26	Humboldt U	Germany	157.76	385.98
27	U Paris I	France	157.44	428.30
28	Technion Israel Institute of Technology	Israel	146.65	301.39
29	U Bologna	Italy	134.88	329.24
30	Free U Amsterdam	Netherlands	134.41	383.58
31	U Limburg/Maastricht	Netherlands	129.68	366.98
32	U Bristol	UK	126.12	387.82
33	U Alicante	Spain	122.72	337.33
34	U Exeter	UK	120.78	403.49
35	Ecole Nationale des Ponts and Chaussees, ENPC	France	119.00	321.33
36	U Geneva	Switzerland	115.48	348.99
37	U Oslo	Norway	108.41	604.16
38	U Edinburgh	UK	105.02	267.50
39	Bocconi U, Milan	Italy	100.18	317.44
40	Birkbeck College	UK	99.35	338.16
41	London Business School	UK	96.16	396.67
42	U Helsinki	Finland	91.18	251.99
43	Uppsala U	Sweden	88.41	429.33
44	U Cergy Pontoise	France	87.09	221.67
45	U Zurich	Switzerland	87.00	172.75
46	U Nottingham	UK	86.70	418.81
47	U Munich	Germany	84.23	304.50
48	U Venice (Ca Foscari di Venezia)	Italy	83.14	205.33
49	U College Dublin	Ireland	81.59	260.00
50	Norwegian School Econ and Business Admin	Norway	79.30	471.66
51	U Aarhus	Denmark	77.63	300.73

Table 4. Continued

Rank*	Affiliation	Country	Adjusted pages	Total pages
52	Ben Gurion U	Israel	74.72	216.00
53	European U Institute	Italy	74.71	187.84
54	U Manchester	UK	70.29	313.83
55	DELTA	France	70.05	166.67
56	Free U Berlin	Germany	64.92	222.91
57	U Haifa	Israel	63.22	138.00
58	Keele U	UK	62.70	267.84
59	U Birmingham	UK	61.83	177.40
60	U Groningen	Netherlands	59.23	179.34
61	U Mannheim	Germany	57.68	160.16
62	U Konstanz	Germany	57.67	191.50
63	U Paris X Nanterre	France	55.85	187.50
64	Catholic U Portugal	Portugal	54.63	197.16
65	U Cyprus	Cyprus	53.49	244.00
66	U Torino	Italy	53.24	168.63
67	U Lausanne	Switzerland	52.96	147.33
68	U Bielefeld	Germany	50.97	140.83
69	U Dortmund	Germany	50.23	137.50
70	U Bergen	Norway	49.71	243.75
71	U St Andrews	UK	48.67	84.75
72	INSEAD	France	48.26	186.59
73	Athens U Econ and Business	Greece	48.23	129.17
74	Koc U	Turkey	46.75	113.25
75	U Liverpool	UK	44.20	124.33
76	U Aix-Marseille II	France	40.40	118.18
77	U Basel	Switzerland	39.92	99.00
78	Lund U	Sweden	38.56	203.83
79	U Padova	Italy	36.89	88.17
80	Queen Mary and Westfield College	UK	35.91	143.00
81	U E Anglia	UK	35.73	116.49
82	Catholic U Leuven	Belgium	34.61	154.59
83	U Reading	UK	33.77	149.50
84	CEMFI	Spain	33.30	59.00
85	Copenhagen Bus Sch	Denmark	32.67	171.58
86	St Gallen U	Switzerland	31.60	92.50
87	U Karlsruhe	Germany	31.51	89.00
88	U San Andres	France	31.33	57.00
89	Bilkent U	Turkey	31.08	130.50
90	Technical U Vienna	Austria	29.65	100.33
91	U Umea	Sweden	29.64	157.17
92	U Nova de Lisboa	Portugal	29.35	162.00
93	U Surrey	UK	28.80	126.50
94	Ecole des Hautes Etudes en Sciences Sociales, EHESS	France	28.45	73.67
95	U Rome "La Sapienza"	Italy	28.03	125.75
96	U de Pau and des Pays de l'Adour	France	27.97	52.00
97	Bar Ilan U	Israel	27.33	124.17
98	U Modena	Italy	27.05	102.75
99	U Freiburg	Germany	24.96	84.00
100	U Paris IX Dauphine	France	24.91	51.50
101	CEPREMAP	France	24.82	75.66
102	Imperial College	UK	24.21	145.99

Rank*	Affiliation	Country	Adjusted pages	Total pages
103	U Leiden	Netherlands	23.46	47.33
104	U Linz	Austria	23.21	144.66
105	Aarhus School of Business	Denmark	23.06	100.17
106	U Caen	France	22.84	82.00
107	U Nijmegen	Netherlands	22.48	58.33
108	Cardiff Business School	UK	21.68	63.67
109	ENSAE	France	21.29	22.00
110	U Kent	UK	20.06	87.24
111	U Antwerp	Belgium	19.64	75.00
112	U Glasgow	UK	19.31	105.50
113	U Leicester	UK	18.92	128.83
114	U Mediterranean	France	18.61	49.50
115	U Sussex	UK	18.30	72.67
116	GREMAQ, Institut U France	France	17.90	18.50
117	Queen's U Belfast	UK	17.84	90.50
118	U del Pais Vasco	Spain	17.83	157.50
119	U Newcastle upon Tyne	ÚK	16.95	105.33
120	U Firenze	Italy	16.74	79.83

Table 4. Continued

4. Conclusion

We have conducted a worldwide ranking of academic institutions that produce research in a list of thirty top research journals in economics. Among the principal contributions of the present study is the computation of the ranking of journals for the same period for which we conduct our ranking of institutions. Hence, we do not rely on weights that were computed for research carried out in earlier periods. Updating the ranking of journals to agree with the period over which the ranking of universities takes place avoids possible biases that may arise in journal weights that do not take into account the current trends in the economics profession. We have noted a trend worldwide for a more evenly distributed pattern of academic research in economics. The United States still retains its research dominance in all top groups of institutions, and especially in the top 20. However, European academic institutions are well represented in the remaining group of 180 that make up the top 200 universities in the world and so are universities from Asia and the Far East in particular.

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^{*} Rank is based on impact, age, self-citations and size adjusted pages.

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