

The research output of academic economists in Brazil*

João Ricardo Faria[§]

ABSTRACT

This paper presents productivity rankings of economics departments and economists in Brazil. The results are: 1) At individual level, only 9 out of 506 economists managed to publish at least one paper in the top journals of economics, and 52 economists published at least one paper in a wide list of international journals; 2) The areas in which Brazilian research is most internationally successful are: Development economics, mathematical economics, and post Keynesian economics; 3) There is a remarkable difference in academic quality among the departments; 4) The performance of departments strongly depends on the individual excellence of a very small number of people. These findings suggest that academic productivity in Brazil is poor when evaluated by international criteria. As a policy prescription it is recommended that economics departments in Brazil should establish international publications as a target for their members, and governmental agencies of research should cut the grants of unproductive departments and scholars.

Key words: departmental rankings, economists rankings, role of economists.

RESUMO

O trabalho apresenta *rankings* de produtividade de departamentos de economia e de economistas no Brasil. Os resultados são: 1) no nível individual, somente 9 entre 506 economistas conseguiram publicar pelo menos um artigo em uma revista de economia do primeiro nível, e apenas 52 conseguiram publicar pelo menos um artigo em uma lista ampla de revistas internacionais; 2) as áreas nas quais a pesquisa brasileira tem mais sucesso internacional são: economia do desenvolvimento, economia matemática e economia pós-keynesiana; 3) existe uma grande diferença de qualidade acadêmica entre os departamentos; 4) o desempenho dos departamentos depende fortemente da excelência acadêmica de um reduzido número de pessoas. Estes resultados sugerem que a produtividade acadêmica no Brasil é pobre, quando avaliada por critérios internacionais. Como uma prescrição de política, recomenda-se que os departamentos de economia no Brasil estabeleçam como objetivo para seus membros a publicação no exterior, e que as agências governamentais de pesquisa reduzam recursos para departamentos e pesquisadores improdutivos.

Palavras-chave: classificação de departamentos, classificação de economistas, papel dos economistas.

JEL Classification: A11, D29, I29.

* Este artigo está sendo publicado com a autorização do próprio autor.

§ School of Finance and Economics, University of Technology, Sydney, Australia.

Acknowledgements: I would like to thank, without implicating, J.P. Andrade, J.S. Arbache, F.G. Carneiro, F. Cribari-Neto, J.V. Issler, H. Malmsten, F.M. Menezes, J. G. Resende, A. Sachsida, C. Shikida, E.C.D. Silva, V.G. Silva, and, especially, F. Bastos, M. Leon-Ledesma, S.-J. Lin, M.A.C. Martins, and J. Sánchez-Fung, for valuable discussions and comments. The Data Base used in this study is available at: <http://www.geocities.com/CollegePark/Hall/9643/Index.htm>.

Address for Correspondence: School of Finance and Economics, University of Technology, Sydney, PO Box 123, Broadway, NSW 2007, Australia. Phone: +61-2-9514 7782, fax: +61-2-9514 7711. E-mail: Joao.Faria@uts.edu.au.

Recebido em 02 de fevereiro de 2000. Aceito em 02 de março de 2000.

1 Introduction

The evaluation of academic research is an important tool to monitor and motivate scholars. It provides valuable information about the actual status of academic work, its figures and quality standards, allowing to assess academic productivity. This information is useful to improve work conditions in academia. (Faria, 1998) It is also useful to formulate policies aimed at enhancing scholars' efficiency, as well as assuring fairness in both evaluation and reward of academic achievements. (Hamermesh *et al.*, 1982; Carmichael, 1988) Therefore, it is a step forward to set a meritocratic environment.

This paper analyses the research output of academic economists in Brazil. Over the last decades, academic economists have been quite influential in Brazil. They have occupied major positions in government,¹ and implemented radical economic policies, some of them with disastrous results (e.g., the Cruzado Plan). However, their share of power, social importance, and political influence appear to have no match with their output as scholars. One of the objectives of this study is to investigate the profile of academic economists in Brazil according to international criteria. By inspecting their output with widely used international criteria, we can assess their importance as academics, which could be used to dispute the amount of power they have enjoyed for a long time.

The graduate studies in economics in Brazil, organized by ANPEC (National association of graduate courses in economics), are funded by government grants, no matter if the universities are public or private. This study compares the major economics departments in Brazil, and furnishes a departmental ranking based on publications. Rankings of departments are useful to allocate public grants among the departments. Furthermore, it gives helpful information for prospective students, since their graduate degree carries the reputation of the department. (Graves *et al.*, 1982)

In the same vein, the government finances many researches carried out by academic economists. This paper ranks academic economists by their international publications. Their productivity and achievements are an essential instrument to rank them in terms of objective criteria. The rankings of economists provide a meritocratic way to evaluate and reward them. That is, on the one hand, it decreases monitoring costs, and on the other hand, it increases efficiency and fairness.

1 See the study of Loureiro (1997).

This is a pioneering paper. Its main objective is to initiate a debate on how to measure, evaluate and reward academic achievements. The criteria used here are standard. Brazilian academic departments with graduate courses in economics associated to ANPEC and their members are evaluated according to publications in peer-reviewed international journals. As with any other study of this type, the methodology, results and policy suggestions are quite controversial. However, this is a much needed job in order to set standards for evaluation and reward of academic work in Brazil. This paper should be seen as an initial step towards this aim.

The paper is structured as follows. The next section explains the methodological procedures used in data collection. Section three shows the rankings of departments. Section four presents the rankings of economists. Section five discusses some issues related to the rankings and, finally, the concluding remarks appear in section six.

2 Methodology

In order to construct rankings of economics departments and academic economists based on publications we must pay attention to three important problems. The first is to select a reliable source of information. The second is the selection of a set of journals upon which the rankings will be based. The third is to identify correctly each scholar's publications (see Conroy *et al.*, 1995).

There are several bibliographical sources to obtain data from publications. The most often used and widely accepted dataset in economics is the one elaborated by the *Journal of Economic Literature* (JEL). The main information used in this paper was collected through the **EconLit-AEA** database CD, which is an expanded version of the JEL bibliographic database. The period covered in this study spans for 15 years, the EconLit CD is the one of **1984-1999/06**. It is important to stress that this period covers publications recorded from [approximately] 1983 until early 1999.

As any other source, this database has some problems. For example, many journals are not catalogued in **EconLit-AEA**, while other journals have incomplete records and citations. In order to address these shortcomings we cross-verify the economists' records in EconLit-AEA with the departmental and scholars' web pages whenever available. Actually, when the web pages are complete, they provide more detailed information about publications. Unfortunately just a small number of the departments studied have unabridged home pages.

Concerning the selection of Journals, this paper considers two lists. The first one focuses on a core set of top journals called “**Blue Ribbon**” journals (Dusansky and Vernon, 1998): *American Economic Review*, *Journal of Political Economy*, *Econometrica*, *Journal of Economic Theory*, *Review of Economic Studies*, *Quarterly Journal of Economics*, *International Economic Review*, and *Review of Economics and Statistics*. The lists of journals are based on the frequency with which the articles of a given journal are cited in the published journal articles of others, using the Social Science Citations Index. (Liebowitz and Palmer, 1984) The second list considered in this paper is more flexible and wider than the blue ribbon, and consists of a combination of Fox and Milbourne (1999) list, the list in Table A2 of Laband and Piete (1994), and many high-quality new “specialty” journals. The list used here is shown in the appendix.

In relation to the identification of scholars’ productivity, some caveats are necessary. Firstly, Brazilian names are generally too long, it is not unusual for an author to have two surnames and two given names. There are even cases of three or more surnames. Another important issue is that the surnames are put together with some linking words like *de*, *da*, *e*. Therefore, the search for names in the EconLit-AEA becomes complex. There are cases in which one author appears under three or four different ways, depending on the surnames, link words, and the given names. One illustration can be, Sergio Ribeiro da Costa Werlang, which appears as: Werlang,-Sergio-Ribeiro-da-Costa; da-Costa-Werlang,-Sergio-Ribeiro; Werlang-Sergio. It is easy to see that this is an important source of errors.²

The affiliation of the authors is given by the list of departmental members appeared in November (1999) web pages of the departments. The departments investigated are those that participate in the Anpec Selection Exam of 2000. In total, 20 departments were evaluated: Federal University of Ceará (UFC), Federal University of Minas Gerais (UFMG), Getúlio Vargas Foundation-Rio de Janeiro (FGV-RJ), Getúlio Vargas Foundation-São Paulo (FGV-SP), University of Campinas (Unicamp), Federal University of Rio Grande do Sul (UFRGS), University of São Paulo (USP), Federal University of Pará (UFPA), Federal University of Pernambuco (UFPE), Catholic University of Rio de Janeiro (PUC-RJ), Catholic University of São Paulo (PUC-SP), State University of Maringá (UEM), Federal University of Bahia (UFBA), Federal University of Paraíba (UFPB), Fluminense Federal University (UFF), Federal University of Paraná (UFPR), Federal University of Rio de Janeiro (UFRJ), University of Brasília (UnB), Federal University of Espírito Santo (UFES), and Federal University of Santa Catarina (UFSC). Only 7 centers have relatively

2 As the results of this paper are highly sensitive to missing data. I apologize, in advance, for any inconvenience the results may cause.

complete information about the publications of their members available in their home pages: FGV-RJ, UFC, UFMG, Unicamp, UnB, UFRGS, and UFSC.

3 Rankings of departments

The ranking of economic departments appears in Table 1. The departments are listed in the order of productivity in terms of international publications in the wide list of journals (see the list in the appendix). The first column after the names of the schools gives the number of academic staff for each department. The next column gives total number of papers published by members of the department in the wide list of international journals. This number takes into account co-authorship inside the department. For example, if one paper is published by two co-authors from the same department, to avoid double counting we controlled for co-authorship,³ and just one paper is recorded. The fourth column is the relative productivity per member of the department, it is calculated by dividing the number of international publications by the number of members of the academic staff. The following column shows the number of publications in the Blue Ribbon journals. Finally, the last column is the departmental productivity in relation to the Blue Ribbon journals.

Table 1

Dept.	Staff	Publications	Publ/Staff	Blue Ribbon	B.R./Staff
FGV-RJ	23	48	2.08	13	0.56
PUC-RJ	13	15	1.15	1	0.08
UnB	34	23	0.67	2	0.06
UFSC	19	4	0.21	0	0
UFRJ	85	17	0.20	0	0
FGV-SP	21	4	0.19	0	0
UFF	21	3	0.14	0	0
USP	51	7	0.14	1	0.02
CAEN	13	0	0	0	0
UFMG	11	0	0	0	0
UNICAMP	74	0	0	0	0
UFRGS	17	0	0	0	0
UFPA	14	0	0	0	0
UFPE	21	0	0	0	0
PUC-SP	14	0	0	0	0
UFPR	22	0	0	0	0
UEM	14	0	0	0	0
UFES	9	0	0	0	0
UFBA	19	0	0	0	0
UFPB	10	0	0	0	0

3 When the co-authors are from different departments, the same paper is counted as a paper for each department.

The results in Table 1 are quite appealing. First, it shows that the members of 12 out of 20 departments in Brazil did not publish, over the past 15 years, any paper in the wide list of international academic journals in economics. Second, there is a remarkable difference in quality between the departments. Actually, one can classify the Brazilian departments in five different levels.

The first level is occupied by FGV-RJ alone. By far it is the most productive department in Brazil.⁴ Its average international productivity (considering the wide list) is 80% higher than the second best positioned department, which is PUC-RJ. When one considers the productivity related to the Blue Ribbon list of journals the average productivity of FGV-RJ is 7 times bigger than PUC-RJ. The second level is occupied by the group of departments that have international publications in both lists: PUC-RJ, UnB, and USP. The departments in the third level have international publications in the wide list, but not in the Blue Ribbon Journals: UFSC, UFRJ, FGV-SP, and UFF. The fourth category of departments is the one whose members published papers in international journals that do not appear in the wide list. Finally, the last type of departments is the one whose members have no international publications at all during the period studied.

One should see this classification with caution. By any international standards the profile of FGV-RJ is rather poor if compared with the leading departments in the USA, Canada and Europe. Taking into account the full-time members of FGV-RJ, the average number of years one holds a Ph.D. is 8.8. So, contrasting the average of 2.08 papers with the average number of years from the Ph.D. degree gives 0.24 paper per year. This number drops to 0.06 if one considers the blue ribbon journals.

Another issue has to be stressed here. The evaluation of the departments is highly sensitive to individual members. For example, if the three economists that have published in blue ribbon journals from USP, PUC-RJ, and UnB leave their departments, these departments drop from the second level to the third. The same holds true in relation to the departments in levels three and four. That is, the academic performance of economic departments in Brazil strongly depends on the individual performance as well as on the excellence of a very small number of people.

An interesting picture emerges when one considers the proportion of academic staff that has published in the journals of the wide list. It is a good proxy for the academic synergy

4 The FGV-RJ is the only department in the sample where part-time members are distinguished from full-time faculty. As this information is not available from other departments, all academic staff of FGV-RJ was considered, without distinctions.

inside a department. The motive is simple, when fellows of the same department publish in international journals it generates a healthy internal competition for achievements. It also shows how committed a department is to publications. Finally, it gives an idea of the critic mass available in a department. When many people are trying to publish, a good environment for research and discussion⁵ would probably emerge.

The second column of Table 2 depicts the number of academic staff, while the third column shows the number of academic staff that published at least one paper in the journals of the wide list. The fourth column gives the proportion of the academic staff in the department that published in the journals of the wide list. The table contains only the departments in the three higher levels. As seen in Table 2, the proportion of the academic staff publishing in journals of the wide list is above 50% for just two departments, PUC-RJ and FGV-RJ. At the bottom level this number drops below 10%. This is indicative of the low commitment of the departments as a whole with quality research.

Table 2

Dept.	Staff	St.Pub.	St.Pub./Staff
PUC-RJ	13	9	0.69
FGV	23	12	0.52
UnB	34	9	0.26
UFSC	19	4	0.21
UFRJ	85	9	0.11
FGV-SP	21	2	0.095
UFF	21	2	0.095
USP	51	4	0.078

In order to classify the remaining 11 departments in the levels fourth and fifth, we considered publications in international journals that do not appear in the wide list. The third column in Table 3 depicts the number of international publications in journals that do not appear in the wide list. The majority of these journals are Latin American journals such as *Desarrollo Económico*, *Pensamiento Iberoamericano*, and *El Trimestre Económico*. The last column shows the average productivity of the department in relation to these international publications. The departments classified in the fourth level are: CAEN, UFPE, UFPR, Unicamp, UFPB, UFMG, and UFBA.

⁵ See the interview with Clive Granger (1997) on the importance of academic synergy.

Table 3

Department	Staff	Int.	Int/staff
CAEN	13	5	0.38
UFPE	21	5	0.24
UFPR	22	5	0.23
UFPB	10	2	0.20
UNICAMP	74	13	0.18
UFMG	11	2	0.18
UFBA	19	1	0.05

Finally, Table 4 presents the departments whose members did not publish any international paper during the period considered. In order to classify them we considered the publications in the main economic journals in Brazil: *Revista Brasileira de Economia*, *Pesquisa e Planejamento Econômico*, *Revista de Econometria*, *Revista de Economia Política*, and *Estudos Econômicos*. Notice, however, that the records of these journals in Econ-Lit are not complete.

Table 4

Dept.	Staff	Nat	Nat/staff
PUC-SP	14	8	0.57
UFRGS	17	9	0.53
UEM	14	3	0.21
UFES	9	1	0.11
UFPA	14	1	0.07

One can note that on the top levels of academic productivity (levels one and two) there are 2 private schools (FGV-RJ and PUC-RJ), one state university (USP) and one federal university (UnB). On the bottom level (level five) there is one private university (PUC-SP), one state university (UEM) and three federal universities (UFRGS, UFES, and UFPA).

4 Rankings of economists

The literature generally classifies researchers in economics and econometrics by the impact of their work, captured through citations of their works in academic journals (see Medoff, 1989; Hall, 1990; and for Brazil see Azzoni, 1998). The rankings presented below

are productivity rankings. The economists are classified according to their productivity, not by the impact of their work.

Table 5 below presents the ranking of the Brazilian economists actually working in one of the 20 departments analysed that have published in the Blue Ribbon journals. The total number of academic economists considered in this paper is 506, and only 9 economists have published papers in these top journals. That is, less than 2% of Brazilian academic economists published in the Blue Ribbon journals over the last 15 years.

Table 5

Name	Dept.	B.R.	Journals
Aloisio Pessoa de Araujo	FGV-RJ	5	3-Econometrica,2-JET
Sergio R.da Costa Werlang	FGV-RJ	5	4-JET,1-Econometrica
Marilda Sotomayor ⁶	UFRJ and USP	4	1-JPE, 2-JET, 1-Econometrica
Carlos Martins Filho	FGV-RJ	2	2-Int. Econ.Review
Paulo Cesar Coutinho	UnB	2	1-JET, 1-Rev. Econ. Studies
Paulo Klinger Monteiro	FGV-RJ	2	2-JET
Ilan Goldfajn	PUC-RJ	1	QJE
Juan Hersztajn Moldau	USP	1	JET
Maria C. T Terra	FGV-RJ	1	QJE

If we include more leading journals in this Blue Ribbon list, such as *Rand Journal of Economics*, *Journal of Monetary Economics*, *Economic Journal*, *Journal of Finance* and *Journal of Econometrics*, just more three economists will join the list: João Victor Issler (FGV-RJ), that published one paper in the *Journal of Monetary Economics* and Naércio Menezes Filho (USP) and Gustavo Franco (PUC-RJ) that published one paper each in the *Economic Journal*. It is evident that this ranking would be modified by the inclusion or exclusion of journals in the list. Scott and Mitias (1996), for example, have considered a set of 36 journals, and a core list of just five journals. If we have followed their procedure the rankings presented here would be totally distinct.

One important characteristic of table 5 is that 10 out of the 21 papers [there are two papers in which P.K. Monteiro and A. Araujo are co-authors] - that is 47% - were published

⁶ The output of Marilda Sotomayor was not considered in the output of UFRJ or USP. Actually her name does not appear in the Web pages of the economics departments of UFRJ or USP.

in *Journal of Economic Theory*, and 5 in *Econometrica*, that is 23%. 14 papers were produced with co-authors, 11 with at least one foreigner⁷ co-author. There are 17 papers on Mathematical Economics and Microeconomics; 2 papers on Macroeconomics, and 2 papers on Econometrics. Another remarkable characteristic of this production is that there are no papers in the *American Economic Review*.

From the 9 economists in Table 5, 5 obtained their Ph.D. in a top American University: MIT, Berkeley, Pennsylvania, with one, and Princeton with 2. Other two also graduated in the U.S. (Vanderbilt and Tennessee), and two in Brazil (IMPA). From these top economists, A. Araújo has a Ph.D. in Statistics, M. Sotomayor has a Ph.D. in Mathematics, and Paulo K. Monteiro a Ph.D. in Mathematical Economics.

A total of 52 academic economists in Brazil published at least one paper in the journals of the wide list. It is approximately 10% of Brazilian economists considered in our sample. The journals in the wide list that published most of the Brazilian economists' papers are: *Journal of Mathematical Economics*, *Journal of Development Economics* (JDE), *Journal of Post Keynesian Economics* (JPKE), and *World Development* (each one with more than 8 papers of Brazilian authors). These publications are highly indicative of what type of research academic Brazilian economists are more likely to supply internationally: Mathematical economics, development economics and post Keynesian economics.⁸

Table 6 presents the ranking of the 24 more productive Brazilian academic economists actually working in one of the 20 departments analysed,⁹ it accounts the ones that published at least more than one paper in the journals of the wide list. *It should be stressed that the weight of the journals is the same.* This is a controversial assumption, however, in this

7 Foreigners working at the Brazilian economics departments were considered "Brazilian" economists as well. So, a foreign author in the present context means someone working outside Brazil.

8 Notice that mathematical economics is strongly influenced by Paulo K. Monteiro's production, while at the Post-Keynesian front Fernando Cardim de Carvalho is the leading economist. Only in development economics we find a more even distribution of authors.

9 Notice that there is a number of productive economists outside the 20 departments studied. In particular they are linked to department of statistics of some universities.

ranking we are measuring just quantity and not quality of the publications. Any other ranking with different journals' weights would produce a quite different picture.¹⁰

One important measure that helps to assess academic productivity is the number of papers published since the author took the Ph.D. degree. The absolute number of publications without controlling by the number of years from the Ph.D. degree bias the result towards the older economists. Looking at the top 11 economists of the list, the average number of years they took the Ph.D. degree is 11. The average number of international papers published by the top 11 is above 6, so the average number of papers per year after the Ph.D. is above 0.5. Therefore, in average, these economists have managed to publish a paper in one of the international journals of the wide list every two years.¹¹

The affiliation of the top 11 economists is: 5 from FGV-RJ, 3 from UnB, one from PUC-RJ, and one from UFRJ.¹² 6 out of these 11 economists graduated in the U.S., 3 in England and two in Brazil. Among the top 11, 3 graduated in top American Universities (Princeton, Berkeley and MIT), and one in a top British University (Cambridge). IMPA and the University of Kent at Canterbury in England have two former graduate students each in the top eleven economists. One noticeable absence from the rankings is that there is no economist graduated in Harvard or Yale, and no economist graduated outside the U.S., Brazil and England as well.

Finally, there are 79 women among the 506 economists analysed, 15% of the total. There are two women in the 9 economists that published in the Blue Ribbon journals, that is 22 %, so women are over-represented among these economists. There is one woman among the 11 most productive economists (9 %), and 3 women among the top 24 most productive economists (12.5%), i.e., women are under-represented among the most productive economists.

10 See, for example, Cribari-Neto et al (1999) where the publications are adjusted for the quality of journals. In their case just 11 journals were considered. In the present study, there are more than 100 journals in the wide list of journals, any type of weight system imposed on this list is necessarily controversial.

11 Another important issue concerns the average time to get one paper accepted and published in economic journals. The variance is huge. There are journals that take a few months to reach a decision while there are others that take at least a couple of years.

12 Actually, FGV-RJ has hired many of their productive members over the last couple of years. Araújo and Monteiro used to be at IMPA, and many other young members of FGV-RJ staff have been "repatriated" from all over the world. In relation to M. Sotomayor, see footnote 6.

Table 6

Nome	Dept.	Ph.D.	Country	Publicat.
Paulo Klinger Monteiro	FGV-RJ	IMPA	Brazil	18
Aloisio Pessoa de Araujo	FGV-RJ	Berkeley	USA	10
Sergio R.da Costa Werlang	FGV-RJ	Princeton	USA	9
Fernando Cardim de Carvalho	UFRJ	Rutgers	USA	7
Marilda Sotomayor	UFRJ-USP	IMPA	Brazil	6
Carlos Martins Filho	FGV-RJ	Tennessee	USA	5
Ilan Goldfajn	PUC-RJ	MIT	USA	5
Joanilio R. Teixeira	UnB	Kent	UK	5
Mauro Boianovsky	UnB	Cambridge	UK	5
Flavio Marques Menezes	FGV-RJ	Illinois	USA	5
Francisco G. Carneiro	UnB	Kent	UK	4
Luiz C. Bresser Pereira	FGV-SP	USP	Brazil	3
Maria C. T Terra	FGV-RJ	Princeton	USA	3
Naercio Menezes Filho	USP	Univ.College	UK	3
Renato G. Flores Junior	FGV-RJ	UFRJ	Brazil	3
Armando Castelar	UFRJ	California	USA	2
Carmen V.C. Feijo	UFF	Londres	UK	2
Helson C. Braga	UFRJ	FGV-RJ	Brazil	2
Juan Hersztajn Moldau	USP	Vanderbilt	USA	2
Marcio Gomes Pinto Garcia	PUC-RJ	Stanford	USA	2
Marco A. C. Bonomo	FGV-RJ	Princeton	USA	2
Renato Baumann	UnB	Oxford	UK	2
Ricardo Paes de Barros	PUC-RJ	Chicago	USA	2
Paulo Cesar Coutinho	UnB	Pennsylvania	USA	2

5 Discussion

There is always controversy around rankings. The rankings presented and analysed in this paper are not free of criticisms. It is relatively uncontroversial in economics research that only refereed publications be included in measures of research output, and that there is a strong quality hierarchy in journal publications. However, on the border of the journals' lists there is always room for discussion of what journals must be taken into consideration. Therefore, the list used here should be seen as a tentative one, further discussion is necessary to set a consensual list.

This paper makes a strong case for the setting of objective standards to evaluate and reward the research output of Brazilian academic economists. The benchmark put forward

here is to assess the productivity of researchers through publications in peer-reviewed international journals of the economics profession. From the rankings shown above there is an important lesson to be learned: The academic research output of the main Brazilian departments of economics is pretty low when international criteria are taken into account. It is important to note that we have considered only the departments that have graduate studies in economics. That is, the top departments in Brazil. The graduate courses in these departments are bounded and ruled by ANPEC, an association that has set high standards to select graduate students of economics.

There are many causes to blame for this poor performance. Here we discuss two types of causes. One related to the peculiarities of the Brazilian research output, and its access to the international arena, and another set of issues related to the institutional incentives to do research in Brazil.

Many might argue that, in Brazil, academic economists engage themselves in applied work pertaining to the country's specific characteristics rather than theoretical contributions, which may have little relevance to the developing countries. Another line of argumentation is that many economists in Brazil do not follow the mainstream in economics and, therefore, their research is less likely to be accepted and published in international journals. According to both views, there is an incentive for Brazilian authors to publish their research in domestic journals or Latin American journals.

This argument loses some of its strength when we consider that there are many international journals available on applied, development and non-mainstream economics (in the journals' list below there are 20 journals, 15% of total, that publish this kind of research). Furthermore, an international journal published in English has a much wider audience and penetration, and is relatively free from club effects. In a small academic world, social networks and personal contacts are valuable assets to guarantee publication. In this vein, an international journal is more likely to evaluate a contribution on pure meritocratic and objective way than a domestic journal.¹³

Another sort of argument stresses the weak network links between Brazilian authors and the leading journals. To improve the chances of papers being accepted and published in an international leading journal, it is necessary to present and discuss them widely around the world, mainly in the top economics departments in the world and prestigious economics

¹³ However, there are exceptions, given that some papers published by Brazilian authors in the journals considered were invited papers. By definition an invited paper, even when refereed, does not go through the same procedures used for ordinary papers.

meetings. In order to publish in the leading journals, as the argument goes, it is necessary a wide network with editorial boards of the journals, leading international departments and presence in the main international meetings in economics. In general, the Brazilian presence in the international stage is meagre. In fact, the absence of Brazilian economists in the editorial boards of the main international journals is noticeable. In this sense, brain drain of Brazilian economists by the main centers of economics in the U.S. and Europe may contribute to decrease this gap and build new networks.

One could argue that the opportunity cost of an academic economist in Brazil is extremely high. As a country relatively poor in human capital, a Ph.D. in economics has plenty of opportunities to make money out of the academy. This is correct, moreover when we think about the way academic salaries are established. Most of the departments considered here are in public universities, 13 in federal and 3 in state universities. In public universities academic salaries are set according to the position and not to the researcher. There is no individual negotiation, so there are no financial incentives to reward research according to academic productivity.¹⁴ The main way to get promotion in a public university career in Brazil is through seniority. One solution to this problem would be the flexibilization of the academic market in Brazil. The end of wage isonomy among public universities and the establishment of negotiable salaries in an individual basis.

Another problem that plagues economics departments in Brazil is the rent seeking behavior of some of its members. Many economists follow a university career to get access to public and private consultancies, given the reputation that is attached to a university position. On the one hand consultancies can decrease research output because it trades-off the time available to do research with that devoted to do consultancy. On the other hand, however, consultancies can have a positive spillover effect on research by providing new problems and suggesting new methods, techniques and ideas. The implementation of objective academic standards to evaluate research output and the demand for international quality of this research are in general useful to fight against the rent seeking behavior in academia. (Faria, 2000)

The policy prescriptions suggested here are very simple, and can be summarized in a nutshell: Economics departments in Brazil should establish international publications as a target for their members. This rule is able to increase the productivity of the department as a whole and, at the same time, force all members to increase their individual output in terms

14 Just recently USP has been rewarding international publications. In the case of private institutions, FGV-RJ and PUC-RJ, have also given monetary incentives to foster international publications.

of quantity and quality. Obviously, a sort of punishment for not following the rule has to be implemented as well. In this sense, Brazilian research agencies (such as CAPES and CNPq) should cut the grants of unproductive departments and scholars. If this rule is implemented it will certainly decrease the distance among departments, and, inside each department, the relative distance among peers. Furthermore, it will bring some homogeneity in quality among academic economists in Brazil. The final goal is to decrease the disparities at departmental and individual levels identified in this study.

6 Concluding remarks

This paper has shown rankings of academic departments and economists for Brazil. The rankings were built considering the research published in international refereed journals. 20 of the most prestigious academic departments were evaluated, and the production of 506 economists was assessed through the EconLit-AEA database over the last 15 years, from approximately 1983 to early 1999.

Some important results emerge from this study. At the individual level, only 9 out of 506 economists actually working in an economics department in Brazil have managed to publish at least one paper in the top journals of economics. Considering the wide list of international journals, a total of 52 academic economists published at least one paper in these journals. The areas in which Brazilian research is most internationally successful are: Development economics, mathematical economics, and post Keynesian economics.

At the departmental level, the academic performance of economic departments in Brazil depends strongly on the individual performance and excellence of a very small number of people. Second, there is a remarkable difference in academic quality among the departments. We can divide 5 different levels of excelency. On the top of productivity level is Fundação Getúlio Vargas of Rio de Janeiro. In the second level comes: PUC-RJ, UnB and USP. While UFSC, UFRJ, FGV-SP and UFF occupy the third level.

Overall, the figures showed in this study suggest that academic productivity in Brazil is poor when evaluated by international criteria. The policy prescription suggested here is that economics departments in Brazil should establish international publications as a target for their members, and Governmental agencies of research should punish unproductive departments and scholars by cutting their grants.

References

- Azzoni, C. R. 'Clássicos' da literatura econômica brasileira: Trabalhos e autores mais citados nas nossas revistas acadêmicas. *Economia Aplicada*, v. 2, n. 4, p. 772-780, out.dez. 1998.
- Carmichael, H. L. Incentives in academics: why is there tenure? *Journal of Political Economy* 96, p. 453-472, 1988.
- Conroy, M. E., Dusansky, R., Drukker, D. and Kildegaard, A. The productivity of economic departments in the U.S.: publications in the core journals. *Journal of Economic Literature* 33, p. 1966-1971, 1995.
- Cribari Neto, F., Jensen, M. and Novo, A. Research econometric theory: quantitative and qualitative productivity rankings. *Econometric Theory* 15, p. 719-752, 1999.
- Dusansky, R. and Vernon, C. J. Rankings of U.S. economics departments. *Journal of Economic Perspectives* 12, p. 157-170, 1998.
- Faria, J. R. The economics of witchcraft and the big eye effect. *Kyklos* 51, p. 537-546, 1998.
- _____ Rent seeking in academia: the consultancy disease. *The American Economist*, 2000, forthcoming.
- Fox, K. J. and Milbourne, R. What determines research output of academic economists? *Economic Record* 75, p. 256-267, 1999.
- Granger, Clive The ET interview: Professor Clive Granger. *Econometric Theory* 13, p. 253-303, 1997.
- Graves, P. E., Marchand, J. R. and Thompson, R. Economics departmental rankings: research incentives, constraints, and efficiency. *American Economic Review* 72, p. 1131-1141, 1982.
- Hall, A. Worldwide ranking of research activity in econometrics: an update 1980-1988. *Econometric Theory* 6, p. 1-16, 1990.
- Hamermesh, D. S., Johnson, G. E. and Weisbrod, B. A. Scholarship, citations and salaries: economic rewards in economics. *Southern Economic Journal* 49, p. 472-481, 1982.
- Medoff, M. H. The rankings of economists. *Journal of Economic Education* 20, p. 405-415, 1989.
- Laband, D. N. and Piete, M. J. The relative impacts of economics journals: 1970-1990, *Journal of Economic Literature* 32, p. 640-666, 1994.

Liebowitz, S. J. and Palmer, J. C. Assessing the relative impacts of economics journals. *Journal of Economic Literature* 22, p. 77-88, 1984.

Loureiro, M. R. *Os economistas no governo*. Rio de Janeiro: FGV Editora, 1997.

Scott, L. C, and Mitias, P. M. Trends in rankings of economics departments in the U.S.: an update. *Economic Inquiry* 34, p. 378-400, 1996.

Appendix

List of Journals

American Economic Review	Journal of Economic Education
American Journal of Agricultural Economics	Journal of Environmental Economics and Management
Annals of Regional Science	Journal of Finance
Applied Economics	Journal of Financial and Quantitative Analysis
Applied Financial Economics	Journal of Financial Economics
Australian Economic Papers	Journal of Health Economics
Brookings Papers on Economic Activity	Journal of Human Resources
Bulletin of Economic Research	Journal of Industrial Economics
Cambridge Journal of Economics	Journal of Institutional and Theoretical Economics
Canadian Journal of Economics	Journal of International Economics
Carnegie-Rochester Conference Series on Public Policy	Journal of International Money and Finance
Computational Economics	Journal of Labor Economics
Constitutional Political Economy	Journal of Labor Research
Econometrica	Journal of Law and Economics
Econometric Reviews	Journal of Macroeconomics
Econometrics Journal (*)	Journal of Mathematical Economics
Econometric Theory	Journal of Monetary Economics
Economica	Journal of Money Credit and Banking
Economic Development and Cultural Change	Journal of Political Economy
Economic History Review	Journal of Policy Modeling
Economic Inquiry	Journal of Post Keynesian Economics
Economic Journal	Journal of Productivity Analysis
Economic Modelling	Journal of Public Economics
Economic Record	Journal of Public Economic Theory (*)
Economics Letters	Journal of Risk and Uncertainty
Economic Theory	Journal of the American Statistical Association
Empirica	Journal of the Royal Statistical Society (All Series)
Energy Journal	Journal of Urban Economics
European Economic Review	Kyklos
European Journal of Political Economy	Labour Economics
European Journal of the History of Economic Thought	Land Economics
Explorations in Economic History	Macroeconomics Dynamics
Fiscal Studies	Manchester School
Games and Economic Behavior	Mathematical Finance
Geneva Papers on Risk and Insurance Theory	Mathematical Social Sciences
History of Political Economy	Metroeconomica
IMF Staff Papers	National Tax Journal
Industrial and Labor Relations Review	NBER Macroeconomics Annual
International Economic Review	Oxford Bulletin of Economics and Statistics
International Game Theory Review (*)	Oxford Economics Papers
International Journal of Game Theory	Public Choice
International Journal of Industrial Organization	Quarterly Journal of Economics

Japanese Economic Review	Rand/Bell Journal of Economics
Journal of American Statistical Association	Review of Income and Wealth
Journal of Applied Economics	Regional Science and Urban Economics
Journal of Applied Econometrics	Research in Economics
Journal of Banking and Finance	Review of Development Economics
Journal of Business	Review of Economic Design
Journal of Business and Econ. Statistics	Review of Economic Dynamics (*)
Journal of Comparative Economics	Review of Economic Studies
Journal of Development Economics	Review of Economics and Statistics
Journal of Development Studies	Review of International Economics
Journal of Econometrics	Scandinavian Journal of Economics
Journal of Economic Behavior and Organization	Scottish Journal of Political Economy
Journal of Economic Dynamics and Control	Social Choice and Welfare
Journal of Economic Growth	Southern Economic Journal
Journal of Economic History	Structural Change and Economic Dynamics
Journal of Economic Literature	Studies in Nonlinear Dynamics and Econometrics
Journal of Economic Perspectives	Theory and Decision
Journal of Economics	Weltwirtschaftliches Archiv
Journal of Economic Theory	World Development

(*) Brand new journals, not recorded yet in the EconLit-AEA.

