Chapter 13
Current Challenges Facing the Academic Profession in Argentina: Tensions Between Teaching and Research

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13.1 Introduction

In the last 20 years, the academic profession in Argentina has been under severe stress as a consequence of a higher education reform conducted by the government. The changes—made in the light of hegemonic neoliberal thought—put into question the conceptions about how knowledge of the highest level is produced and distributed and tended to modify not only the general framework in which the academic profession develops but also the material and symbolic conditions of academic work resulting in the emergence of new styles of performance and professional development strategies.

How are duties distributed? How the different roles are made compatible? Which are the academics' preferences? What does it mean to teach and do research at the same time? These are some of the questions this chapter will try to answer so as to provide a panorama of the academic profession in Argentina.

The chapter proposes a study of the tensions between teaching and research functions in the work of Argentine academics on the basis of the analysis of their perceptions regarding their employment relationship, the relationship with their disciplines of origin, and the organization of academic work. This analysis is based on the results of the survey the Changing Academic Profession (CAP) administered to 826 teachers from different academic disciplines and fields of national universities in Argentina in 2008.

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13.2 Argentine Academic Work Profile (Based on Teaching Practice)

The Argentine university where academic tradition is mainly oriented toward teaching has been the axis around which the academic activity has spun. Even when the 1918[1] reform introduced functions such as research and extension as constituents of the academic work, the teaching activity based on the principle of *academic freedom* could be preserved as prestige, and teaching gives identity to Argentine academics for about a century. In turn, research began to develop as a parallel activity in rather small academic circles both in terms of number and fields of knowledge and was carried out in specialized research organisms that had little contact with the universities despite sharing institutional spaces and infrastructure.

Framed within an accelerated process of massification of higher education, the 1960s were marked by transformations in the curricular structures and the prestige that teachers and researchers achieved. Likewise, the appearance of a new competitive mechanism to get access to an academic position brought about a generational renewal of professors. The increase of full-time jobs resulted in the figure of the teacher-researcher in a university environment conceived for scientific and intellectual creation. However, this integrated activity developed more intensely within those disciplines that counted with a research tradition, namely, the basic sciences both hard and soft (Becher and Trowler 1989).

The subsequent growth in the academic staff in Argentinean universities accompanied an enrolment explosion though that growth involved mainly the figure of a professor whose activities were limited exclusively to teaching. The democratic period in the 1980s doubled the number of university professors which made it possible to cope with the ever-increasing demand coming from low-income students. However, the academics were largely part time, and this increase took place, mainly, in one of the most demanded areas: the social sciences.

The reforms of the 1990s, which will be referred to further below, found an academic profession based mainly on teaching which was, in most cases, carried out under the responsibility of assistants or teachers with little academic background, without postgraduate degrees, and coming mostly from other work fields. Within the context of the times, these professionals saw university teaching as an additional income. On the other hand, there were a few academics (especially from the areas of Natural Sciences and Mathematics) who evinced a steady and substantial research activity.

[1] The 1918 reform was a large-scale students' movement that took place in Argentinean universities and influenced the rest of Latin America. It aimed at the updating of contents, the opening of job positions to a new generation of professors, as well as the inclusion of alumni, students, and teachers in the university governance. The reformers' main complaints concerned the backward state of the scientific field and teaching system. The lack of renewal of the teaching staff foreshadowed the continuance of outdated contents together with an encyclopedic and theoretical approach as well as a rigid organization of disciplines.

We are confronted, thus, with a large number of academics who built their profession around class work and developed their identities and ethos (Clark 1992) in the relation knowledge-student, so far distinct profession-related features and at the same time a source of prestige and personal pride. Faced with a competitive and credit-based scenario, these professionals had to acquire and develop new competences and strategies.

13.3 Characteristics of Access to and Promotion in the Academic Career

The prevailing type of organization of the academic work in Argentinean universities, especially in the most traditional ones, is the chair (or "cátedra") in which the academic career is made up of a number of positions organized hierarchically, the main categories being those of teaching assistant and professor. Supposedly, teachers in the first category are in charge of coordinating practice work groups whose members also attend the lectures given by professors. Other institutions are organized following the departmental structure in an attempt to move away from the rigidity and verticality of the "cátedra." Nevertheless, the different levels of the teaching posts do not vary much and in most cases keep a vertical work organization.

A teaching position at university is obtained through the mechanism of "concurso de antecedentes y oposición" (a selection process involving a competitive examination of background, a lecture, and an interview assessed by a board of judges). To that purpose, the institution publicizes the availability of a job position and the selection is made by a board of peers (holding a higher position to the one offered) who has the task of assessing the candidates' curriculum vitae, interviewing them, and evaluating the class given, the topic of which has been previously chosen by lot from the contents of the subject syllabus. In the case of the position of professors, the job stability provided by the "concurso" will last 5–7 years, after this period a new public contest takes place. In the case of the teaching assistants, the period of job stability is of 3 years. During this time the professor cannot be removed from his position—only under extreme circumstances—and he acquires "university citizenship"; that implies that he can take part in the institutional governance system by choosing or by being chosen to perform various roles. Thus, the complexity in the mechanism of "concurso" ensues from a twofold implication regarding academic policy and institutional incidence (Marquina and Fernandez Lamarra 2008).[2]

[2] Such complexity sheds light on many current problems in the governance of the biggest and most traditional universities. In many cases the percentage of teachers assessed in due time through the mechanism of "concurso" is low, not only because of the complexity of the mechanism itself but also due to political decisions that delay or move up the "concursos" what has the potential to determine the political composition of university government.

13.4 Research-Oriented Policies of the 1990s

The government that took office in 1989 implemented a political agenda for the university sector that was clearly framed within the international trends of the times, that is, highlighting the efficiency of institutional management and teaching quality improvement. These policies concerned certain measures which modified the work of university professors, their socializing mechanisms and practices creating a "type" of academic who was expected to have a high postgraduate training and to perform teaching and research activities at the same time. In this context, academic activity started to be assessed in terms of research productivity; different regulations and economic incentives were introduced creating a model of academic work that, until that moment, had been limited to some specific disciplines.

In 1993, the National Teacher–Researcher Incentive Program was one of the highlights among these policies. It was designed to promote an integrated approach to the academic track, to contribute to the increase in research-related tasks at university, and to encourage retraining among the teaching staff aiming at a greater dedication to university activity (Ministry of Education 1994). Within a context of really low salaries, this incentive meant an improvement in the income of teachers who voluntarily adhered to the program, met certain requirements, and complied with preestablished standards of achievement based on the acquisition of new academic work skills. Apart from material compensation, whose value varied throughout the program, this mechanism entailed the establishment of a system of symbolic rewards that gave researchers a hierarchal category assigned by academic peers who gathered to evaluate the activity of each teacher-researcher in the program. As a result, by means of the systematization of the information regarding academic activity, the government set up a new quality control mechanism for the group of state-funded university teacher-researchers which has varied in number since its implementation.[3] These new regulations—homogeneous and external to the institution—began to shape a new "type" of academic who would be oriented toward postgraduate training, research, and teaching, all of which would establish a new "academic working model" that would greatly impact a task structure which gradually becomes more fragmented and diversified.

The new options to obtain the necessary funds for research or for the specific development of programs—assigned to institutions or research groups in a competitive manner—have become common practice on the part of the Ministry of Education. Such new funding modalities have had an impact on the academic activity in so far as the multiple and competitive calls for access to funds have created practices such as project design, form filling, and elaboration of reports as part of initiatives that do not necessarily correspond with institutional aims and priorities but rather with government policies (Marquina 2007).

[3] Presidential Decree Nº 2427/93 for the creation of the Incentive Program specifies that, out of the totality of positions within the university system, which is estimated at a hundred thousand (100,000), only 15 % takes part in research activities.

The new skills that stand out from these new competences are the ones that allow the solution to the ever-growing difficulties that arise from the multiplicity, simultaneity, and immediacy of the tasks to be performed under conditions sometimes far from adequate. Adding an activity like research to the tasks of many academics who until then had developed their activity mainly in the field of teaching resulted in both a stimulus and a demand to develop specific competences in order to comply with new academic work standards: more paper submissions, more congress presentations, transference of results, patenting, etc. These new demands undoubtedly created tension with other tasks, disturbing some of the activities either periodically or permanently, depending on their level of demand. Under these circumstances, teachers will give priority to research during the evaluation and categorization period, will make sure to attend scientific meetings, in other words, they will carry out any activity concerning the metier of the material aspects of knowledge production, in detriment to other work-related activities. The latter, which could be considered an example of the deep diversification of academic work, is also an example of the wit that professors must appeal to in order to stay in the system. We can add that these new academic work configurations came up during hard times for the Argentinean university as a result of the lack of funding and scarce budgets the institutions received all through the 1990s.

Currently, official evaluations of the incentive program show, as part of its achievements, an increase in the number of researching teachers (from 11 % in 1993 to 33 % of the teaching staff at national universities), an improvement of the academic career (60 % of those who participate in the program have reached a higher category since 2004 to date), a consolidation of an evaluation system, and the possibility to evaluate researchers and projects homogeneously as well as the access to a homogeneous information system concerning research activities carried out in the national university system.

Despite its strengths, quantitative and qualitative studies reveal the program's differential impacts are in favor of full-time teachers who only make up 16 % of the whole teaching staff in Argentina's national universities. Also, some counter effects were shown concerning the "placement-adaptation" practices of professionals that allow them to get in and remain in the program in ways that undermine the ethics of research and scientific production[4] (Araujo 2003), or homogeneous strategies of a more disciplinary and productive nature, where the larger amount of publications often goes hand in hand with a loss of originality and quality of the material produced (Leal 2006).

The change in the political context of the Argentine State since 2004, the increased salaries and university budget, and the creation of a Ministry of Science and Technology have not yet managed to bring about changes concerning the teaching-researching orientations and policies that originated in the public agenda of the 1990s.

[4] According to Araujo, empirical evidence shows that professors use different strategies to meet evaluation requirements, some of which lead them to use *certain manipulative practices or CV-forging practices.*

13.5 Tension Between Teaching and Research: Some Results from CAP

Below, we bring forth some data that state the perception of Argentine university teachers on how they combine their teaching and research tasks. These are the results of a survey carried out as part of the project called The Changing Academic Profession (CAP). In the case of Argentina, the analyzed population was teachers at state-funded universities, that is, teachers who depend on national universities and have various time dedications and positions. The design of the sample was done in one step, taking the official database of the University Information System (SIU) of the National Ministry of Education. Of a totaling 119,000 teachers in the existing national universities, a random sample was drawn comprising 2,400 teachers (as agreed at an international level) with the aim to obtain 800 effective answers in each country.

The following results come from 826 fully answered surveys; the distribution of the informants was similar to the overall sample, except on the matter of time dedication (the time devoted to academic activity), in which case there is a bias toward full-time dedications. As regards the choice of the results to present in this chapter, we set off from the hypothesis that, in the last decades, public policies for teachers have generated changes in their jobs' acknowledgement and reward system that would explain the preferences, interests, and perceptions they have regarding the tension caused by their teaching and research tasks. The analysis mainly considers the difference among disciplines, a variable that has shown the most significant variations in the analysis.

13.5.1 The Distribution of Academic Time

In Argentinean tradition, the academic activity was regulated by class periods since they were divided in cycles of 4 months and in annual cycles. Generally, it was around this activity that research was organized. After the changes that determined the academic task, research times also began to be regulated by cycles which are connected with project presentation deadlines, advancement reports, final evaluations, accounting for the resources used, etc. This situation has made the academic task more complex and has led to the mutual overlapping evinced in time distribution.

Table 13.1 shows that all the informants state that they devote more hours to do research (15.9) than they do to teach (13.9) during the class cycle. It also demonstrates that the time devoted to research during the nonclass periods does not increase inversely proportionate to the decrease in the hours dedicated to teaching (17.9 against 15.9). In the light of this evidence, we wonder how and to what end university professors manage their time as well as to what extent the degree of work intensity on either activity impacts on the remaining one. Evidently, the data shows

Table 13.1 Hours spent according to type of activity

	Hours per week during term classes			Hours per week during nonclass periods		
	Mean	Standard divergence	Total observations	Mean	Standard divergence	Total observations
Teaching (preparation of instructional materials and lesson plans, classroom instruction, advising students, reading and evaluating student work)	13.9	7.6	826	5.3	5.6	826
Research (reading literature, writing, conducting experiments, fieldwork)	15.9	10.3	826	17.9	13.7	826
Service (services to clients and/or patients, unpaid consulting, public or voluntary services)	2.4	3.9	826	2.4	3.9	826
Administration (committees, department meetings, paperwork)	3.7	6.0	826	3.7	6.0	826
Other academic activities professional activities not clearly attributable to any of the categories above)	2.3	4.1	826	2.3	4.1	826

Source: Survey The Changing Academic Profession (CAP) Question B1: Considering all your professional work, how many hours do you spend in a typical week on each of the following activities?

that during the periods without classes, the academic takes some time to rest, probably as a consequence of the pressure periods they undergo when having to meet all the requisites that teaching and research demand.

It is also noticeable that there are various activities that characterize the academic and that are not restricted just to teaching and doing research and which entail increasingly multiple and complex tasks. These are activities such as service or extension, management, and governance, which constitute key areas of a university funded upon a model of co-governance and autonomy. The academics' participation in activities of such nature—from committees, council, and evaluation boards to the design and implementation of extension projects and service sales—requires certain academic-management skills and policies that will allow them to achieve consensus, to lead processes, and to make decisions, that is to say, complex activities that require special knowledge and which take up a third of the time devoted to teaching and research activities if considered separately. This low dedication puts forward some questions with respect to its strong presence in the daily institutional life and the little visibility of the real time devoted to it by academics.

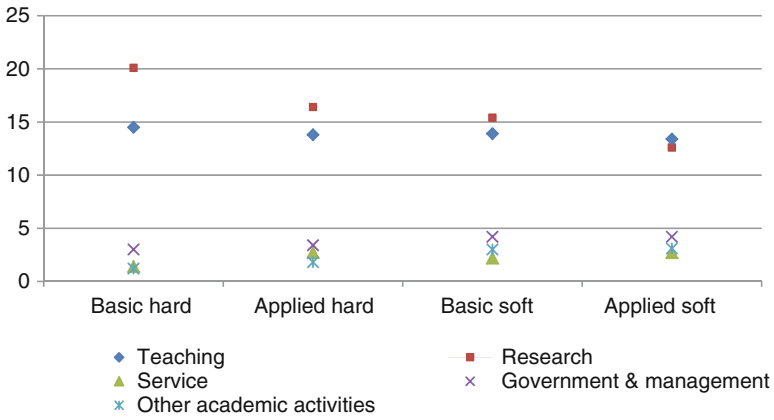

Fig. 13.1 Average hours per week according to the type of activity carried out during classes and to the disciplines

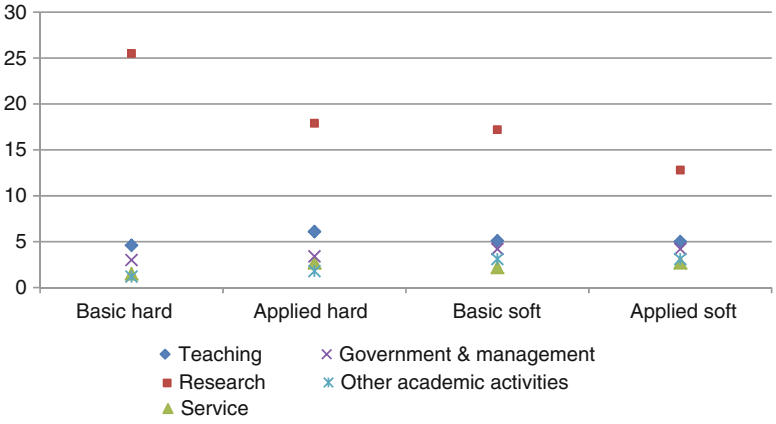

Fig. 13.2 Average hours per week according to the type of activity carried out during nonclass terms and to the discipline

This general time distribution of Argentinean academics varies according to the discipline they are in. As seen in Fig. 13.1, during class periods, the number of hours used for teaching and research is balanced in the case of applied soft sciences, while the gap grows gradually when it comes to the basic soft ones, reaching greater amplitude in the applied hard sciences and, finally, in the basic hard ones.

Figure 13.2 shows that the academics working in the applied soft sciences remain stable regarding the number of hours devoted to research in both periods.

Service, management, and government activities are the ones the academics from the four groups of disciplines spend the least time on. If we consider all of

them together during class terms, they barely reach a third of the hours taken up by teaching or research individually. The group that devotes less time to this type of activities belongs to the basic hard discipline, and the one that spends more time on them is the one made up of academics within the soft sciences, both basic and applied.

Out of all the activities mentioned above, more time is destined to management and governance than to services and extension. This fact is noteworthy if one considers that extension to the community is one of the three main roles of Argentine state universities, which is why it would be reasonable to expect it to be given more time dedication both because of its importance and for the fact that it is one of the foundations upon which the 1918 university reform stands.

13.5.2 Ways of Teaching

Undergraduate teaching in Argentinean universities involves a variety of formats and activities that range from the traditional lecture to the introduction of new information and communication technology. As we pointed out in previous studies, university teaching seems to be stuck in traditional characteristics, to be reluctant to innovation, caught up in a sort of pedagogical reproductivism. In this sense, the inclusion of new teaching strategies seems to depend more on personal interest and commitment on the part of the teacher than on an institutional policy (Leal and Robin 2012). In this part of the chapter, we will analyze the different class types available despite the predominance of the typical lecture class as shown in Fig. 13.2.

The information in Table 13.2 shows that from the different ways of teaching, the model that stands out is that of the lecture (98 %) in which on site presence seems to be the main characteristic. Distance education that could well be one of the alternative types of courses to cope with massification shows a very low percentage with respect to other figures (16 %). This data may indicate that its scarce development in national universities is related to their low-technology resources, lack of political decision, or interest on the part of both institutions and teachers in incorporating this innovative way of delivering teaching as well as the university's teaching reproductive tendency that has succeeded in keeping its format for more than a century. The positivist vision of the teaching organization which still divides classes in theory and practice, even in areas of knowledge that do not admit such distinction, is enough proof of this tendency. Besides, one cannot disregard the fact that the use of new technology calls for an important state investment and requires that students count with basic electronic devices. The striking percentage concerning e-contact with students (75 %) as an alternative way of teaching could be interpreted either as an attempt on the part of teachers to try out innovative teaching strategies closer to distance education or as a lack of time or institutional space to assist students individually.

Table 13.2 Participation in different class types

	Yes	No	Total
Classroom instruction/lecturing	801	17	818
	(98 %)	(2 %)	(100 %)
Individualized instruction	344	474	818
	(42 %)	(58 %)	(100 %)
Learning in projects/project groups	297	521	818
	(36 %)	(64 %)	(100 %)
Practice instruction/laboratory work	402	416	818
	(49 %)	(51 %)	(100 %)
ICT-based learning/computer-assisted learning	323	495	818
	(39 %)	(61 %)	(100 %)
Distance education	134	684	818
	(16 %)	(84 %)	(100 %)
Development of course material	581	237	818
	(71 %)	(29 %)	(100 %)
Curriculum/program development	394	424	818
	(48 %)	(52 %)	(100 %)
Face-to-face interaction with students outside of class	585	233	818
	(72 %)	(28 %)	(100 %)
Electronic communications (e-mail) with students	614	204	818
	(75 %)	(25 %)	(100 %)

Source: Survey CAP. Question C.2. During (or previous) academic year, have you been involved in any of the following teaching activities?

13.5.3 Preferences and Teaching-Research Compatibility

As stated in the analysis of teaching activity, the research-teaching nexus within the context of an institution such as the university is undeniable. The dialectics between both functions can also be observed when research feedbacks into teaching and gives its fundamentals and updates it.

These functions also show key differences as regards logics, cultures, times, spaces, conditions, individuals involved, and ways of materializing and of accounting for them apart from the distinctions provided by the disciplines of reference themselves. In the same way university academics strongly agree on the need of a steady research development and on awarding more prestige to research than to teaching.

Despite this certainty, before the application of the reform policies of the Argentinean scientific system, getting involved in research activities depended almost exclusively on the academics' particular interest, on the tradition of certain disciplines, and on the reference communities. However, two decades after their application, it is barely imaginable for a university academic not to be involved in research.[5]

[5] According to qualitative research about incentive programs, the demand of research production involving all Argentine university teachers is structured according to such logic that those who do not engage in research see themselves as outside the university system. They consider that "*the university system is a social system to which you either belong or are excluded from*" (Leal 2003).

Table 13.3 Participation in different research activities

	Total		Soft		Hard	
	Yes (%)	No (%)	Yes (%)	No (%)	Yes (%)	No (%)
Inquiry and generation of knowledge (elaboration of experiments and field work, supervision of research groups)	52.3	47.7	40	60	62.3	37.7
Transference and communications (writing of papers, participation in transference processes)	56.5	43.5	51	49	60	40
Resource administration and organization (elaboration of proposals for funding calls or subsidies, administration of contracts and budgets, equipment and material purchasing)	49	51	43.3	36.7	50	50

Source: Survey CAP, question D.3: Have you been involved in any of the following research activities during this or the previous academic year?

This new social agent, identified as teacher-researcher, is the kind of academic that takes part in the traditional functions (teaching, research, and extension) and in the new ones (institutional management, community transference, sales of services). In order to remain in the system, he has to diversify his work even at the risk of jeopardizing his professional performance.

In Argentina, the tensions between both activities could be explained by the fact that research was posed as a demand that obliged academics to prove their involvement in undergraduate teaching as well as institutional management and transference to the community (Table 13.3). This situation led full-time teachers to engage in research and vice versa. That is to say, it led academics to diversify their work focusing on research production (transference of results, development of human resources, publications) as products they have to account for, permanently. On the contrary, the teaching function gets less attention since it is an activity whose material production is more difficult to show.

According to Fig. 13.3, of the total number of Argentinean academics, 57 % shows an inclination for research (if we consider the two variants of the answer). This preference finds an equilibrium in the soft disciplines and is definitely more marked in the hard ones where it reaches 62 %.

The difference in preferences according to the disciplinary fields is not at all surprising. There has always been a much stronger research tradition in the hard sciences from the very moment of the creation of the Argentinean university even though teaching was its main academic task. However, what does call our attention is the total results. Even though the majority of the teaching positions are part time (60 % of the total number of teachers), most of them feel more attracted to research. This preference may be due to the existence of the already-mentioned incentive programs and to the fact that the concept of teacher-researcher has already found its place in the mind of the academics even when the position may only demand teaching tasks. As already stated, the data corroborates the idea that the one who does not do research is out of the system of acknowledgement and of material and symbolic compensation which the Argentinean academic is part of.

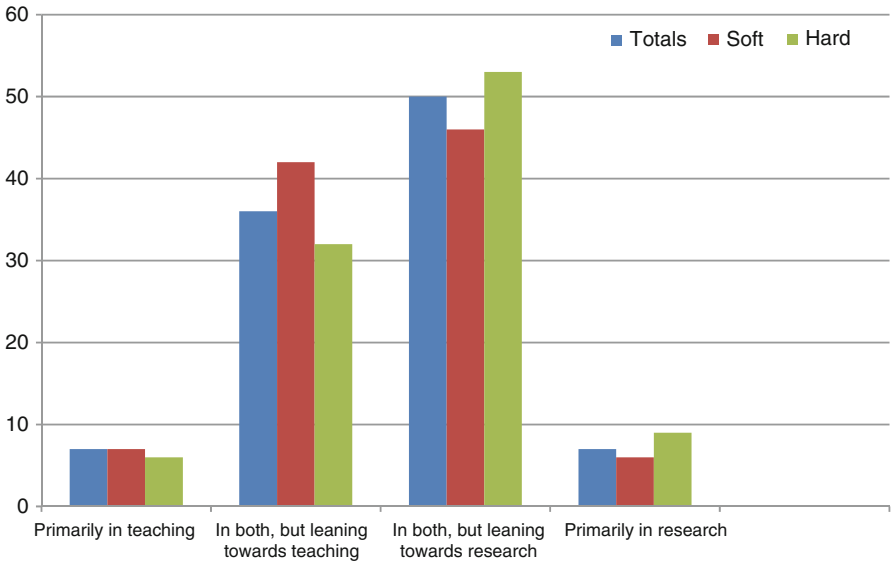

Fig. 13.3 Preferences and academic interests regarding teaching and research (Source: Survey CAP. Question B.2: Regarding your own preferences, do your interests lie primarily in teaching or in research?)

It is worth pointing out that beyond this general tendency lies the idea of compatibility and feedback between teaching and research. The level of disagreement obtained when considering the assertion that teaching and research are hardly compatible is remarkable (4.41 on a scale in which 5 means total disagreement). These answers confirm that both activities are deeply rooted in the social imaginary of the university members.

However, it is surprising that the increasing demand of productivity—originated in the recent policies oriented at getting and attesting to research results—should not be present among their strongest perceptions. Even if the informants' answers are in an intermediate value range which does not allow categorical conclusions, they are more inclined to disagree than to agree with the assertion that such policies are a threat to research quality (2.47 and 2.75). This would lead us to suppose that after 18 years the rules of the game and the reward and punishment system have had an impact on the common sense of the academics, consolidating the figure of the teacher-researcher. On the other hand, the fact that the answers do not show absolute disagreement also indicates the difficulties these policies face in getting unquestionable consent.

We were interested in finding out the way in which the polled academics view the research-related variety of activities. For that purpose we distinguish three areas of activity. Within the context of the strictly scientific-research area, we separate *inquiry and knowledge production activities*—the hard core of research—*transference and communication* of produced knowledge. We also recognize the *resource administration and organization* area (Fig. 13.3).

The production of academic writing (papers, articles, reports), that is, *transference and communication activities*, is the one which shows the highest positive percentage in the *scientific-investigative activity* area (56.5 %). However, this percentage diminishes (52.3 %) when it comes to participation in *inquiry and production of knowledge* (field work and experimentation) which are the ones that provide the necessary data for the analysis and elaboration of papers that are reported at scientific meetings.

The discrepancies between activities oriented to the generation of knowledge and those of communication and transference are explained by different disciplinary research traditions. The soft sciences are the ones that widen the gap between these two moments in research work. This data poses questions regarding the reasons behind the noticeable difference between academics that carry out empirical research and those that focus on transference and communication. Which is the organizing logic of this division of scientific work which makes certain disciplines more focused on inquiry and generation of knowledge? To what extent is this related to the demands imposed by two areas that apparently require different degrees of scientific rigor and consequently the one that looks easier has more followers? If evidence supported this hypothesis, its consequences would be disturbing since they would lead us to question, among other things: Which is the degree of scientific rigor that researchers think their papers should have? How much of the knowledge that is shared in scientific meetings is the result of empiric, solid, and steady research work? To what extent is the recent proliferation of scientific papers the result of repeated rewritings coming from one empirical work? We could say that all this is the aftermath of a process of constant re-elaboration of knowledge that is offered for peer assessment and validation or that they are a way of answering to the productivity demands posed by the incentive programs. We cannot rule out the possibility that both alternatives are at work creating a complex adaptation system that academics efficiently combine so as to remain in the system.

13.5.4 View on the Changes in Work Conditions

Argentinean academics say they are satisfied with the work they carry out. When asked to grade their level of work satisfaction, almost 65 % of the answers indicate a high or very high level of satisfaction that places Argentina among the nine more satisfied countries in the CAP survey (Marquina and Rebello 2012). Nevertheless, the view of Argentinean academics regarding the extent to which the academic working conditions have varied in the last few years is half way, in a sort of plateau, with a slightly more negative vision with respect to the conditions demanded for doing research and even a more negative one when it comes to mechanisms of access to permanence and promotion in job positions and salaries (Fig. 13.4).

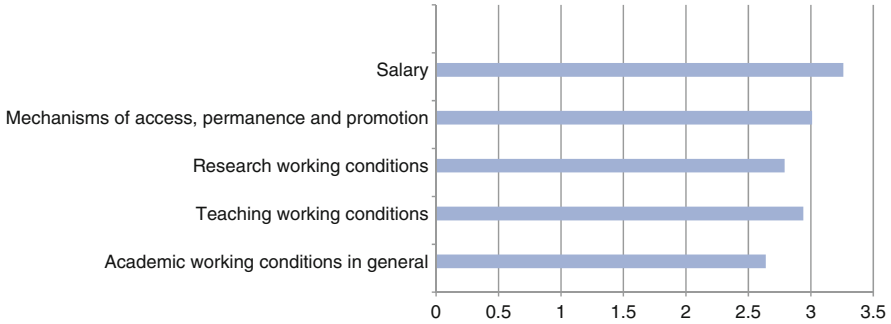

Fig. 13.4 Perception of the improvement or decline in working conditions (Survey Question: Since you started your career, have the overall working conditions in higher education improved or declined?)

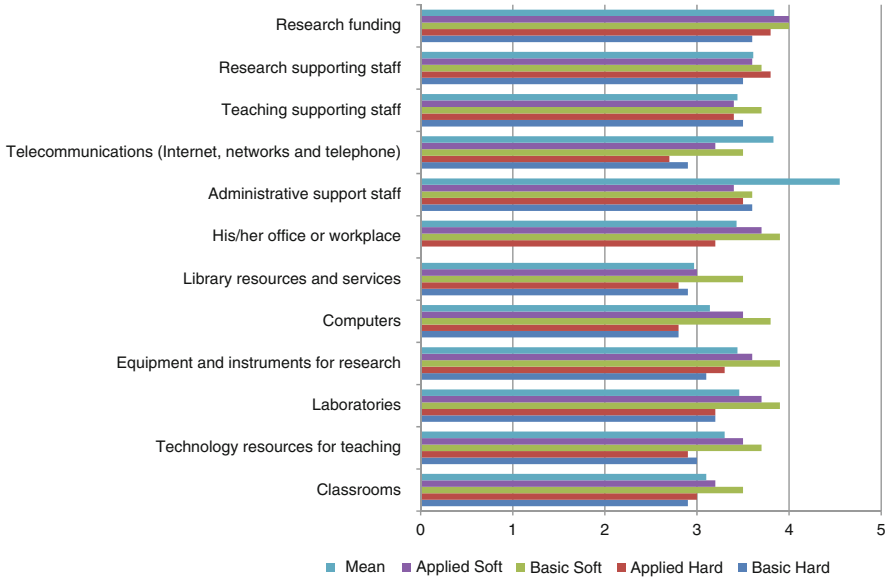

Fig. 13.5 Evaluation of the necessary aspects to carry out the work (Source: CAP survey question B.3. At this institution, how would you evaluate each of the following facilities, resources or personnel you need to support your work?)

This somewhat neutral perception about the change of research and teaching conditions does not agree with their assessment of the resources necessary for the academic work. The most negative views are seen in research funding (3.84) and research support (3.61) (Fig. 13.5).

From the view of the different disciplines, the analysis of these data shows that the average score given to the availability of administrative and staff support for

research is similar among the various disciplinary groups (between 3.6 and 3.5 for the first item and 3.5 and 3.7 for the second item).

However, there are significant differences between the hard and the soft sciences when it comes to the score assigned to other fundamental research resources. The academics from the soft disciplines, especially those in the basic soft ones, perceive a lack of resources such as laboratories (3.9), research equipment (3.9), computers (3.8), offices (3.9), and funds for research (4.0).

These perceptions pertaining the lack of resources are a reflection of the unfavorable conditions under which research activity takes place in an academic field that, only over the last decades, has been fulfilling the necessary qualifications (postgraduate degrees) and strategic knowledge in order to fight for resources in a highly scientific system which is centered around certain rules, logic, and qualifications that academics in the hard sciences handle.

13.5.5 Institutional Policies

The analysis of institutional policies shows us that the academics working in the hard and soft sciences agree on the fact that the *quality of research or teaching* has little to do with their job promotions. They would seem to believe that their academic future at the institution is not conditioned by the quality in their teaching practices or the quality of their research production. When we compare responses about incidence of research quality in decisions about staff, responses are closer to the negative side in the scale, being soft disciplines responses a slight more skeptical (3.54 soft, 3.33 hard). Similar results are obtained when teaching quality is considered, although responses are a little less skeptical both in global results and by soft (3.31) and hard (3.19) disciplines. This could indicate a tendency toward a greater skepticism about the policies for institutional stimuli on the part of soft science academics.

13.6 Conclusions and Discussion

To sum up, we point out that our study is based on the assumption that, in the last decades, the university profession in Argentina has developed under strong tensions bound—to the greater or lesser extent—to the possibility of combining teaching and research as duties attached to the academic condition.

The integrated task of teaching and doing research in Argentinean universities became markedly stronger among some of the disciplines that have a research tradition, namely, in both the soft and hard basic sciences. Meanwhile, teaching became the prevailing feature of the Argentinean academic body whose growth evolved side by side with the admission explosion, and was conducted with part-time contracts and with tasks that were limited almost exclusively to teaching.

The 1990s reforms had to deal with an academic profession based mainly on teaching practices that was largely done by assistants and teachers with little tradition in academic tasks. They had no postgraduate training and, in general, came from various other work fields. Therefore, it is plausible to consider that these professionals had to give up space to fit in an activity like research which bears a different logic from that of teaching. This also came along with a process of adaptation to new work regulations and evaluation systems that use devices typical of areas consolidated in research.

Survey results confirm that, regarding academic time distribution, all the informants state that they invest more time in teaching than they do in research during class terms and that, although during nonclass terms research does not increase inversely proportionate to the decrease in teaching hours, the group of activities inherent in research (project presentation, advancement reports, final evaluations, accounting for the resources used, participation in scientific conferences, etc.) weigh strongly in the everyday institutional life while being scarcely visible in terms of the real time they require and the time academics devote to it.

The various activities that make up the academic condition also include service and extension duties as well as management and governance, which are key areas for running universities. According to survey, these take up one third of the time professors devote to teaching and research, individually. The little time allotted to complex and prolonged tasks (ranging from participation in committees regarding various academic matters, in governmental bodies, and in the implementation of "concursos" to extension program design and management and service sales) also raises some questions.

Not surprisingly, the preferences and interests expressed by research-oriented academics in the hard sciences go hand in hand with the time distribution and the higher levels of preference. What does, however, call our attention is that teachers claim to feel more attracted to research when most of their teaching positions are part time. Furthermore, their intermediate rating with respect to certain assertions on productive and utilitarian scientific orientation does not allow for a more precise analysis as to how far they agree or disagree with them. These data could corroborate the idea that whoever does not do research feels outside the system of acknowledgement and distribution of material and symbolic rewards to which the Argentinean academic belongs. Beyond this general tendency, a majority acknowledges the strong bond between teaching and research and agrees that both activities are compatible. These answers could reassert that both activities are deeply rooted in the social imaginary of university professionals.

Teaching practices in Argentinean universities show that the institution is not in line with the technological developments of the times as it has failed to incorporate the necessary resources that reflect the new and prevailing ways to communicate and learn. Teaching seems to have stagnated in a stage that keeps its traditional characteristics, reluctant to innovation and, thus, fostering a sort of pedagogic reproduction. In this context, the decision to include new teaching strategies would seem a task purely taken on as a commitment to their activities teachers themselves have, rather than as an institutional policy. This leads us to the issue of whether the

lack of pedagogic innovation is related to the fact that, because teaching is not being affected by the new regulations on academic activity, it is being given free reign and left to the chair's self-regulation. If that were the case, the quality of teaching would depend on individual capacity, responsibility, and ethical commitment on the part of the members of each chair.

On the other hand, the types of research activities related to the *elaboration of academic papers* and the *paper work preparation of proposals for research subsidy* are more privileged tasks over the ones related to experimental or field work proper. The soft sciences are also seen as the ones that most broaden the gap between those two moments in the research work. This fact brings about a series of questions on how the over-demand to publish results could be conditioning the production of knowledge.

Most of the academics notice an improvement in their work conditions. Nonetheless, their views fluctuate between a sort of plateau when giving their opinion on how the general working conditions have varied over the years and a negative assessment they make of the shortage of resources needed to carry out the academic task that is nowadays demanded in the field of research (research funding and support). This lack acquires more emphasis among the academics in the soft basic disciplines.

Finally, the sampled academics do not believe that their academic future at the institution is conditioned by the quality of the teaching imparted or the quality of their research production.

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