

# TEACHING AND TRAINING

## where is knowledge generated? on the productivity and impact of political science departments in latin america

*david altman*

Universidad Católica de Chile Campus San Joaquín, Avenue Vicuña Mackenna 4860,  
Santiago de Chile, Chile  
E-mail: daltman@uc.cl

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### **Abstract**

Clear rules that encourage meritocracy, and that include the evaluation of scholarly productivity, are slowly and unevenly taking hold in academic life in Latin America. While some countries have official rankings of political science departments, others rely only on informal assessments. In a third set of countries, we cannot even consider the competition because the market is dominated by a state monopoly. This article provides a first, systematic study of scientific productivity and concomitant impact in more than twenty departments of Political Science and International Relations in the region. I show that scholars' productivity is intimately related to where they pursued graduate studies, what subfield of research they work on, and the explicit adoption of rules that encourage meritocracy and academic careerism.

**Keywords** bibliometric performance indicators; research assessment exercise; Latin American political science departments; rules towards meritocracy

**S**tudying the practices of political science, what is sometimes called science studies, is a burgeoning area of research in political science.<sup>1,2</sup> Evaluating the quality of political science programmes constitutes an objective of capital importance but, simultaneously, a challenge of great complexity. While

departments of political science and international relations (IR) have always competed both nationally and internationally, quantitative assessments of the relative strength of these departments is novel when political science is considered as a global enterprise, and important for both the supply and demand sides.

From the demand side, the market is pushing departments to compete for students and research resources, whereas from the supply side, contributors (governments, NGOs, International nongovernmental organizations, International financial institutions, among others) want, and sometimes even need, to know exactly where to invest and to have some idea about the effectiveness of the resources they allocate. However, developing quantitative assessments is a complex endeavour because the very concept of *quality* is multidimensional. It includes, for example, determining whether programme 'a' is better than programme 'b' in job-placement, whether an international foundation should be financing a specific project 'x' instead of 'y', evaluating if a candidate coming from one university is substantially better prepared than a candidate from another university, or if a department is stronger than another in terms of scientific production and impact.

This paper examines the scientific production and impact of scholars working in political science departments in Latin America, that is, only one among several crucial aspects related to quality. Thus, I do not offer an overall ranking of department quality. But this more limited exercise is worthy nonetheless. Despite some advances in the development of quantitative assessments of departments in the United States and Western Europe, Latin America still lags far behind in these types of measurements. Moreover, as I show, although some of the methods and standards developed in the context of universities in the United States and Europe serve as a useful point of reference, these quality measures cannot be automatically extrapolated to Latin America. Thus, this paper actually starts to fill a significant lacuna by taking the very first steps in systematizing departmental strength in Latin America in terms of the

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scientific productivity of political science programmes.

This paper proceeds as follows. First, I define the object of analysis and the selection criteria for departments. I then provide a general picture of the twenty-one departments included in the analysis in terms of academically related aspects. Third, I study departmental production and the impact of scientific research. Finally, I address some of the reasons behind the enormous differences in level of productivity and magnitude of research impact. I conclude by suggesting directions for future research.

## **DEFINING THE OBJECT OF STUDY AND SELECTION CRITERIA**

Academic departments are groups of individuals who work together within the limits of a discipline with shared objectives. Yet, each member of a department also stands on his or her own with individual 'value', prestige, and a portfolio of materials that are personally attached to him or her, and this portfolio travels with that individual from place to place. The calibre of the portfolio may help in the negotiation of status improvements (e.g. from associate to full professorship), salary increases, teaching loads, or simply when bargaining for better opportunities in other places. Measuring the value of this portfolio is a controversial endeavour. As individual academics, we each weigh scholastic portfolios in differing

ways and, most likely, these weights also vary from department to department, and from country to country. This paper, however, does not assess the calibre of each individual's portfolio, but rather, it considers the collective quality of all members' portfolios in a given department. The central idea here is to evaluate departmental strength regardless of disparities across individuals within departments.

For this research, I start by considering only departments of political science or IR in Latin America that have more than five fully-employed scholars in countries where national competitive funds are available for the academic community in order to advance research in the discipline. Though these criteria seem quite generous, dozens of departments on the continent fall short of meeting them. This first, pre-selection, criterion is based on the disciplinary X-ray performed by the special volume of *Revista de Ciencia Política* in 2005, and just seven countries fulfil this criterion (Argentina, Brazil, Chile, Colombia, Mexico, Uruguay, and Venezuela).<sup>3</sup> My hope was to include all the departments in these countries, but data was not available for all of them, particularly for Venezuelan units.<sup>4</sup> Thus, in cases where no official ranking was available, I relied on colleagues' assessments for selecting the top departments in each country. The units included here account for a relevant sample of Latin America's disciplinary universe.

Defining the limits of a department is rather a complex task. Unlike the departments in the so-called 'First World', many units in Latin America hire people on a part-time basis (most often seen in public schools in Argentina and Uruguay). Yet, with the help of online data, heads of departments, and colleagues, I have identified individuals that have full dedication, albeit sometimes, not exclusive to their institutes. In future research, I expect to include more departments as

information becomes available. Data presented in this paper are accurate up to the end of the year 2008, and were collected during the month of June 2009. In the Appendix, descriptive statistics are found in regard to basic demographic and academic departmental information (Table 1).

## HOW TO MEASURE SCIENTIFIC PRODUCTION AND IMPACT?

The main method for ranking departments in political science in the US has been through *peer evaluations*. The problem with this type of evaluation is that it lends itself to subjectivity and, as Hix notes, is 'biased towards established institutions' (Hix, 2004), often referred as the 'halo-effect'. Thus, we should find 'objective' measures for ranking. The dilemma arises when trying to establish the most objective criteria to weigh the quality of political science programmes. What criteria should we consider? The list is seemingly infinite, but one could very well consider the number of full-time professors with Ph.D.s in a department, the amount and quality of publications in blind peer-reviewed journals, or the types of publications (books, articles, notes in newspapers, etc). At this point I have gathered data regarding the productivity of scholars, but have left aside admittedly crucial criteria in the evaluation of a department, including success in attaining competitive research funds, or the success of students on the market, among others. Surely, a complete study of these criteria falls beyond the scope of this paper.

One of the primary objectives of this paper is to offer statistics that are easily updatable. Thus, I decided this research should be based on two ISI-Web of Knowledge (WoK) databases: the Social Sciences Citation Index and

**Table 1: Departments included in the analysis**

Country	University	Department	Acronym
Argentina	Universidad de Buenos Aires	Ciencia Política	UBA
	Universidad de San Andrés	Ciencia Política	SanAndres
	Universidad Nacional de San Martín	Escuela de Política y Gobierno	UnSaM
	Universidad Torcuato di Tella	Departamento de Ciencia Política y Estudios Internacionales	UTDT
Brazil	Universidade Cândido Mendes	Instituto Universitário de Pesquisas do Rio de Janeiro	IUPERJ
	Pontifícia Universidade Católica do Rio de Janeiro	Instituto de Relações Internacionais	PUC-RIO
	Universidade Federal de Minas Gerais	Departamento de Ciência Política	UFMG
	Universidade Federal do Rio Grande do Sul	Ciência Política	UFRGS
	Universidade Estadual de Campinas	Departamento de Ciências Políticas	UNICAMP
	Universidade de São Paulo	Departamento de Ciência Política	USP
Chile	Pontificia Universidad Católica de Chile	Instituto de Ciencia Política	PUC
	Universidad de Chile	Instituto de Estudios Internacionales	UChile (IR)
	Universidad de Chile	Departamento de Ciencia Política	UChile (PS)
	Universidad Diego Portales	Escuela de Ciencia Política	UDP
Colombia	Universidad de Los Andes	Departamento de Ciencia Política	Los Andes
Mexico	Centro de Investigación y Docencia Económicas	División de Estudios Internacionales	CIDE (IR)
	Centro de Investigación y Docencia Económicas	División de Estudios Políticos	CIDE (PS)
	El Colegio de México, A.C	Ciencia Política	COLMEX
	Instituto Tecnológico Autónomo de México	Departamento de Estudios Internacionales	ITAM (IR)
	Instituto Tecnológico Autónomo de México	Departamento de Ciencia Política	ITAM (PS)
Uruguay	Universidad de la República	Instituto de Ciencia Política	UdelaR

the Arts & Humanities Citation Index. Each of these databases can account for literally thousands of journals. And,

though these databases have a selection bias, in that US and UK journals are over-represented, I assume that this bias is

roughly the same for all Latin American scholars.

I am acutely aware that different traditions in presenting or publishing scientific research coexist in political science departments in Latin America. Indeed, many would argue that the WoK criteria contain an ethnocentric bias favouring the North, and in particular, English language journals.<sup>5</sup> Therefore, it is worthwhile to seek other types of criteria that may assess the real production of political science scholars. Also, many argue that in the South, scholars tend to publish more books and chapters than journal articles. To get at these questions, I also used *Publish or Perish* software, a system that retrieves and analyzes academic citations among a wide range of sources.<sup>6</sup>

While Google Scholar includes more citations than WoK, the stability of results is notably inferior. In contrast, WoK has a smaller citation scope but it tends to be much more accurate.<sup>7</sup> In any case, as expected, the overall amount of citations of scholars is statistically significant between the WoK's entrances and the *H*-index impact of scholars' productions (R coefficient 0.55, sig. 0.000). Given the nature of both indices and the deficiencies of the raw databases' uses for the purposes of calculating them, I adhere to WoK, given that it is cleaner, more reliable, and provides a better idea of quality.<sup>8</sup>

## MEASURING PRODUCTION AND IMPACT

Publishing an article can take several years from the time an author sends the first version until it is published (even up to 3 years). This very obvious fact forces my endeavour to broaden the time span under scrutiny; otherwise I might be leaving aside very productive scholars. I assume that each author worked proportionately to the number of authors

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on a particular piece; in a co-authored paper by two, each author receives 0.5 of a point. If the paper had three authors, each receives 0.33 of a point.<sup>9</sup>

As I also want to draw an overall score for each department *today*, I decided to weight an article that appeared in the last 2 years differently from one published 9 years ago. I am well aware that this operationalization could be contested. From this perspective, we could easily ask how Harvard's Department of Government would rank if we only take into consideration publications after the year 2000. In other words, what is the value that this department has within its ranks with scholars such as Putnam, Mansbridge, or even Huntington years ago? Though any arbitrary particular weighting would be highly debatable, and much more work is needed on the subject to have a more solid basis for assigning weights, we have to start somewhere and this proposal is aimed simply to begin the discussion.

Additionally, social scientists know that the impact of an article is not always immediate, and in general the impact of an article extends a relatively long period in our discipline.<sup>10</sup> Moreover, scientific productivity is not immediate, but rather, a cumulative process including the creation of a reputation and confirmation of the relevance of the research. No doubt, including very old items can give a distorted view of the current status of a department, but overweighting the most recent articles can also generate a distortion in terms of confirming the

soundness of the departments. Whether this weighting is justified or not, should be eventually determined by empirical data.

Another important factor is the quality of a publication. It could be argued that there is a strong difference between publishing in journal A instead of journal B because of its standards of entrance, impact factor, etc. The impact factor of a journal comes from the average number of citations its articles receive over a specific period. Thus, while the overall impact factor of each journal is not taken into account, the number of citations each piece receives is closely related to the importance of the journal where the considered article was published. Thus, simply by the fact that an article is published in *American Political Science Review* (as one of the most important journals in the discipline), it will receive – *Ceteris paribus* – more citations than an article published in, for example, *Dados*.

The problem of measuring quality is even larger, given that the WoK has recently added many journals (e.g. the *European Political Science*). Therefore, as time is necessary to generate statistics, such as the impact factor, their impact cannot be measured. Although reputational measures of journal quality could be used (e.g. Giles and Garand, 2007), to my knowledge, subjective assessments of quality of journals do not exist beyond the industrial north. As assessing the levels of 'quality' myself would be highly controversial, I refrain from doing so.

There is at least one more predictor of scholarly productivity and impact that should be acknowledged: publishing at an in-house WoK-indexed journal. As is the case with Centro de Investigación y Docencia Económicas (CIDE) (*Política y Gobierno*) and Pontificia Universidad Católica de Chile (PUC) (*Revista de Ciencia Política*), among others, this endogamic

probability may have a favourable impact on the indicators and it is only fair to factor it in. However, the truth is that nobody requests this standard in the 'developed' north, and why would we infer that Latin American ISI journals favour in-house publications with 'friendlier' standards of acceptance? No piece in the literature discounts The City University of New York faculty for publishing in *Comparative Politics*, or Princeton faculty at *World Politics*, or the University of Washington faculty at *Comparative Political Studies*. To the contrary, faculty members of these departments tend to be strongly discouraged from sending their work to 'their' journals. And, if this is correct, they face a handicap in comparison with other colleagues from departments without WoK-journals because they have fewer outlets for their work. Until we know the actual influence of having an in-house ISI-Journal in publication (positive or negative), it would be entirely *ad hoc* to simply punish Latin American scholars for publishing with in-house journals. Clearly, this is an interesting issue, but beyond the scope of this research.

In order to weight production and impact I chose to smoothly decrease the value of works published as time has elapsed since publication. Thus, if a paper was published in the last 2 years (2008 or 2007) it values 1, then each year moving backwards loses 10 per cent of the complete value. For example, an article published in 2005, receives a value of 0.8. This exercise is performed for every person included in the database (more than 300). For measuring the impact of each piece of scholarship, the procedure is basically the same as above. Each paper's citations (*excluding self-citations*) are divided by the number of authors.<sup>11</sup>

It is expected that a scholar wants not only to produce, but also that the product will have an impact on scientific endeavours and be relevant (i.e. cited). A

scholar that produces a lot, but whose works are rarely cited would have a lower scientific 'calibre' than the one that produces less, yet whose works are cited often. The question is how to assess the overall calibre of a given scholar in terms of her productivity and impact (and by extension, that of her department). To capture these bi-dimensional objectives, I propose a simple but powerful measure that multiplies the number of publications by impact. The multiplicative process provides a telling 'picture' of the scholar's scientific production, her 'area of scientific research'.<sup>12</sup>

There is a delicate equilibrium here; and in order to give a sense of each department's productivity and impact, I calculate what could be called the *departmental area of scientific research*, which is the product of the amount of production and the impact this production has by department. In a way, this index punishes tendencies at both extremes: on the one end, there are departments where scholars publish a lot, but their work is rarely cited; at the other end of the spectrum, there are departments with a few influential works but with low average per capita production, per annum.

The departmental 'area' of scientific research is the result of adding the individual 'area of scientific research' of all fulltime professors in that department. Table 2 provides aggregates for each department and summarizes departments by *Weighted Per Capita Area of Scientific Research*. This measure approximates an index; yet, it should be noted that this is not an overall ranking of departments of political science and IR. It is simply a proxy for the 'Weighted Per Capita Area of Scientific Research', nothing more.

## WHY SUCH DIFFERENCES?

No assessment has yet been provided on the potential main predictors of scholar

productivity and concomitant impact. This section aims to provide a rough study on this topic. First, I recognize that there are two critical variables that are hitherto not included in this study but are likely to have a tremendous impact on assessing productivity of scholars. The first touches on the standards for advancement for an academic career in each department; the second corresponds with direct subsidies (bonuses) from universities for publications.

Consider career advancement first. It is noteworthy that only a few departments employ clear rules for academic career advancement. Sometimes these rules are only informal. In other departments, such rules are almost non-existent, even at the most informal level. For example, in most US political science departments, an assistant professor knows that to receive tenure she must publish several articles in peer review journal and usually at least one book with a university press. These are rules of thumb, as the number of publications is contingent on the relevant standards of quality and impact.

Related, but somehow independent of the previous point, is the fact that a number of schools employ a risky – though proactive – policy of heavily subsidizing research output (articles). While LaPalombara was concerned about the 'indiscriminate fishing expeditions for data' (LaPalombara, 1968: 66), this policy of subsidies for published articles may produce, *indiscriminate fishing expeditions for publications*. Whatever position a scholar takes, it is highly unlikely that this policy is neutral in terms of research.

In some departments in Latin America there is a direct financial bonus for every article published in certain journals (i.e. for each published item in 'X' type of journal, the academic receives a certain amount of money) [Type I]. In others, there is a bonus that is distributed every year depending on the total number

**Table 2: Departments of political science and international relations sorted by *per capita scientific area* (2000–2008)**

	Raw				Weighted			
	Size of faculty (Total)	Overall entrances in WoK (total)	Overall impact of publications (total)	Per capita scientific area [Entrances (total) * impact (total)/size faculty]	Weighted entrances in WoK (total)	Weighted impact of publications (total)	Weighted per capita scientific area [W-Entrances (total) * W-Impact (total)/size faculty]	Weighted versus Raw
MEX-CIDE (CP)	12	31	117	300.958	19.4	66.4	107.347	=
ARG-UTDT	9	15	49.5	82.500	7.1	23.5	18.539	=
CHI-PUC (CP)	12	18.8	25	39.167	15.8	12.8	16.853	↑
MEX-CIDE (IR)	12	12.5	26.5	27.604	8.6	21.4	15.337	↑
BRA-IUPERJ	10	18.5	22.5	41.625	9	9.3	8.370	↓
BRA-USP	22	13.5	41.2	25.282	9	17.1	6.995	=
MEX-ITAM (CP)	9	11.2	8.5	10.578	8.8	6.9	6.747	↑
CHI-UDP (CP)	9	10	12	13.333	7.9	7	6.144	↓
COL-Los Andes	18	10.3	12.8	7.324	7	8.1	3.150	=
ARG-San Andres	7	9	5	6.429	4	2.1	1.200	=
BRA-UFGM	23	6	8.5	2.217	3.5	5.6	0.852	↑
ARG-UBA	23	4.4	15.2	2.908	2.5	7.7	0.837	↓
BRA-UNICAMP	14	5.5	3.5	1.375	4.3	2.6	0.799	=
MEX-COLMEX	26	10.3	3	1.188	7.3	1.8	0.505	=
BRA-UFRGS	15	5.3	2	0.707	3.7	1.4	0.345	=
MEX-ITAM (IR)	15	1.3	0.3	0.026	0.6	0.2	0.008	↑
CHI-UChile (IEI)	15	1	1	0.067	0.3	0.3	0.006	↓
ARG-UnSaM	11	0.5	1	0.045	0.1	0.3	0.003	↓
URY-Udelar	27	3	0	0.000	3	0	0.000	=
BRA-PUC-RIO (IR)	11	2	0	0.000	1.3	0	0.000	=
CHI-UChile (CP)	7	0	0	0.000	0	0	0.000	=
Average	14.6	9	16.8	6.300	5.8	9.2	1.900	

of papers published by the department or university [Type II]. Although the figures of 'awards' are markedly different between and within these two cases [Type I and Type II], in both types standards are known and public, and the bonus depends on the status of the journal (e.g. Scientific electronic library online, ISI Web of Knowledge, or even finer criteria such as the impact factor of each journal, or even pre-established criteria made by the national commissions of science and/or departmental criteria).<sup>13</sup> In other departments, scholars are rewarded annually according to the availability of funds, namely the 'awards' are flexible, but publications are just one of the criteria employed in this calculation (usually by the heads of departments). While the weighting of publications within the individual assessment varies from school to school, and from case to case, usually this is still one of the most important criteria, together with teaching and/or academic service [Type III].

In other departments, there is nothing similar to a direct or nearly direct award, and publications simply serve to improve a scholar's *curricula vitae* towards eventual candidacy for a higher academic position (e.g. from associate to full professorship, etc) that concomitantly is related to some kind of salary improvement [Type IV].<sup>14</sup> Finally, there are those departments where the publication of an article in a highly competitive journal does not improve CVs in order to advance academic career or salary. At most, it just improves one's 'status' among peers [Type V]; this group includes the public universities of Argentina and Uruguay. Note that categories I, II, or III, are not necessarily exclusive of IV, and in fact they tend to coexist; in these cases, the value assigned to each department is the highest.

Despite the discussion above, of the inherent political dimension of academia, there are a number of individual-based

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variables that are likely to have a straightforward effect on an individual's production and scientific impact of her research; for example, one's academic degree and type of education. While the first does not require much explanation, the second does. Given the nature of educational systems, I believe that people educated in more traditional collective formal programmes are better prepared than those who pursue a Ph.D. almost without taking classes, with just a minimal amount of general examinations, and where the programme consists primarily of scattered meetings with a Ph.D. advisor. In this regard, I expect American Ph.D. programmes to have the advantage. Most European Ph.D. programmes tend to have fewer courses and examinations (comprehensive exams). Thus, this study includes a series of dummy variables accounting for the country where each person obtained his or her last degree.

I then incorporated a variable indicating the year of graduation and its squared term. Individuals tend to produce a lot during the very first years after obtaining the Ph.D., but this pace soon starts to dissipate as time goes by (an inverse U shape). After the Ph.D. dissertation is defended, the scholar has accumulated a great deal of drafts that soon become papers, but then, the whole process of writing needs to begin anew.

Additionally, the field of research might have some effect on productivity and scientific impact. Here I roughly divided

the discipline into three major areas (comparative, theory, and IR). I am aware that this division is rather artificial because there are blurred areas of research. Still, this division – as crude as it is – offers an interesting starting point. I have also included a variable called *endogamy*, denoting if the considered person graduated from the school where she or he currently works. With regard to this variable, I expect that departments select the best from their pool of students, thus, there should exist a significant and positive relationship with production and impact. Finally, I have included the average amount of teaching time each scholar has per year. Of course, this is one of the weakest terms in regard to its measurement (given the gross differences within any single department).

In Table 3, the reference groups for these multivariate models are those individuals whose degrees were obtained in the United States with the subfield of comparative politics. In other words, each category must be read in relation to the omitted group. While Models 1 and 2 consider the raw value of all papers and their impact, Models 3 and 4 weigh each by time as described above.

Most of the variables behave as predicted, and no major surprises arise. The distance of graduation and its square term were significantly different from zero. It, therefore, reinforces the idea of an inverse U-shape pattern of production. As expected, academic degree is strongly and positively related to productivity and impact (in all models) and, in general, those scholars with degrees from countries other than the US tend to be less productive than the reference group. Only those that graduated from 'Other Developed Countries' can be considered to be as productive as those that studied in the United States (as their coefficient is not statistically discernible from zero). Yet, it is extremely interesting to note that the *impact* of publications of scholars

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who graduated from schools belonging to 'other developed countries' have a higher impact than those from US schools. Delving more into this finding, and checking the stability of my models, I realized that this coefficient is driven upwards by a single outlier, Andreas Schedler from CIDE, who is maybe one of the most productive and highly cited scholars in the region.<sup>15</sup>

Perhaps, one of the most counter intuitive finding is the fact that higher teaching loads are positively related to larger productivity and impact; yet, caution is required in interpreting this coefficient as I used departmental teaching loads and not personal teaching loads. Some departments present heavily skewed teaching responsibilities among its members and these differences are not captured by these models in their present stage. Moreover, depending upon other resources (e.g. teaching assistants, readers, writing requirements, or number of students), the teaching load can vary significantly. Future research will have to delve more on this matter.

## CONCLUSIONS

While the data presented here are by themselves quite telling, their interpretation still is subject to discussion. Although the evaluation of political science programmes will be improved in the near future, and despite the fact that we are still lacking all the required information for making an overall ranking of political science departments in Latin America,

**Table 3: Multivariate analysis**

	Model 1	Model 2	Model 3	Model 4
	Entries to WoK	Impact of entries	Weighted entries to WoK	Weighted impact of entries
Academic degree (3 = Ph.D., 2 = MA, 1 = BA)	0.681***	1.743*	0.437***	0.917*
Degree from Great Britain	0.227 -0.567*	0.918 -1.354	0.147 -0.345	0.472 -0.833
Degree from France	0.341 -0.708*	1.377 -1.471	0.221 -0.521**	0.709 -0.829
Degree from Spain	0.371 -0.935*	1.500 -1.080	0.241 -0.594*	0.772 -0.675
Degree from Brazil	0.480 -0.888***	1.942 -1.021	0.311 -0.640***	0.999 -0.620
Degree from Mexico	0.306 -1.014**	1.237 -1.830	0.198 -0.730**	0.636 -1.018
Degree from other Latin America	0.463 -0.754*	1.873 -0.759	0.300 -0.493*	0.963 -0.479
Degree from other developed countries	0.441 -0.490	1.784 3.569**	0.286 -0.421	0.918 1.594*
Distance from graduation	0.412 0.077**	1.665 0.310**	0.267 0.034	0.856 0.150**
Distance from graduation squared	0.032 -0.002**	0.131 -0.007**	0.021 -0.001*	0.067 -0.003**
Endogamy	0.001 0.708**	0.003 1.587	0.001 0.428**	0.002 0.746
International relations	0.335 -0.404	1.354 -1.532	0.217 -0.320**	0.696 -0.758
Theory	0.248 -0.383	1.003 -1.987**	0.161 -0.269*	0.516 -1.014**
Type (subsidies and career)	0.245 -0.312***	0.992 -1.196***	0.159 -0.206***	0.511 -0.666***
Teaching load (average minutes per year)	0.081 0.000**	0.328 0.000**	0.053 0.000*	0.169 0.000**
Constant	0.000 0.529 0.815	0.000 1.846 3.293	0.000 0.537 0.528	0.000 1.365 1.694
Number of observations	218	218	218	218
F(15, 202)	3.82	2.69	4.34	2.88
Prob > F	0.0000***	0.0009***	0.0000***	0.0004***
R-squared	0.2212	0.1667	0.2435	0.1762
Adj R-squared	0.1634	0.1048	0.1874	0.1151
Root MSE	1.3434	5.4312	0.8709	2.7944

\*\*\* $p < 0.005$ , \*\* $p < 0.01$ , \* $p < 0.1$ .

we can make some concrete assessments regarding the state of the discipline at the national level through the lenses of

production and the impact of research. Certainly, I am aware that the operationalization of productivity leaves many

aspects untouched, and that it is definitely perfectible; however, this is the very first step in combining aspects of productivity and the impact of publications. Much more work is needed on the subject to provide a more solid basis for assessing these topics.

Many universities are moving to formalize the requirements for a successful academic career. Until recently, in many schools aspects such as prestige, political clientele, age, or time in office, outweighed efficiency criteria such as the type and quality of publications and teaching (this last dimension remains absolutely missing in this research because of a lack of reliable data). Even in some public schools with old-fashioned systems of tenure criteria, scholars are starting to demand clear and updated patterns of academic career based on scientific production and its impact.

I must note that during the execution of this piece of research, two different types of feedback were systematically received. On the one hand, a number of colleagues discouraged me in pursuing this research

because 'these rankings do not measure anything' and if they do, they 'are extremely poor proxies for something we do not know how to capture'. Moreover, they claimed that such rankings 'are just tools for the powerful', simply that [sic] 'they are imperialistic', or that 'we are different', and so on and so forth. Yet, on the other hand, many colleagues have pushed me to keep going in this direction because they believe that there is an enormous lack of comparable information on the topic, that most generalizations are based on anecdotal evidence, and that the development of measures such as the ones provided in this paper will likely have a positive impact in the sense of serving as an incentive for universities to consider more explicitly their role as producers of knowledge.<sup>16</sup>

My research explicitly did not yield an *overall* ranking of departments of political science. Yet, if this paper can open a discussion about how to create more transparent, consistent procedures for assessing the production and impact of scientific research, I will be satisfied.

## Notes

1 I thank the anonymous referees of *European Political Studies* and the following colleagues: Ana De Luca Zuria, Ana Laura Rodriguez, Andres Malamud, Angelika Rettberg, Anthony Pezzola, Artur Zimmerman, Carlos Ranulfo, Catalina Smulovitz, Clara Riba, Daniel Buquet, Daniel Chasquetti, Eric Magar, Fabiano Santos, Felipe Botero, Gideon Rahat, Gilberto Aranda, Izabel Noll, Jacint Jordana, Joy Langston, Manuel Alcántara, Marcelo Leiras, Maria Gloria Municoy, Mariana Magaldi de Sousa, Miguel A. López, Miguel de Luca, Rachel Meneguello, Rafael Velazquez, Roberto Breña, Rossana Castiglioni, and Simon Hug. This research fits within the orbit of FONDECYT's Project All caveats apply.

2 Ballard and Mitchell (1998), Garand and Graddy (1999), Hix (2004), Jackman and Siverson (1996), Katz and Eagles (1996), Lowry and Silver (1996), McCormick and Rice (2001), Miller *et al* (1996), Schmitter (2002), Welch and Hibbing (1983), Giles and Garand (2007).

3 For a general overview, see Altman (2005). Also see articles on Argentina (Leiras *et al*, 2005), Brazil (Neto and Santos, 2005), Chile (Fuentes and Santana, 2005), Colombia (Bejarano and Wills, 2005), Mexico (Loaeza, 2005), Uruguay (Garcé, 2005), and Venezuela (Alvarez and Dahdah, 2005).

4 Online information on Venezuelan universities is incomplete and no responses to my inquiries were received.

5 Yet, at the same time is important to notice that during the most recent years, WoK has extended its inclusion of journals in Spanish.

6 *Publish or Perish* uses *Google Scholar* to obtain the raw citations, and then analyzes these citations and presents many interesting statistics, such as total number of papers, total number of citations, average number of citations per year, Hirsch's *H-index*, and related parameters among others. These data are more 'democratic' than WoK's data, as they include columns in newspapers, conference presentations,

chapters, books, etc. However, its use requires greater care, given that lots of 'gray' data are mixed with good data. Downloadable from <http://www.harzing.com/pop.htm>.

7 Actually, some scholars have argued that the *H-Index* is slightly less predictive in terms of accuracy and precision than even the simpler measure of mean citations per paper (Lehmann *et al*, 2006). Also, the *H-index* does not take into account the presence of self-citations, nor does it account for the number of authors of a paper.

8 The *H-Index* seems to be more useful for an advocacy group than for academic work.

9 The assumption that each author worked proportionately with the number of authors on a particular piece undermines David Collier's popular saying that when he writes a paper with other scholar each one ends up doing 75 per cent of the work. At the same time, this assumption also undermines those works in which the workload was skewed, particularly in the cases of professor-student relationships (as many people assume that the student did most of the work and the professor's name is just a blue-ribbon). As these two cases are extremely hard to quantify, I stick to the 'proportional' focal point.

10 This is one of the reasons WoK is already working with a larger impact factor in social sciences (5 years instead of 2 years).

11 Self-citations are also excluded in the case of co-authorship. While I am confident that the data provided in this paper are reliable, I must acknowledge that some problems could arise simply by the fact that WoK uses the typical ordering of names based on the last surname provided. Sometimes, authors are indexed with their second last name instead of the first (in the cases of non-hyphenated names). Though I checked both last names, it could be the case that some entries were not considered.

12 A natural question is: what about a scholar who has one or two widely-cited articles? Alternatively, what about a measure based on dividing citations by publications to create a per-article citation rate? This proposal is great for assessing leading articles, but not necessarily for calculating 'areas of scientific research', or for comparing scholars or departments. For instance, imagine a colleague A that has just one article with fifty citations; and another, B, with five articles and ten citations each. Is there any rule of thumb to determine who is 'better' as a scholar? On the one hand, scholar A had a 'silver bullet', on the other hand, scholar B has shown a much more even pattern of production (which is also notably valuable by current academic standards). This is one of the reasons that the 'area of scientific research' is appealing: it is not contingent to the distribution of cites. (Five articles, with five citations each, would be equal to four articles with no citations and one with twenty-five; in both cases, the citations 'units' is equal to twenty-five.) Moreover, imagine a department with ten articles cited ten times each, and another department that has published twenty articles with nine citations each. Is department A better than department B because it has a higher rate of citations per article? I do not believe so.

13 This variable measures the degree to which there is a financial subsidy for publications. Colleagues from each department were contacted and asked on this regard, and these criteria were constructed inductively. Probably, as research incorporates more departments, these criteria will have to be expanded. Universidad de los Andes uses two criteria: one done by Departamento Administrativo de Ciencia, Tecnología e Innovación de Colombia (COLCIENCIAS) (see: <http://scienti.colciencias.gov.co:8084/publindex/EnIbnPublindex/resultados.do>) and one developed by the Department of Political Science. With CIDE, the story is very similar to that of Los Andes. CIDE uses both, the selection made by the Consejo Nacional de Ciencia y Tecnología (<http://www.conacyt.gob.mx/Index/Paginas/default.aspx>) and an in-house index.

14 One could argue that in many universities in the region, good publications may have an indirect impact on the incomes of scholars because they improve their nominations for national competitive funds (Sistema Nacional de Investigadores in Uruguay, Consejo Nacional de Investigaciones Científicas y Técnicas in Argentina, etc). This is an indirect effect that affects all the cases studied simply by the selection criteria used in this work. Consequently, it was not considered here.

15 These countries are Austria, Canada, Germany, Italy, and Switzerland.

16 Actually, I met with some of the scholars from prestigious universities in charge of settling agreements with other universities, either for agreements on providing a shared degree, or for exchanging students (though most of the time this is one-directional), and they were eager to read more about an inter-departmental comparison. They pushed for continuation of this research agenda because, as they send more and more students to the region for a semester or year of studies, they need to know where to send them. Of course, their decisions are not solely based on departmental 'strength' (whatever that means); they consider other aspects such as safety for students, services, and many other unrelated dimensions. Nevertheless, what to study, and with whom, are still critical criteria for them.

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## APPENDIX

See Table A1.

**Table A1: Descriptive statistics**

Institution	Size faculty	Average degree <sup>a</sup>	Ratio of women	Average graduation	Ratio of endogamy <sup>b</sup>	Education background <sup>c</sup>			Research areas			Incentives for scientific production <sup>d</sup>
						US and UK	Europe	Latin America	Comparative	Theory	IR	
ARG-SanAndres	7	2.71	0.00	1995	0.00	0.86	0.00	0.14	0.57	0.29	0.29	IV
ARG-UnSaM	11	2.64	0.45	1996	0.00	0.45	0.09	0.45	0.90	0.10	0.00	V
ARG-UTDT	9	2.78	0.33	1992	0.00	0.78	0.22	0.00	0.67	0.11	0.22	III
ARG-UBA <sup>e</sup>	23	2.56	0.30	n.d.	0.30	0.13	0.31	0.56	0.30	0.61	0.09	V
BRA-IUPERJ	10	2.80	0.10	1990	0.50	0.40	0.00	0.60	0.40	0.50	0.10	IV
BRA-PUC-RIO	11	3.00	0.36	1996	0.00	0.45	0.27	0.27	0.00	0.00	1.00	IV
BRA-UFGM	23	2.93	0.47	1994	0.27	0.20	0.00	0.80	0.62	0.38	0.00	IV
BRA-UFRGS	15	2.93	0.27	1993	0.20	0.13	0.33	0.53	0.53	0.33	0.13	IV
BRA-UNICAMP	14	3.00	0.36	1998	0.64	0.07	0.07	0.86	0.29	0.57	0.14	IV
BRA-USP	22	3.00	0.27	1996	0.77	0.09	0.00	0.91	0.45	0.41	0.23	IV
CHI-PUC	12	2.92	0.08	1995	0.00	0.75	0.25	0.00	0.33	0.25	0.42	II
CHI-UChile (IR)	15	2.07	0.40	1989	0.40	0.20	0.07	0.73	0.07	0.00	0.93	IV
CHI-UChile (PS)	7	2.43	0.14	1990	0.14	0.29	0.29	0.43	0.71	0.14	0.14	IV
CHI-UDP	9	2.78	0.56	2003	0.00	0.67	0.11	0.22	0.67	0.33	0.11	I
COL-Los Andes	18	2.61	0.39	1999	0.06	0.78	0.11	0.11	0.67	0.11	0.22	I
MEX-CIDE (IR)	12	2.83	0.33	2001	0.00	0.83	0.17	0.00	0.00	0.00	1.00	I
MEX-CIDE (PS)	12	2.83	0.17	1996	0.00	0.75	0.08	0.17	0.83	0.17	0.00	I
MEX-COLMEX	26	2.81	0.42	1989	0.04	0.62	0.27	0.12	0.58	0.08	0.35	IV
MEX-ITAM (IR)	15	2.80	0.40	1996	0.07	0.33	0.60	0.07	0.00	0.00	1.00	III
MEX-ITAM (PS)	9	2.78	0.11	1996	0.00	0.89	0.11	0.00	0.67	0.22	0.11	III
URY-UdelaR	27	2.44	0.33	2000	0.37	0.07	0.15	0.78	0.89	0.11	0.00	V

Table A1 (continued)

Institution	Size faculty	Average degree <sup>a</sup>	Ratio of women	Average graduation	Ratio of endogamy <sup>b</sup>	Education background <sup>c</sup>			Research areas			Incentives for scientific production <sup>d</sup>
						US and UK	Europe	Latin America	Comparative	Theory	IR	
Average	14.62	2.75	0.30	1995	0.18	0.46	0.17	0.37	0.48	0.22	0.31	
Min.	7.00	2.07	0	1989	0.00	0.07	0.00	0.00	0.00	0.00	0.00	
Max.	27.00	3.00	0.56	2003	0.77	0.89	0.60	0.91	0.90	0.61	1.00	
SD	6.20	0.23	0.146	3.9	0.24	0.30	0.15	0.32	0.29	0.19	0.35	

<sup>a</sup>Average of highest degree obtained by each faculty member (1, undergraduate; 2, MA; 3, Ph.D.).

<sup>b</sup>Ratio of faculty who obtained their last degree at the very same institution where they currently work.

<sup>c</sup>Geographical origin of their last degree obtained.

<sup>d</sup>Incentives for Scientific Production: *Type I*: direct financial bonus for every article published in certain journals. *Type II*: there is a bonus that is distributed every year depending on the total number of papers published by the collective. *Type III*: annual rewards according to the availability of funds, and publications are just one of the criteria employed in this calculation. *Type IV*: no direct award (publications simply serve to improve scholars' curricula vitae towards eventual candidacy for a higher academic position), which concomitantly is related to some kind of salary improvement. *Type V*: not even an indirect award. At most, it just improves one's 'status' among peers.

<sup>e</sup>UBA's data are incomplete (complete records available for 60 per cent of faculty). Therefore, UBA's means are to be taken with caution.

### **About the author**

**David Altman** received his Ph.D. in political science from the University of Notre Dame and is Associate Professor of Political Science at the Pontificia Universidad Católica de Chile. He works on comparative politics with an emphasis on the quality of democratic institutions, mechanisms of direct democracy, and executive-legislative relations. He is the author of *Direct Democracy Worldwide* (Cambridge University Press, 2011).