



DOCUMENTO DE DISCUSIÓN

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A RESULTS-BASED INCENTIVE SCHEME TO IMPROVE PERFORMANCE

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Introduction

A qualified and motivated pool of professors and researchers is a key input in any successful higher education endeavor (Salmi, 2009). Hiring professors with adequate qualifications is, of course, part of the answer to achieve this. However, improving the competitiveness of a university from within, and when the academic career has been historically based on age rather than on merit, is a much more difficult task. We believe a simple and transparent results-based incentive scheme can help reshape academic performance. Universidad del Pacífico, a medium size not for profit private institution specialized in economics and business fields, launched in 2007, an incentive system with these characteristics (Universidad del Pacífico, 2008). Monetary bonuses and promotions are linked to a set of results indicators, each having a particular weight which reflects university's priorities regarding teaching skills and research accomplishments and dissemination. We describe this incentive system, briefly discuss the internal "politics" of its approval and implementation, and assess its potential effects on academic performance after 5 years of continuous operation.

Average growth of 39% in per capita production during the initial two years could be contaminated by a reporting effect. However, additional rounds of average growth of 21% in subsequent years suggest that the system has elicited real increases in productivity in most university professors. The system has been enshrined in the university's formal statutory decrees and is well placed as a productivity yardstick for current and incoming professors in all faculties. We believe this experience can provide useful lessons on how to create a critical turning-point in universities in developing and developed countries.

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Method

Up to 2007, the academic career at Universidad del Pacífico was heavily dependent on age rather than on merit. Also, there was high salary dispersion between professors. This scenario raised the need for a reform that ought to deal with two main concerns. From within, we needed to reshape our understanding of productiveness, provide incentives to improve it, and align salaries accordingly. From the outside, we needed to attract promising young academics by streamlining and making career development more transparent.

Taking all these elements into account, we developed an incentives scheme with four pillars related to the main areas where a professor constructs its professional career. As a lecturer, a professor is expected to produce significant learning experiences with his/her students. Secondly, as a researcher, a professor is expected to produce and publish quality research work. Also, as a manager, a professor is expected to obtain external funding for his work and contribute to the institution decision-making processes. Finally, as a doer, a professor is expected to disseminate the results of his/her research efforts and to provide solutions relevant to public and private organizations. Academic development in these pillars involves different results, listed in Table 1.

General principles used to choose criteria and the relative weights for items within each pillar were: (i) **items should reflect results more than products.** For example, more important than the number of hours a professor teaches (product) is the significant learning experience of his or her students (result); (ii) **the criteria must be transparent and easy to measure.** We proposed to work with products with an easy-to-measure associated result, resembling quality. For example, an article (product) published in a peer-reviewed journal (result) is a significant contribution to knowledge; and (iii) **results have to be related with the four pillars described above.** This may seem obvious, but helps to narrow down the different products and results that a professor makes.

Table 1: Relevant information concerning each pillar

As a teacher	As a reasercher and/or consultant	As a manager	As a doer
- Students evaluation survey	- Books	- Annual overhead on research and consultancy services	- Conference or course organizer
-Peer evaluation survey	- Book's chapters		- Conference or course lecturer
- Lecturer in other universities	- Papers on journals	- Annual university operating plan goals achieved	- Conference discussant
-Thesis jury in other universities	- Other teaching materials		- Board member in a public or private organization
-Mean score in advisory	- Working papers		- Value of a column or an interview in the media
- Mean score in mentoring	- Reviews		- Extraordinary honors and awards
	- Journal editor		

In addition, we needed to measure all items in the same unit. We named this unit “Unidad de Productividad” or UP, the same acronym of our university. Therefore, the sum of all UPs accumulated in a year by each professor measures in a simple and transparent way his/her total productivity (TP). A crucial ingredient of the system is the relative weight of each item and pillar in the overall evaluation. This can be easily introduced by assigning a different number of UPs to each item. An interfaculty commission appointed by the Rector made an initial proposal, based on our institutional

mission, which was then validated through several rounds of participatory meetings with all faculty members.

The last step of the reform was to tie this scheme to promotions and salary. With this reform in place, a professor needs to score within the upper third of the university productivity distribution for 3 to 5 years to be able to get a tenured position and to access to the following two professor categories (associate and principal). In the “best case scenario” a new full time lecturer can become a principal professor in eleven years. In terms of salary, incentives work in two ways. The first one is an annual bonus that can be as high as two more monthly salaries and as low as zero, depending on the number of UPs accumulated in the year. The other monetary recognition is tied with the salary range for each professor category. In this case, the incentive is more linked with the academic career, but also involves a monetary recognition.

The sustainability of this institutional reform needed to consider additional criteria to reduce adverse reactions and generate consensus: 1) **Results must be doable:** We needed to strike a balance between what we can do and we want to do, 2) **Consult with your faculty:** This scheme won't work if it is perceived as imposed. However, it was important to remember that we are not trying to recognize what we are currently doing, 3) **New rules of promotion should apply to new professors:** New qualifications and standards of promotion will apply only to those who are starting their academic career, 4) **You have to show that the system works:** A preliminary evaluation, based on two years of past performance, helped to launch transitory measures to start correcting salary dispersion via bonuses, and, 5) **Prepare your intranet system to gather information you need to evaluate:** Having a special intranet site to gather professors' information is vital. Also, department heads play a crucial role validating each result.

Results

Since 2007, we have performed five assessments, including a transitional 2006/2007 evaluation undertaken in 2008. This transitional evaluation is our baseline scenario because it tries to capture mean productivities in the absence of the incentive system. Taking this period as a baseline, we can observe and judge changes in the TP in the following years. Although we need to account for potential biases (“a

reporting effect”) in the initial years, results so far are very promising indicating true productivity increases in the faculty.

As can be seen in Table 2, TP has raised around 4 UP’s per capita every year since the incentives scheme started. Also, we can observe a rise in every area of evaluation during these 5 years.

Table 2: Average Annual Productivity Change

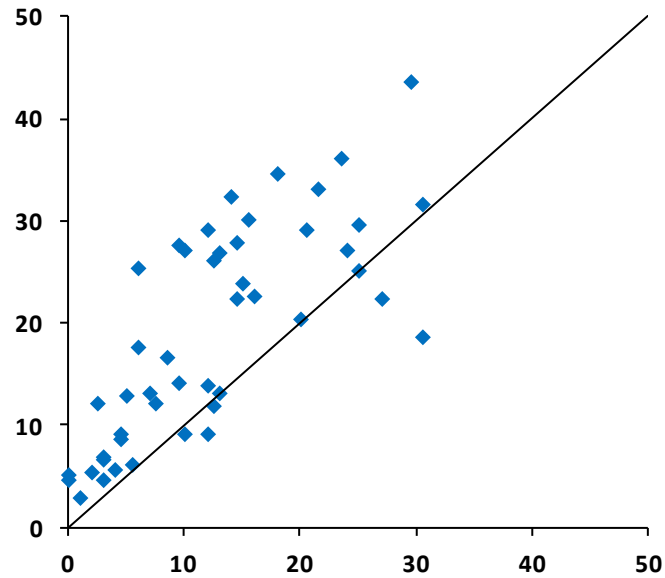
Period	Productivity Change	Teaching Capabilities	Academic Production	Resources and Fees	Disemination	TP
06-07 / 08	Absolute	2.23	1.16	-0.12	1.13	4.41
	Var. %	80%	52%	-33%	19%	39%
09 / 11	Absolute	1.84	1.42	0.25	0.44	3.95
	Var. %	28%	35%	62%	6%	21%

Conclusion

Graph 1 plots initial TP levels for each professor against the new average TP levels reached in subsequent years. The overwhelming majority of professors have been able to increase their observable productivity levels, since all dots but five surpass the 45 degree line. This result is good news for the incentive scheme since it has apparently elicited more effort and tangible results by the staff.

Graph 1: Initial TP versus Average TP in Subsequent Evaluations

(Initial Evaluation (X Axis), Average in Subsequent Evaluations (Y Axis), 45° line)



However, there seems to be three emerging groups: A high-productivity one which has been able to increase its output further. A medium-productivity cluster which has boosted its production the most with the incentive system. Last, but not least, a low productivity group which has shown rather disappointing results in spite of the system. It is a high risk cluster that needs to be closely monitored. They might need to redefine their terms of contract with the university, since their productivity and effort levels are not meeting the institution's expectations.

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