

The Changing Academy – The Changing Academic Profession
in International Comparative Perspective 7

Peter James Bentley · Hamish Coates
Ian R. Dobson · Leo Goedegebuure
V. Lynn Meek *Editors*

Job Satisfaction around the Academic World

 Springer

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The Changing Academy – The Changing Academic Profession in International Comparative Perspective 7

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Scope of the series

As the landscape of higher education has in recent years undergone significant changes, so correspondingly have the backgrounds, specializations, expectations and work roles of academic staff. The Academy is expected to be more professional in teaching, more productive in research and more entrepreneurial in everything. Some of the changes involved have raised questions about the attractiveness of an academic career for today's graduates. At the same time, knowledge has come to be identified as the most vital resource of contemporary societies.

The Changing Academy series examines the nature and extent of the changes experienced by the academic profession in recent years. It explores both the reasons for and the consequences of these changes. It considers the implications of the changes for the attractiveness of the academic profession as a career and for the ability of the academic community to contribute to the further development of knowledge societies and the attainment of national goals. It makes comparisons on these matters between different national higher education systems, institutional types, disciplines and generations of academics, drawing initially on available data-sets and qualitative research studies with special emphasis on the recent twenty nation survey of the Changing Academic Profession. Among the themes featured will be:

1. Relevance of the Academy's Work
2. Internationalization of the Academy
3. Current Governance and Management, particularly as perceived by the Academy
4. Commitment of the Academy

The audience includes researchers in higher education, sociology of education and political science studies; university managers and administrators; national and institutional policymakers; officials and staff at governments and organizations, e.g. the World Bank.

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Chapter 1

Introduction: Satisfaction Around the World?

**Peter James Bentley, Hamish Coates, Ian R. Dobson,
Leo Goedegebuure, and V. Lynn Meek**

The initial working title of this book was *I Can't Get No....: Job Satisfaction Around the Academic World. Advice from the CAP Survey*. Intended as a play on the words of the Rolling Stones' classic 1965 hit, the publishers, however, felt that the editors were showing their age and that few readers born after 1960 would get the "joke". Nonetheless, the degree that academics are contented with and committed to their scholarly careers is increasingly becoming a key ingredient in social, cultural and economic well-being everywhere. A vibrant academic profession attracting the best and brightest of the next generation may indeed be what gives a nation a competitive edge in a global knowledge-based economy. Hit tunes may come and go, but the importance of academics' teaching and research efforts in producing highly skilled human capital and enhancement of innovation is an enduring feature of most if not all societies.

Given its importance, surprisingly little at an aggregate level is known about the people who teach and carry out research in universities, about the characteristics of the academic profession or about what is required to ensure its sustainability and future development. We do know, however, that there are a number of characteristics peculiar to the higher education and research sector: authority relationships are loosely coupled (Weick 1976) and goals are multiple and often ambiguous

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(Cohen and March 1974); organisational subunits are fragmented (Clark 1983), and the principal workers – “the academic professionals” – have a strong influence “on the determination of goals, on the management and administration of institutions and on the daily routines of work” (Enders 2006). Whilst acknowledging that there is debate over the degree to which academics constitute a profession in the classical sense and that insofar that there is an academic profession, it is one fractured by disciplinary tribalism (Becher 1989; Becher and Trowler 2001) and paradigmatic allegiance (Kuhn 1962); this book assumes that the academic community constitutes a field or collective worthy of analysis in its own right (Kogan et al. 1994; Graubard 2001; Levine 1997; Farnham 1999; Enders 2001; Altbach 2000). Perkin (1969) goes so far as identifying the academic profession as the “key profession” providing the knowledge base and certification for all other professions.

As higher education itself has grown and diversified in recent years, so has the academic profession. With the massification of student enrolments, universities no longer enjoy the privileges of their former elite status and neither do academics (Levine 1997). Under what Teichler (2003) terms post-massification, academics nearly everywhere are asked to work longer hours for less money relative to salary scales of a couple of decades ago and to that earned by other professional groups (Welch 1998; Ward and Sloane 2000). In many countries, the academic profession is increasingly insecure, more accountable, more differentiated, more internationalised and less likely to be organised along disciplinary lines. In most OECD countries, the academic profession is aging, whilst there is evidence to suggest that the most intellectually talented of the younger generation do not view an academic career as attractive as they once did (Harman 2003). Academics are asked to supplement their traditional functions of teaching and research with those of community relevance and entrepreneurial pursuits, clearly demonstrating to their institutional masters that they earn their salaries (Henkel 2001).

At the same time, they have lost some of their traditional autonomy of control over work time and output (Gappa 2001). “Overall trust in the self-steering capacities of academics as long-standing and deeply socialized professionals that are best left alone and only symbolically represented by institutional and governmental leadership is diminishing” (Enders 2006: 11). Whilst the number of students they each have to instruct rises, the resources per student for doing that task fall. The teaching task itself becomes more “professionalised”, requiring training and monitoring. Many of the teaching functions of tenured academics are being outsourced to lower-level casual contract staff (Clark 1997; Altbach 1997). Research is required to be strategic and relevant, whilst the presumed defining characteristic of university teaching informed by research is under challenge in several jurisdictions (Owen-Smith and Powell 2001; Rip 2004). A private higher education sector has become more prominent in many parts of the world, and new approaches to governance and management are evolving in both private and public sectors. Some argue that the very definition of an academic has become ambiguous, as have the boundaries between academic jobs and the jobs of other professionals, both within and beyond the walls of the academy (Asking 2001).

There are complaints that academic professionals are being turned into mere knowledge workers (Newson 1993), that the rise of the entrepreneurial university (Clark 2004) has turned some academics from the values of scholarship to those of academic capitalism (Slaughter and Leslie 1997) and that the academic profession is an endangered species (Graubard 2001; Delbanco 2005). It is a profession that “seems to have lost some of its political standing and bargaining power with society” (Enders 2006: 4).

With expansion of higher education has come increasing differentiation, increasing expectations from society and an evolution of professional roles that may take academics away from their original disciplines towards new forms of identity and loyalty. At the same time, knowledge has come to be identified as the most vital resource of contemporary societies, and many nations have taken great strides to improve their capacity for knowledge creation and application. This new devotion to knowledge has both expanded the role of the academy and challenged the coherence and viability of the traditional academic role (Rothblatt 1997).

Whereas the highest goal of the traditional academy was to create and transmit fundamental knowledge, what has been described as the “scholarship of discovery”, the new emphasis of the knowledge society is on useful knowledge or the “scholarship of application”. This scholarship often involves the pooling and melding of insights from several disciplines and tends to focus on outcomes that have a direct impact on everyday life. One consequence is that many future scholars, though trained in the disciplines, will work in applied fields and may have options of employment in these fields outside of the academy. This provides new opportunities for career mobility and knowledge transfer amongst sectors whilst it may also create recruitment difficulties in some areas and especially in fields such as science, technology and engineering. Moreover, pressures on the academic profession need to be seen in the light of the changing nature of work in the knowledge society generally (Gibbons et al. 1994; Nowotny et al. 2001), as well as a wider questioning of professional authority within society (Henkel 2001).

Despite global pressures, national traditions and local socio-economic circumstances continue to play an important role in shaping academic life and have a major impact on career attractiveness. Yet today’s global trends, with their emphasis on knowledge production and information flow, play an increasingly important role in the push towards the internationalisation of higher education (Marginson and Rhodes 2002). The international mobility of students and staff has grown; new technologies connect scholarly communities around the world; and English has become the new lingua franca of the international community.

The economic and political power of a country, its size and geographic location, its dominant culture, the quality of its higher education system and the language it uses for academic discourse and publications are factors that bring with them different approaches to internationalisation. Local and regional differences in approach are also to be found (Currie et al. 2003; Amaral et al. 2003). The lucrative international student market puts new pressures on the academic profession. The functions of international networks, the implications of differential access to them

(including student markets) and the role of new communication technologies appear to be internationalising the profession in various ways.

In academic teaching and research, where professional values are traditionally firmly woven into the very fabric of knowledge production and dissemination, attempts to introduce change are sometimes received with scepticism and opposition (Enders and Teichler 1997; Trowler 1998). At the same time, a greater professionalisation of higher education management is regarded as necessary to enable higher education to respond effectively to a rapidly changing external environment. The control and management of academic work will help define the nature of academic roles – including the division of labour in the academy, with a growth of newly professionalised “support” roles and a possible breakdown of the traditional teaching/research nexus. New systemic and institutional processes such as quality assurance have been introduced which also change traditional distributions of power and values within academe and may be a force for change in academic practice.

In summary, then, over the last few decades a host of complex but mostly inter-related factors have brought pressure to bear on the academic profession in all countries. Beside some anecdotal evidence, however, little is known about how the academic profession is responding to the pressures and changing environmental conditions outlined above, particularly from a comparative perspective. To this end, this book examines the academic profession internationally focusing on the organising concept of “career satisfaction”.

Researchers from 11 countries accepted an invitation to participate in this project, using data drawn from their participation in the recent international survey of the Changing Academic Profession – or CAP survey. CAP involves a common survey of academics in 18 countries from 5 continents. CAP national experts from the following countries contributed to this book: Argentina, Australia, Brazil, Canada, Finland, Germany, Japan, Malaysia, Portugal, South Africa and the United Kingdom.

Taking academics’ impressions of their job satisfaction as the focus, contributors were asked to address a number of dimensions that may influence satisfaction, such as:

- For those countries with a binary system of higher education, is there a difference in academics’ attitudes from either side of the binary divide?
- Are there different levels of satisfaction based on seniority?
- Are there different levels of satisfaction based on gender?
- Are there different levels of satisfaction based on both seniority and gender?
- Does the discipline have an impact?
- Do academics with a preference for teaching over research have different opinions?

The national experts were asked to build their analysis around the job satisfaction questions from the CAP survey and the variables that lead to lower or higher job satisfaction in their country. Where relevant, the contributors were asked to consider a number of composite indices based on the relevant CAP survey questions (these are specified in the individual chapters as appropriate).

The following country chapters examine the nature of academic job satisfaction and the role it plays in academic attitudes about their profession in each of the countries.

The concluding chapter attempts a comparative analysis of the data present in each country-specific contribution.

The country chapters begin with Argentina. The academic profession in Argentina shares some common characteristics with other Latin American countries, such as low salaries and high levels of part-time staffing. Therefore, most teachers do not conduct research in addition to teaching. The low teaching salary levels have been another feature of Latin American university conditions. The academic profession in Argentina, in the context of Latin America, is a profession at the periphery, dependent on the main centres of knowledge and scientific networks worldwide.

The Argentina CAP survey comprised all academics in public universities, i.e. those teachers in any position and time devoted to work, as the target population. Satisfaction in this chapter is measured by considering responses to 33 questions grouped into eight items, based on overall satisfaction, physical infrastructure, service provision, teaching- and/or research-related issues, influence, support and the “would I do it again” question.

Compared with other countries, Argentina has an overall satisfaction value similar to the international average, and it is significantly above that average when considering career improvement. The Argentina data suggests that the closer environmental and career conditions are to international standards, the greater is the satisfaction with academic work.

Studies of job satisfaction in Australian universities have routinely offered a somewhat depressing image of life in the academy, calling into question the sustainability of an industry reliant upon autonomously motivated knowledge workers. For universities to reverse the despondent outlook of their academic staff, one must pay attention to their primary sources of satisfaction and dissatisfaction. The purpose of this chapter is to examine the factors associated with job satisfaction amongst Australian university academics, with reference to Hagedorn’s (2000) conceptual framework.

Satisfaction tends to be higher amongst those who have recently been promoted and lower amongst mid-career academics. And Australian higher education has experienced profound change over the last 15 years in all areas that matter to its primary functions of teaching and learning and research: financial resources, competition, volume of students and the diversity of the student body, accountability, regulation and governance.

At the same time, the core issues identified in this chapter are not new. The degree of satisfaction has been an issue for concern since the early 1990s, and academic time spent on nonacademic activities and the perceived inability to spend sufficient time on research have been persistent factors contributing to these relatively low levels of satisfaction. It would be very difficult to ignore management responsibility for “cumbersome administrative processes” as it would be equally difficult to deny institutional management and academic leadership responsibility for both a reasonable work-life balance and a reasonable workload distribution that reflects both institutional/departamental needs and staff interests and abilities. There are persistent issues that look unlikely to be resolved in the very near future. This, first, raises the question of what this means for Australian academe in the coming

years and second, what the implications are for the governance and management of the university system and its institutions.

Brazilian higher education is a known case of extreme diversity with 89% of its more than 2,300 institutions being private. Institutions range from small, family-owned, professionally oriented schools to huge research universities with budgets of more than two billion dollars a year. This diverse institutional environment creates differences in opportunity and expectations amongst academics and is relevant to understanding variations in the general satisfaction academics hold towards different aspects of their professional life.

One would expect that job satisfaction of academics would vary according to the type of institution in which they work. Surprisingly, in Brazil satisfaction tends to be uniformly high regardless of the institutional setting. Moreover the patterns of distribution of answers to questions that cover different aspects of job satisfaction tend to be the same, regardless of the huge differences in contracts and working conditions.

Each kind of institution is marked by a particular environment and promotes different values. So, for academics working in different types of institution, job satisfaction is linked to different dimensions of academic life. Satisfaction is related to specific strategic dimensions that vary from one type of institution to another and define the institutions' place within the country's higher education system. Brazilian academics generally expressed a great degree of satisfaction with their job conditions, and it appears that academic institutions in Brazil continue to be successful in attending to their academic staff's core expectations.

Full-time academics working at Canadian universities reported high levels of job satisfaction. In responding to a direct question on job satisfaction, approximately 74% of academic staff indicated very high or high levels of satisfaction, and less than 10% reported low or very low levels of satisfaction with their current job. The vast majority of respondents also reported that they were pleased with their career choice. Approximately 77% of respondents disagreed or strongly disagreed with the statement "if I had to do it over again, I would not become an academic", whilst just over 11% of respondents agreed with the statement and roughly the same number provided a neutral response.

High levels of satisfaction with their current position were tempered by less positive responses to questions focusing on change over time, job strain and perceptions of the future. Almost 40% of respondents indicated that the overall working conditions in higher education had deteriorated over the course of their careers, and only 23% reported that working conditions had improved (with 38% providing a neutral response). When asked whether "this is a poor time for any young person to begin an academic career", almost 45% of respondents disagreed, whilst 35% provided a positive response. Approximately 42% of academics indicated that their job was a source of considerable personal strain, whilst 31% disagreed with the statement. In terms of overall job satisfaction, Canadian academics are satisfied with their jobs, but some believe that working conditions are not what they used to be and there are concerns about the future.

Finland's higher education system is a binary one, built around institutions known as the "university" and the "polytechnic". In contrast with recent higher

education history in other countries, the Finnish binary system was a recent creation, with polytechnics having just reached their twentieth anniversary. The polytechnics now refer themselves as “universities of applied sciences” but were established to provide vocationally oriented education and training. They were established primarily as teaching institutions, and in contrast with university academics, polytechnic teachers must hold a formal teaching qualification. However, no Finnish higher education institutions are “teaching-only”, and they are increasingly the source of applied research. Academics from both sectors were included in the CAP survey.

This organisational dichotomy might seem to be an important backdrop to academic job satisfaction in Finnish higher education, not the least because of the different orientation between teaching and research. At Finnish universities, 20% of academics indicated a preference for teaching, compared with 78% of polytechnic academics. However, in spite of this major sectoral difference, overall job satisfaction of academics turned out to be quite similar. Around two-thirds of Finnish academics, whether from universities or polytechnics and whether their personal leanings were towards teaching or research, announced that their overall job satisfaction was very high or high. Lower proportions of teaching- or research-oriented university academics would become an academic again, compared with their polytechnic counterparts.

“German academics are not among the most highly satisfied academics in comparative perspective”, so starts the conclusion of the German chapter. In fact, their satisfaction corresponds with the average of the 18 participating countries in the original CAP survey. However, this result averages out differences within German universities, universities of applied sciences and research institutes, from whence the sample was drawn. Both senior- and junior-ranked academics from public research institutes were clearly more satisfied than academics from the other two groups.

There were gender-based variations in the sample, with women being less satisfied than men, but academics with a preference for research and spending a relatively high proportion of their time on research tended to be more highly satisfied than those with academic jobs with a teaching emphasis. Employment conditions per se did not seem to have a strong influence on overall satisfaction.

The Japanese study produced a number of variables that seemed to lead to higher levels of satisfaction. Women who represent only 18% of the academic population in Japan and only 9% of the Japanese CAP survey sample tended to be less satisfied than their male colleagues, as did older academics. This latter fact matches with academic rank, and about 78% of senior academics reported being very satisfied or satisfied, compared with 59% of junior academics. There was little difference in satisfaction whether academics’ preference was for teaching or research. About 70% of both groups reported being very satisfied or satisfied.

Malaysian higher education has been going through a period of change, with developments that are parallel to those in other parts of the world. Malaysian universities are increasingly emphasising the control of academic work, through the advent of “low-trust” managerialism and managerial styles. Increased workloads and stress are reportedly having an impact on job satisfaction. Dissatisfied staff are

more likely to withdraw from being active in the workforce and to disengage from decision-making, and they avoid mentoring junior colleagues.

The Malaysian study has brought out a number of correlations built on binary subpopulations, such as that there is a ten percentage point difference between the job satisfaction experienced by women (about 60%) and men (about 70%). A gender-related gap exists in higher education and research institutes. Gender-based differences occur across most of the variables that relate to physical infrastructure, teaching-related services and research-related services, with women reporting lower satisfaction levels.

Female academics' perceptions of influence also differ from their male colleagues' opinions, with fewer women thinking they have influence in shaping key academic policies. They also rate communication from management and rate management attitude to teaching and research as being lower. Overall, however, Malaysian academics reported being satisfied, despite dissatisfaction with aspects of infrastructure and service provision.

Like Finland, Portugal has a higher education system that includes universities and polytechnics, and these can be differentiated by their goals, degrees and research orientation. However, Portugal also has public and private institutions, leading to a system of considerable diversity. Whereas academics in public institutions are public servants, the private sector has no regulations for "private" academics. Portuguese academia is also becoming increasingly feminised, with women comprising over 43% in 2010.

In terms of overall job satisfaction, Portugal ranks towards the bottom end on the international continuum, even if more than 51% claimed to be very satisfied or satisfied. Portuguese male academics are more satisfied than their female colleagues, and only female academics from the United Kingdom reported lower levels of satisfaction.

The overall job satisfaction of South African academics (aggregate) tends to be moderately high on average. Job satisfaction increases with rank, but at management level (director) it decreases again. Academics who are more interested in teaching are more satisfied than those who are more inclined to research. Female academics are more content than male academics. Job satisfaction decreases with age (the reversal of this trend for the 61-year-plus group might be ascribed to the fact that many of those in this group are emeriti who voluntarily stayed on after retirement age, in positions and assignments of their liking). No correlation could be found between years of employment in higher education and overall job satisfaction.

The academic profession in the United Kingdom consists of a diverse range of academic staff both in their demographic profile and in the roles they undertake. Often treated as a homogeneous entity, individual academics are positioned within much of the existing literature on the United Kingdom governance and management as rational actors, performing largely similar roles and operating on the basis of a core of common academic and collegial values. The UK chapter argues that academics differ in their responses to the changes and new influences in higher education. With the expansion of the United Kingdom higher education system,

there has been an increase not only in the number of young people entering the profession via the traditional route but also in the numbers of staff entering the profession at a later stage in their working lives, having already pursued a career in another profession. Analysis of “the academic profession”, therefore, needs to take into account at least these disparate groups of academics.

Compared with other countries participating in the CAP study, job satisfaction amongst the United Kingdom academics appears to be low, with only 45% of respondents describing their overall satisfaction with their current job as high or very high. However, young academics appear to be the most satisfied and the least dissatisfied, whilst the group of older, established academics appear to be the least satisfied and the most dissatisfied.

The conclusion to this volume examines job satisfaction from an international comparative perspective for the 11 countries presented in the previous chapters, plus the USA. The analysis draws upon Hagedorn’s (2000) Conceptual Framework for Academic Job Satisfaction and uses the CAP data to examine whether this framework (developed from an American context) is applicable to other countries. The results suggest that, whilst academics in English-speaking countries differ in their mean responses to the state of the academic profession and their individual job satisfaction, they share similar conceptions for how job satisfaction is related to job-related personal strain, the prospects for young academics and their choice to become an academic. By contrast, in other countries, such as Japan, self-reported job satisfaction is unrelated to personal strain or other views on the state of the profession. Taking a restricted definition of job satisfaction, a single question for self-reported satisfaction, the OLS linear regression results suggest that Hagedorn’s framework is more applicable to the USA, the UK and Australia, and to a lesser extent Brazil, Canada and Germany. Despite the weakness of the model in explaining variation in job satisfaction in the remaining countries, some common international patterns emerge from the results. Satisfaction with institutional resourcing is strongly associated with job satisfaction across all 12 countries. As a group, a combination of environmental variables (e.g. perceived student quality, personal influence on departmental decision-making and satisfaction with administrative processes) explains the greatest proportion of variance in job satisfaction in most countries. The variability across countries indicates that job satisfaction contains many culture-specific elements which are difficult to capture through a standardised international survey.

Academic job satisfaction, or more specifically, many of the factors influencing satisfaction, appears to be, at least in part, culturally and contextually determined. This for years to come will remain a rich area for research on job satisfaction generally and that of the academic profession specifically – an area in which this book makes an important contribution. That said, the global characteristics of the profession need emphasising as well. From the very beginning, the academic profession was by necessity internationally mobile as its members tramped between Paris and Bologna for higher learning and a bit later to Oxford and Cambridge. Now, academe is one of the most internationally mobile of all professions, and the most rapidly growing area of investment in research and innovation is in global research networks.

Universities wishing to be internationally competitive must attract and retain the best brains in the world, and as the chapters in this book consistently stress, their leaders will be wise to listen carefully when their staff hum the tune “I can’t get no satisfaction”.

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Chapter 2

Academic Work at the Periphery: Why Argentine Scholars Are Satisfied, *Despite All*

Mónica Marquina and Gabriel Rebello

2.1 Introduction

The academic profession in Argentina can be differentiated from those in the industrialised nations, but it shares some common characteristics with other Latin American countries. Academic staff in the region have traditionally been dominated by part-time staff; therefore, most teachers do not conduct research in addition to teaching. The low teaching salary levels have been another feature of Latin American university conditions. But beyond these characteristics, there are others related to the dependence on the centre. The academic profession in Argentina, in the context of Latin America, is a profession at the periphery. Patterns of academic work in industrialised countries set the standards worldwide, and Latin American academic systems are influenced from the north. Thus, Argentine scholars, like those of other peripheral countries, are dependent on the main centres of knowledge and scientific networks worldwide, with great inequality regarding resources and infrastructure. Academic staff around the world is increasingly becoming part of a global academic community. In this context, developing countries are at the bottom of a global system of unequal academic relationships (Altbach 2004).

A quick glance at the international scene shows that Argentine academics, despite these conditions, have an average level of satisfaction compared with the rest of the countries in the Changing Academic Profession (CAP) survey. Argentina ranks third among the countries whose academics perceive that working conditions had improved when compared with the beginning of their academic careers. These data must be analysed in context and in depth in order to find explanations for these perceptions.

The purpose of this chapter is to link the level of satisfaction of Argentine academics with the characteristics of the academic profession in a peripheral country.

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Why, despite these conditions, are the academics in Argentina quite satisfied? Which are the most satisfied? To what extent are satisfaction levels linked to the degree of approximation of their working conditions to international standards?

2.2 Theoretical Framework

The study of the satisfaction of academics in Argentina is an unexplored area, unlike other countries in the region such as Mexico (Galaz-Fontes 2002; Padilla González et al. 2008). Studying the emotional state resulting from the appreciation of the work or from the work experience (Locke 1976) of university professors not only allows us to know more about the academic profession but also provides insights for improvement of institutions of higher education. Although it has been shown that there is no direct relationship between employee satisfaction and specific consequences such as productivity or staff turnover, more satisfied workers tend to show more pro-organisational behaviour (Kalleberg 1977), including greater adaptability, cooperation and openness to change. Therefore, knowing their perceptions of their work helps to detect problematic areas in the organisation and to develop relevant alternative solutions (Galaz-Fontes 2002).

Depending on the point of reference, job satisfaction can be studied comprehensively, such as when examining the work as a whole, or specifically, when exploring particular aspects of the work. This chapter considers both forms of approach to the study of satisfaction. Hagedorn (2000) used several individual and environmental characteristics to construct a conceptual framework of academic job satisfaction. She divided the variables that contribute to job satisfaction into two main categories: mediators and triggers. In this chapter, we consider individual and environmental variables of the ‘mediator’ component of Hagedorn’s model, which function as predictors of satisfaction. According to Sabharwal and Corley’s (2009) classification, we can also distinguish three types of variable: demographic, institutional and career.

Within this background, we considered variables that construct three different groups of scholars: two groups belonging to what we have called for Argentina the ‘elite circle’, that is, young and mature scholars who, because of their work situation, are part of the global academic world and take advantage of external incentives, and the remaining vast majority of academics who are part of the periphery (Altbach 2004). The ‘periphery’ group are there for two reasons: they are Argentineans, and they are not part of the Argentina’s elite academic circuit. These variables were cross tabulated with perceptions about the environmental conditions of academic work (Hagedorn 2000).

2.3 The Academic Profession in Argentina

The academic profession in Argentina belatedly begins to take shape towards the middle of the twentieth century. The period 1955–1960 constituted a stage of highly significant qualitative growth that had a profound impact on what at that time could

be described as a clearly identifiable academic profession. It was a time notable for scientific and academic advances, whereby the academic profession clearly advanced towards a strong identity in terms of its disciplinary relevance more than the merely institutional. Heterogeneity, successive institutional disruptions and government interventions in university life, plus the unplanned expansion of the teaching body as a product of the expansion of student enrolments, appear as the main features of the Argentine academic profession.

Another characteristic of academic staff in Argentina is related to the majority presence of part-time teachers (10 h weekly), the proportion of which reached more than 60% and are supposed to devote their time only to teaching tasks. More than 20% have a semi-full-time position (20 h/week), and only 15% are full-timers (40 h/week).

Unlike other countries in the world and also in the region, the possession of a graduate degree is not a generalised condition among Argentine academics. Only 23% have doctorates and the possession of a master's is the case for a similar proportion (Marquina 2009).

The chair¹ is the type of organisation of academic work which predominates in universities, above all in the most traditional. Under this scheme, an academic career is composed of a series of five positions organised hierarchically, distinguished principally into the categories of junior academics or 'auxiliary staff' and senior academics or 'professors'. In theory, the first group takes responsibility for coordinating the work of groups of students' practical assignments and at the same time attends theory classes which are under the supervision of professors.

In general terms, access to positions is decided on by a mechanism termed 'contest of work record and opposition', in which the institution makes an open call for the occupation of a position and selection is made by a board of evaluators composed of peers with positions higher up the hierarchy. In the case of professors, duration of the obtained position extends to 6 or 7 years, at which time an open contest is called to refill the same post. In the case of auxiliary teachers, the time period is shorter. The teaching contest gives to the teacher 'regular' status, or stability, for the duration of the position. This status implies that the teacher cannot be removed – except in extreme circumstances – and that she/he has acquired 'university citizenship', which allows her or him to choose and to be chosen to be on the different bodies or to occupy positions of university governance. Thus, the complexity of this 'contest' mechanism lies in its double impact of quality for academic activity and its political consequence.

Another feature of the Argentinean academic profession is the low level of salaries. Although, on average, university institutions dedicate more than 85% of their budget

¹ 'Cátedra' is the Latin word for chair as in the ones used in medieval universities from which to give lectures and is the traditional organisational way of being employed in universities. Every academic, from assistants to full professors, takes part in one or more cátedras and has different tasks assigned to them according to their rank. Full professors are heads of cátedras and are entitled to determine subject curricula and give lectures ('teóricos'), while assistants usually carry out laboratory duties or small-group discussions.

to personnel expenses and that in recent years teacher remuneration has increased substantially after being frozen for a long period, academic salaries continue to be low today. In spite of this panorama and the limited resources available for research, the greater part of the scholarly output in the country, which translates into more than two-thirds of articles published, is produced in national universities.

On the basis of the neoliberal paradigm, the government which took office in 1989 implemented a political agenda for the sector which was clearly set within the international trends of the era, placing the emphasis on the efficiency of the institutional administration and improvement in educational quality. These policies have modified academic work, their socialisation mechanisms and their practices. Thus, a 'type' of academic began to be fostered, characterised by having a high level of graduate education and the requirement that teaching and research duties be developed (Marquina and Fernández Lamarra 2008).

Within this framework, academic activity started to be evaluated according to criteria of productivity in research – more than in teaching – with different incentives and regulations being introduced, which have begun to form themselves into an academic work model that was previously limited to certain specific disciplines. Since then, new options appeared for obtaining research funds or for the specific development of programmes, assigned competitively to institutions or research teams. Even with changes in the national administration and their political paradigms, the new academic model has gone on to form part of practices already imposed on the sector by the Ministry of Education. Thus, the new courses of action for assigning funds had an influence on the activity of a minority of academics. This is because the multiple 'calls' for competitive funds have begun to generate the practice of the design of projects, the filling in of forms and the preparation of reports, arising from initiatives that do not necessarily have anything to do with the mission or institutional priorities but do have a connection with government policies.

2.4 About the Sample and How Satisfaction Was Measured

The Argentina CAP survey comprised all academics in public universities, that is, those teachers in any position and time devoted to work, as the target population. This demarcation is justified by the fact that the private sector is marginal both in terms of students and of teachers, that the information on this reduced number of teachers is non-existent, and that on the whole these teachers also fulfil duties in public universities. As for these, the wide nonuniversity spectrum of higher education acquires characteristics far removed from what is considered academic activity since they have contracts per class hour, they do not carry out research, and their activity is closer to that of a secondary school teacher than to that of an academic. Defining the sample of 826 respondents occurred in a single step, on the basis of the official database of 119,000 teachers available from the System of University Information (SIU) of the National Ministry of Education, Science and Technology in 2007.

The distribution of respondents in the sample was similar to that of the total sample except in the case of full- and part-timers, where there was a bias towards full-time teachers among the respondents. Although other variables such as gender or position were weighted in the international database as a decision of all CAP teams, this specific characteristic of Argentine academic profession remained unmodified, so the existence of a small bias has to be considered in international studies such as this.

Satisfaction in this chapter has been measured by considering responses to 33 questions grouped into 8 items, as outlined in Table 2.1:

These questions were answered on five-point Likert scales for 30 of the questions and a four-point scale for the other three. (The three questions regarding personal influence were stated with a four-point scale of value as well as a ‘not applicable’ option which was different from ‘not influential at all’ (one of the valid answers)). The ‘not applicable’ option was not chosen in Argentina survey, so it was not considered. The answers were rearranged to give the highest scores to the highest levels of satisfaction. Thus, a general index could be made by adding all responses, resulting in a scale of 0–162 points, where observed cases range from a minimum of 31 points to a maximum of 125. The sample has a mean of 76 and a standard deviation of 16.28. As shown in Fig. 2.1, total satisfaction has a similar distribution to normal (with kurtosis of 0.361 and skewness of 0.131) that is slightly above the middle of the scale:

For this chapter, responses were analysed according to a series of variables which are considered important in the Argentine system and might define a specific academic profile of people who benefit most and, therefore, belong to an elite academic circle. In particular, we wanted to find out if two of the groups of academics might be adaptative to recent policies and more satisfied with changing conditions. Those variables characterise the position reached within university ranks (academic rank, full- or part-time employment and highest degree obtained) and involvement in research (actual research participation, collaboration with peers, research-teaching preference). In addition, age was taken into account to profile future high-rank academics. These variables showed similar patterns in correlations with the indexes used in order to measure satisfaction. While most of them showed a significant correlation – ($p < 0.05$) using both Spearman’s rho and Kendall’s tau-b – with research-related and influence-related satisfaction, two of the variables in the first group (rank and time) also display significant correlation with indexes used to describe satisfaction with physical, teaching and research-related conditions (and overall satisfaction too).

The first group, identified here as ‘Group A’, comprises academics who have the highest scores in variables which represent immersion in academic life and institutions. Group A members are those aged more than 35 years old who are seniors, have a full-time position, have a graduate degree, take part in research, prefer research over teaching and collaborate with peers abroad. This group, referred to here as the ‘consolidated’ group, represents 12.1% of the total.

The second group, ‘Group B’, consists in the younger academics (up to 35 years old) with up to an assistant professor position, who have expressed a preference for

Table 2.1 Grouping of 'satisfaction' questions

Item	Sub item	Questions
Overall Satisfaction/improvement conditions [#]		How would you rate your overall satisfaction with your current job? Since you started your career, have the overall working conditions in higher education improved or declined?
Physical job satisfaction	Physical infrastructure	How would you evaluate... ... classrooms? ... computer facilities? ... office space? ... telecommunications?
	Service provision	... technology for teaching? ... secretarial support? ... teaching support staff? ... research support staff?
	Teaching related issues	... classrooms? ... technology for teaching? ... teaching support staff? ... laboratories? ... library facilities?
	Research related issues*	... research equipment? ... research support staff? ... research funding?
Influence = satisfaction		How influential are you, personally, in helping to shape keyacademic policies at department level? ... at faculty/school level? ... at institutional level? Top-level administrators are providing competent leadership. I am kept informed about what is going on at this institution.
Support = satisfaction		At my institution there is... ... good communication between management and academics. ... collegiality in decision making. ... a strong performance orientation. ... a cumbersome administrative process. ... a supportive attitude towards teaching. ... a supportive attitude towards research. ... professional development for administrative/management duties for individual academics.
Would I do it again?		This is a poor time for a young person to begin an academic career in my field. If I had it to do over again, I would not become an academic. My Job is a source of considerable personal strain.

[#]The question on overall job satisfaction in research institutions does not apply to sampling conducted in the country

*This item and the previous one have a question repeated each, as they consist of indicators used for more than one item

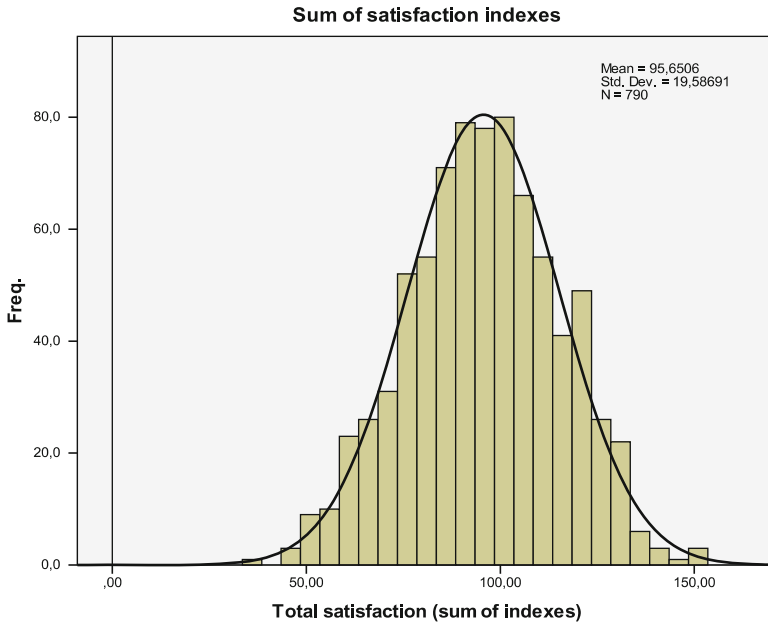


Fig. 2.1 Satisfaction indexes

research over teaching, who were at that time working in research and who have obtained a graduate degree. This group accounts for 3% of the sample and is referred to here as ‘the heirs’.

2.5 Argentina’s Academic Job Satisfaction at a Glance

As can be seen in the tables below, while the general perception about satisfaction seems positive, particularly concerning recent improvements, academics in Argentina do not perceive specific aspects of their jobs as an important source of satisfaction. Physical conditions, service provision, teaching and research issues and institutional support are regarded as unsatisfactory. However, they would choose to be academics again in significant numbers. This may indicate a vision of the academic profession as negative in terms of working conditions but having a favourable reception of recent policies, such as salaries and other benefits. Both factors (historic conditions and recent changes) might be tipping the scale to opposite ends, resulting in a balanced opinion (near 2.5) for most of those specific items (Table 2.2).

Compared with other countries, Argentina has an overall satisfaction value similar to the international average, and it is significantly above that average when considering career improvement. It is also well ranked regarding influence on

Table 2.2 Argentina satisfaction percentages and indexes

Item	Argentina value	Internat. average	Argentina rank
Overall satisfaction high or very high (%)	64.80	64.20	9
Career is improved or very improved (%)	45.60	30.30	5
Physical infrastructure index ^a	2.82	3.46	18
Service provision index	2.55	2.89	18
Teaching-related index	2.76	3.24	18
Research-related index	2.37	2.64	15
Influence index	3.14	2.92	2
Support index	2.84	2.88	14
Do it again index	3.87	3.34	3

^aThis and following indexes are expressed in a 1–5 scale. For comparisons among countries, influence questions were converted to a five-point scale with ‘not applicable’ as a value

institutional decisions and also in attitudes about choosing the academic profession again. However, there are other items where values are significantly lower than the international average. In three of the items, Argentina is placed last (physical infrastructure, service provision and teaching-related issues), while in a fourth it is among the last three (research-related issues).

2.6 Going Deeper: Differences Between Academics

Although responses indicate a general trend, they vary according to the place academics occupy within universities. The hypothesis behind the recognition of the two groups mentioned above was that their members may be more satisfied than the rest because they take more advantage of new opportunities linked to the ‘academic world’. However, we also wanted to look at possible differences between them, that is, different levels of satisfaction in accordance with their young or mature trajectory. Therefore, considering these people as a benefited minority (near 15% of total), they raise the mean satisfaction level of all academics, most of which are less satisfied. With this hypothesis on hand, we analysed data and found the results that follow. For comparison purpose, the following tables present data divided by medians in order to render the variable as dichotomies and to contrast which percentage of individuals within groups is placed nearer the top or bottom.

Overall Satisfaction: Considering all indexes aggregated and differentiating by the two identified groups, a significant difference can be observed between Group A (consolidated academics) and Group B (the heirs). More than 60% of Group A are above median, while a significant 57% of members of Group B are below. This shows that younger academics, those located on the road towards a promising academic

Table 2.3 Sum of satisfaction indexes by belonging or not to elite circle

		Elite circle (%)		
		Group A	Group B	The rest (%)
Sum of satisfaction indexes	Below median	38.8	57.1	50.6
	Above median	61.2	42.9	49.4
Total		100.0	100.0	100.0

Table 2.4 Overall satisfaction compound index by belonging or not to elite circle

		Elite circle (%)		
		Group A	Group B	The rest (%)
Overall satisfaction compound index	Below median	38.8	61.9	56.4
	Above median	61.2	38.1	43.6
Total		100.0	100.0	100.0

Table 2.5 Academics with very high or high overall satisfaction (by belonging or not to elite circle)

Elite circle (%)			
Group A	Group B	The rest (%)	Total (%)
74.8	52.4	62.1	64.8

career, are less satisfied, even in relation to the majority of academics that are not going down that road (Table 2.3).

This trend is maintained when considering overall satisfaction and perception about improvement conditions. Indeed, more than 60% of Group A, the more consolidated academics in the elite circle, is satisfied above the median. However, heirs of Group B show exactly a reverse satisfaction level: more than 60% are below the median. This group is less satisfied than their elders and even less than the rest of the academics who are out of the academic elite circle, whose overall satisfaction level is 56.4%, below the median (Table 2.4).

Therefore, analysis of the first item linked to overall satisfaction partly confirms our hypothesis. While consolidated academics have a considerable level of satisfaction that assists in raising the general level, young people who are entering the circle elite, are apparently less optimistic about their career, are less satisfied. Indeed, distinguishing between groups makes it possible to question the significance level of overall satisfaction that is presented in an aggregated analysis of the total sample (Table 2.5).

Physical Job Satisfaction: Another trend can be recognised in the analysis of data related to the physical conditions of academic work. Both groups show satisfaction over the median for physical infrastructure conditions in which they work. Even though younger academics show a lower percentage (52.4%) compared to

Table 2.6 Satisfaction with physical infrastructure conditions compound index by belonging or not to elite circle

		Elite circle (%)		
		Group A	Group B	The rest (%)
Satisfaction with physical infrastructure conditions compound index	Below median	40.8	47.6	51.0
	Above median	59.2	52.4	49.0
Total		100.0	100.0	100.0

Table 2.7 Satisfaction with service provision compound index by belonging or not to elite circle

		Elite circle (%)		
		Group A	Group B	The rest (%)
Satisfaction with service provision compound index	Below median	56.3	66.7	53.1
	Above median	43.7	33.3	46.9
Total		100.0	100.0	100.0

their older colleagues (59.2%), both are above the rest of the academics who do not belong to the elite circle. This positive perception is probably linked to the increased availability of resources in recent years for research aimed at this small privileged academic sector, which undoubtedly is marking a clearly perceived ‘before and after’ in relation to resources for research (Table 2.6).

Perceptions of service provision (which includes technology for teaching, secretarial support, and teaching and research support staff) present a different scene. Neither privileged group is satisfied with this provision, a view that is represented by 56.3% below the median for the case of consolidated scholars and 66.7% for the youngest. While for the rest of academics – that is, those that are not in the elite circle – opinion about the provision of services is more evenly distributed between positive and negative responses, most academics of the elite circle believe that this service should be better. And in this context, younger scholars are those who are most dissatisfied (Table 2.7).

On the contrary, it is interesting to point out that these two groups have a positive perception of working conditions related directly to teaching. While 53% of most scholars, outside the elite circle, show a level of satisfaction over the median, this positive perception is located between 60 and 63% for academics from both elite circle groups. In this item, our hypothesis is confirmed: the academic elite circle raises the aggregate satisfaction level on issues related to teaching (Table 2.8).

This trend of increased satisfaction of academics belonging to the elite circle manifests more sharply on issues related to research. While 54% of academics who are outside the elite circle are satisfied above the median regarding the conditions for research, consolidated academics are in more than 60% above median. And surprisingly, this percentage rises to 66% in the case of ‘the heirs’, that is, young people in the academic track (Table 2.9).

Table 2.8 Satisfaction with teaching-related issues compound index by belonging or not to elite circle

		Elite circle (%)		
		Group A	Group B	The rest (%)
Satisfaction with teaching-related compound index	Below median	39.8	38.1	47.0
	Above median	60.2	61.9	53.0
Total		100.0	100.0	100.0

Table 2.9 Satisfaction with research-related compound index by belonging to elite circle cross tabulation

		Belonging to elite circle (%)		
		Group A	Group B	The rest (%)
Satisfaction with research-related compound index	Below median	38.8	33.3	45.3
	Above median	61.2	66.7	54.7
Total		100.0	100.0	100.0

Table 2.10 Satisfaction with personal influence compound index by belonging or not to elite circle

		Elite circle (%)		
		Group A	Group B	The rest (%)
Satisfaction with personal influence compound index	Below median	41.7	85.7	53.2
	Above median	58.3	14.3	46.8
Total		100.0	100.0	100.0

Satisfaction = Influence: When considering the level of academics' individual influence in the decision making of the institution, a different picture shows up. Although Argentine academics were well positioned compared with academics from other countries on this item, things look different when distinguishing between groups. As expected, consolidated academics see themselves as more influential (58.3% response rate above the median). On the contrary, influence is seen as extremely low in the group of the young 'heirs' in their way to belonging to the elite circle. They regard themselves as little influential (only 14.3% of responses were above the median). Of the remaining majority of Argentine academics whose institutional affiliation is weaker due to their part-time positions, 53% locate their responses on influence below the median (Table 2.10).

In this particular issue, further differences between the two elite groups can be seen, and data might show an alarming low level of institutional integration by the current young academics, who in a few years will be the successors of academic elite.

Table 2.11 Satisfaction with managerial support compound index by belonging or not to elite circle

		Elite circle (%)		
		Group A	Group B	The rest (%)
Satisfaction with managerial support compound index	Below median	57.3	66.7	49.1
	Above median	42.7	33.3	50.9
Total		100.0	100.0	100.0

Table 2.12 Satisfaction with 'would do it again' compound index * belonging to elite circle cross tabulation

		Elite circle (%)		
		Group A	Group B	The rest (%)
Satisfaction with 'would do again' compound index	Below median	35.0	52.4	44.4
	Above median	65.0	47.6	55.6
Total		100.0	100.0	100.0

Satisfaction = Managerial Support: We note that our two groups differ from the majority when considering coordination of their work with the administrative area, which involves communication, collegiality in decision-making processes or difficulties in administrative processes, among others. While most teachers that do not belong to the elite circle show a standard 50.9% response rate above the median, 57% of Group A consolidated academics are below the median, which would show a lower level of satisfaction, and it is further accentuated in the younger group (66.7%) (Table 2.11).

It is likely that these results are the consequence of increased contact and interaction between the two groups and those at the administrative level of the institutions. This highlights coordination problems between the academic and the administrative levels that are less obvious for the scholars who spend less time in the institution and are less involved with bureaucratic requirements needed to overcome them and be part of the elite circle.

Do It Again?: Argentine scholars are among the top three countries with favourable responses when asked if they would choose the profession again. These overall results vary when considering the elite groups. Consolidated scholars (Group A) declare a level of acceptance of 65% above the median, while young people on their way to 'belonging' to the elite (Group B) have a response 47.6% above the median. Again, these data would show the difficulties that young people perceive in their race to enter the elite circle. And distinctions between the groups demonstrate that the overall level of satisfaction with the profession is maintained for the remaining majority of Argentinean university teachers, whose responses are above the median at 55.6% (Table 2.12).

2.7 So, Are They Satisfied?

To summarise, high levels of academic job satisfaction in Argentina are in some ways influenced by a benefited minority of scholars who belong to an elite circle and probably because of their increased likelihood of gaining access to the academic world. This raises the mean for overall job satisfaction by almost three points. Although this difference might be considered to be small, it places Argentinean academic job satisfaction below or above the international mean, according to whether this minority is included or not. Moreover, this difference defines if Argentine academics' job satisfaction is ranked 9th or 13th among participating nations (Table 2.13).

Differences also appear in perceptions about career improvement. Forty-three per cent of the vast majority of university teachers who do not belong to the elite circle consider that their careers have improved or considerably improved in recent years, but this percentage arises by two points when the elite circle is included.

There are few important differences when specific aspects of physical satisfaction are considered. However, variations appear regarding institutional job satisfaction. Positive perceptions about influence in decision making are higher when the elite groups are included. And, as we have seen above, the consolidated group of academics is the one that causes the evolution to this positive level. This difference is so crucial that it moves Argentina from the second to the sixth position in the international rank when the elite groups are not considered. Excluding the opinions of the elite groups is also crucial in relation to perceptions about administrative support, although in an opposite way. The elite groups' negative perception about this item places Argentina in the 14th position in the international rank, a position that rises to the 10th position if the opinion of these groups are not considered.

Finally, aggregate levels of satisfaction remain similar whether elite groups are considered or not regarding willingness to choose the profession again. As was shown, this is a consequence of opposite perceptions between the consolidated and elite groups, which balance results and maintain the aggregate levels.

2.8 Concluding Remarks

Analysis of Argentine data seems to confirm the widespread assumption that working conditions have suffered a profound transformation in the recent past. Such changes are influenced both by the homogenisation of the academic field in different countries, as comparative analysis seems to show, and by the impact of recent local policies. However, the effects of these trends are not equal. Even though there is a perception of improvement in working conditions, some policies which started in the 1990s but are nonetheless still in place have left a clearly differentiated academic profession, with elite groups linked to the international science and academia circuit, and the vast majority playing a whole different game.

Table 2.13 Argentina satisfaction percentages and indexes (without elite groups)

Item	Argentina value	Argentina value (without elite groups)	Internat. average	Argentina rank	Argentina rank (without elite groups)
Overall satisfaction high or very high (%)	64.80	62.10	64.20	9	13
Career is improved or very improved (%)	45.60	43.60	30.30	5	5
Physical infrastructure index	2.82	2.80	3.46	18	18
Service provision index	2.55	2.56	2.89	18	18
Teaching-related index	2.76	275	3.24	18	18
Research-related index	2.37	2.34	2.64	15	15
Influence index	3.14	3.09	2.92	2	6
Support index	2.84	2.87	2.88	14	10
Do it again index	3.87	3.86	3.34	3	3

Data show that the closer environmental and career conditions are to international standards, the greater is the satisfaction with academic work. For example, some variables seem to affect the levels of satisfaction within the national average. These factors include having obtained a higher academic degree, holding a full-time position, having more interest in research rather than teaching, being part of international networks and all factors that define a more international academic profile. These attributes belong to a minority in Argentina. At the same time, the policies governing the academic work of the past 15 years have been aimed at promoting a 'type' of academic in line with international trends, in the framework of a model that sought academic efficiency and productivity.

The contrast between these two groups, the consolidated and the heirs, raises the question of what the future local academic landscape may be. Negative opinions about institutional involvement and quite non-satisfaction with the profession chosen in young scholars tell something about the future of the Argentinean academic profession. It would be interesting to investigate through other means the institutional variable as a predictor of job satisfaction, that is, the reasons for young academics' low levels of perceived institutional influence and satisfaction. If perceptions stem from lack of interest in institutional involvement and a focus on taking part of a competitive race towards individual academic success, the academic elite for institutions in the coming years could face a risky future, a situation that could result from current government policies to increase academic research productivity. These kinds of results could indicate to institutional managers the need to implement policies that aim at institutional inclusion of these young people that, in a few years, will be part of the academic elite in Argentine universities.

Although Argentina traditionally prides itself of having one of the most advanced educational systems in the region, a long-term crisis has taken its toll, as the country is located towards the bottom in all but three indexes. Overall, positive perceptions about institutional influence may be linked to traditional patterns of interaction within universities, that is, high levels of academic freedom as well as high levels of political participation. Positive perceptions about recent improvements and willingness to do it again might be a reflection of recent policies (i.e. salary increases). Excepting these, the rest of the items associated with the environmental variable place Argentina in the lower positions of satisfaction in the world.

However, this generally gloomy environment has not stopped the elite group from achieving results comparable to those in richer countries with comparatively more resources. As benefits are distributed according to the new regulations, it has been possible to associate the high level of satisfaction and perceived career improvement with a specific group of academics that were undoubtedly the beneficiaries of the recent changes.

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Chapter 3

Factors Associated with Job Satisfaction Amongst Australian University Academics and Future Workforce Implications

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3.1 Introduction

The goals of Australian higher education have undergone dramatic transformations in recent decades, from broadly defined social, cultural and political goals towards explicitly contributing to national productivity and economic growth (Lafferty and Fleming 2000). The late 1980s' Dawkins reforms reoriented universities towards private funding, whilst the post-1996 Howard reforms further limited the role of public funding in universities. In some respects the results have been impressive. Higher education has expanded domestically with increased participation, and a by-product of these policy changes has been the growth in higher education as a major export industry. Education-related travel services (fees and living expenses of foreign students studying in Australia) are Australia's largest service export worth A\$18.5 billion in 2010, of which international higher-education students account for A\$10.6 billion (Australian Government 2011). However, the dramatic changes in funding and governance have also raised concerns from within the academy. Studies of job satisfaction in Australian universities have routinely

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offered a somewhat depressing image of life in the academy, calling into question the sustainability of an industry reliant upon autonomously motivated knowledge workers. For universities to reverse the despondent outlook of their academic staff, one must pay attention to their primary sources of satisfaction and dissatisfaction. The purpose of this chapter is to examine the factors associated with job satisfaction amongst Australian university academics, with reference to Hagedorn's (2000) conceptual framework. For only if we know what these primary sources are, appropriate policy responses at the national and institutional level can be initiated.

Concerns about job satisfaction in academia are nothing new. In their analysis of the 1991/1992 Carnegie survey, Lacy and Sheehan (1997, p. 306) found less than half (49%) of Australian academics were satisfied with their jobs. McInnis (1999, p. 8) found a similar level of job satisfaction (51%) in a 1999 survey, but this represented a decline from 67% satisfaction compared to another 1994 survey (McInnis and Anderson 2005). Across a range of work factors, McInnis and Anderson (2005) concluded that satisfaction had 'plummeted'. Internationally, Lacy and Sheehan (1997) found academics in Australia were less satisfied than academics in most other countries, whilst more recent studies show an even bleaker international position (Coates et al. 2009). Poor job satisfaction in the 1990s was blamed on increasing accountability requirements, competition for diminishing resources, poor salaries and unmanageable workloads. Lacy and Sheehan (1997) believed it was commonplace to hear assertions that 'morale has never been lower' and 'staff are at breaking point'. To McInnis and Anderson, it became 'obvious to the most casual observer that a crisis in the management of academic workloads and satisfaction had been met' (2005, p. 133). Whilst other surveys in 2000 and 2003/2004 showed job satisfaction had stabilised, their authors believed the majority of academics were at risk of psychological illness due to stress (Winefield et al. 2003, 2008; Winefield and Jarrett 2001). They hypothesised that this stress was an outcome of reduced collegial control and autonomy over workloads (Winefield et al. 2003).

In a separate study in 2002, Anderson and colleagues (2002) concluded that the Australian academic profession had lost its attractiveness due to declines in status, control, prestige and salary. Salaries of the highest-ranking academics declined from greater than three times the average weekly earnings in 1979 to roughly two and a half times the average in 2002 (Horsley and Woodburne 2005). Salaries in the lowest ranks dropped below the average during the same period. Coates and Goedegebuure (2010) estimated that the relative salaries dropped further during the mid-2000s, with salaries at the bottom at around 80% of average weekly earnings in 2008. Whilst salaries at Australian universities are relatively high compared to other English-speaking countries (Coates et al. 2009), there are concerns that the academic career is unattractive to new entrants. With an ageing academic workforce, Australian universities face a 'demographic time bomb' and may struggle to recruit replacements following the retirement of the baby-boomers generation (Hugo 2008).

Despite the negativity from within the academy, there does not appear to be a lack of aspirants trying to navigate their way into an academic career. Edwards and colleagues (2011) report that the vast majority (83%) of Australian research higher-degree students have seriously considered an academic career and more than half

(54%) intend to pursue such work. Edwards and Smith (2010) argue that security of tenure and the lure of overseas positions are the most serious inhibitors for attracting or retaining midcareer staff within mathematics and science, threatening to the long-term sustainability of science faculties in Australian universities, but very little data is used to support these claims. The competitiveness and shortage of tenured positions relative to qualified applicants is hardly indicative of a problem attracting qualified staff. Both studies by Edwards (Edwards and Smith 2010; Edwards et al. 2011) note that early career researchers see an overseas career as inevitable due to the lack of opportunities in Australia. However, there is no data to show that overseas positions are more attractive and the best candidates are pursuing careers outside Australia. McInnis and Anderson (2005, p. 134) argue that academics are simply less motivated by 'extrinsic rewards' such as salary, compared with the satisfaction of the work itself. Academic work may also simply be a better option than the alternatives for those who value autonomy and challenge. Benchmarked against workers in other large public sector organisation and industries, Australian academics enjoy greater job satisfaction, organisational commitment, intentions to remain in their current positions and very positive experiences with their co-workers (Langford 2010). However, his results also show a sobering array of areas where academics are less satisfied than their industry colleagues, including almost all aspects of work-life balance, organisational participation and resources.

Few would argue that universities lack room for improvement when it comes to the morale and satisfaction of their workers. However, after years of declining resources, increased accountability requirements and work intensification, it is unlikely that resource capacities will dramatically increase in the near future and allow universities to meet all demands. In times of resource constraints, universities must prioritise resource allocations to areas believed to achieve the greatest positive impact. By analysing the factors most strongly associated with higher levels of job satisfaction, this study will help identify the areas of academic work with the strongest potential for improved morale.

3.2 Theoretical Framework

Hagedorn (2000, p. 321) theorises the factors associated with job satisfaction within academia through her 'Conceptual Framework for Academic Job Satisfaction'. She argues that academic job satisfaction is an outcome of two interacting constructs: *mediators* and *triggers*. Mediators refer to interacting factors providing the context through which job satisfaction can be understood and include motivators and hygienes (intrinsic and extrinsic rewards associated with one's work), demographics and environmental conditions. By contrast, triggers are significant work or nonwork events affecting one's reference point, such as receiving a promotion, moving institution or starting a family. Hagedorn's (2000) conceptual framework is summarised in Table 3.1 with reference to the variables operationalised in this study.

Table 3.1 Conceptual framework for academic job satisfaction (Hagedorn 2000)

Mediators			Triggers
Motivators and hygienes	Demographics	Environmental conditions	Change or transfer
Achievement Recognition	Gender Ethnicity ^a	Collegial relationships ^a Student quality or relationships	Change in life stage Change in family-related or personal circumstances ^a
Work itself Responsibility ^a	Institutional types Academic discipline	Administration Institutional climate or culture ^a	Change in rank or tenure Transfer to new institution
Advancement Salary ^a			Change in perceived justice ^a Change in mood or emotional state ^a
Institutional resources ^b			

^aMeasures not available in the CAP data

^bAdditional variable, not included in Hagedorn’s (2000) original framework

Hagedorn’s framework is clearly inspired by the two-factor theory of job satisfaction and motivation developed by Herzberg and colleagues (1993). The two-factor theory considers job satisfaction and dissatisfaction as separate constructs. Factors associated with job satisfaction, labelled ‘motivators’, are different from the factors associated with dissatisfaction, labelled ‘hygienes’. Motivators are associated with the job itself, such as achievement, challenging work and professional development. Hygienes are contextual factors surrounding the work, such as policies, supervision and collegial relationships, and to a lesser extent salary and working conditions. Herzberg and colleagues found that motivators were more frequently cited by their interviewees when referring to positive work situations, but their presence had minimal relationship with reported feelings of dissatisfaction with one’s job. By contrast, dissatisfaction was most strongly associated with contextual factors, which had little or no association with positive work experiences. Contextual factors were labelled ‘hygienes’ because the presence of a satisfactory work context appeared to prevent job dissatisfaction, rather than leading to positive feelings, akin to good hygiene which prevents illness rather than curing it. In other words, the two-factor theory postulates that supportive policies and collegial relationships do not lead to higher levels of job satisfaction, but that they do help to prevent job dissatisfaction.

Lacy and Sheehan (1997) applied Herzberg and colleagues’ two-factor theory to their study of academic job satisfaction in Australia and seven other countries. They concluded that ‘no pattern emerges which offers the possibility of a challenge to the Herzberg two factor theory as an explanatory model for the concept of job satisfaction’ (p. 321). The two-factor theory has also underpinned McInnis’ (1999) observations that job satisfaction amongst Australian academics was more closely related to the work itself and autonomy, compared with extrinsic ‘contextual’ factors which were of relatively less importance. However, neither study measured job satisfaction and job dissatisfaction as separate constructs, meaning their strongly worded conclusions should be treated with a good deal of caution.

Hagedorn (2000) departs from Herzberg and colleagues' (1993) work by bundling motivators and hygienes into a single category (albeit with separate subcategories) and separating the influence of workplace relationships and culture into its own category 'environment'. Hagedorn's model is adapted slightly in this study by including 'institutional resources' as a subcategory within the motivators and hygienes. Institutional resources include satisfaction with 12 types of institutional physical, financial and human resources. The rationale is that institutional resources can also be considered mediators for job satisfaction because a lack of resources hinders performance, similar to policies and other hygiene factors.

Hagedorn further departs from Herzberg's theory by introducing demographic factors as mediators for job satisfaction. Hagedorn also theorises the importance of external events in triggering a reshaping of one's job satisfaction. However, August and Waltman's (2004) study of factors associated with job satisfaction amongst female and minority staff in an American research university found only weak effects for trigger variables. This was probably because triggers are difficult to operationalise without longitudinal data to measure satisfaction before and after a given event. Triggers may also affect other mediators, such as achievement and workplace relationships.

3.3 Data

The data for this study came from the Changing Academic Profession (CAP) project. Analysis is restricted to survey respondents answering the relevant questions regarding job satisfaction ($N=1,097$). The response rate for the Australian survey was 25%. The relatively low response rate was probably due to the long length of the survey and use of an online survey and email invitations, whereby inactive email addresses and email filters meant an unknown number of invitations were not received. However, the sample of respondents closely matched their population on the strata of gender, rank and institutional type and is suitable for national-level generalisations. Further details on the conduct of the CAP survey in Australia can be found in Coates et al. (2008).

3.4 Methodology

Job satisfaction was measured as a single continuum, and factors associated with higher levels of job satisfaction were examined through linear and binary logistic regression. The independent variables contained dichotomous and ordinal variables, some of which were transformed into multiple dichotomous variables. Bivariate relationships with job satisfaction were examined with a Pearson correlation coefficient, and along with the descriptive results, these are shown in Table 3.2. All independent variables, regardless of the strength of their bivariate relationship with

Table 3.2 Variable means, standard deviations and Pearson correlation coefficients with job satisfaction index, respondents (*n*) and descriptions

	Mean	SD	Corr.	<i>n</i>	Variable description
<i>Motivators and hygienes</i>					
Publications index ^a	2.52	1.59	-0.08**	978	Square root transformation of publications in the previous 3 years
Recognition ^b	0.43	0.50	-0.00**	950	Elected academic leadership position or scientific board member
Available research time ^b	0.78	0.41	-0.11**	1,056	At least 30% research time (primary research interest); or 20% research time (research and teaching interest); or primary interest in teaching
Junior rank ^b	0.52	0.50	-0.07**	1,097	Lecturer and below (level A/level B)
Middle rank ^b	0.25	0.43	-0.05**	1,097	Senior lecturer (level C)
Senior rank ^b	0.23	0.42	-0.14**	1,097	Associate professor/professor (level D/level E)
Institutional resources ^c	3.22	0.68	-0.39**	1,090	Degree of satisfaction with 12 institutional resource variables
<i>Demographics</i>					
Male ^b	0.50	0.50	-0.04**	1,006	Male
Group of Eight university ^b	0.42	0.49	-0.02**	1,097	Employed at a Group of Eight university
ATN university ^b	0.21	0.41	-0.05**	1,097	Employed at an Australian Technology Network university
Other university ^b	0.36	0.48	-0.02**	1,097	Employed at another university
Social sciences ^b	0.33	0.47	-0.01**	871	Current academic unit in the social sciences
Humanities ^b	0.14	0.34	-0.01**	871	Current academic unit in the humanities
Natural sciences ^b	0.22	0.41	-0.02**	871	Current academic unit in the natural sciences
Technology ^b	0.06	0.24	-0.02**	871	Current academic unit in technology or engineering
Medicine ^b	0.25	0.44	-0.01**	871	Current academic unit in the medical/health sciences
<i>Environment</i>					
Poor student quality ^c	3.61	1.17	-0.23**	867	Agreement that one spends too much time teaching basic skills to students
Dept. influence ^c	2.38	1.00	-0.17**	940	Perceived influence at the departmental level
Administration processes ^c	2.54	0.83	0.46**	998	Degree of satisfaction with four administration support variables

(continued)

Table 3.2 (continued)

	Mean	SD	Corr.	<i>n</i>	Variable description
<i>Triggers</i>					
Early career ^b	0.26	0.44	-0.01**	998	Under 40 years of age
Midcareer ^b	0.52	0.50	-0.11**	998	40–55 years of age
Late career ^b	0.23	0.42	-0.14**	998	Over 55 years of age
Recently promoted ^b	0.73	0.44	-0.11**	1,014	Promoted/appointed to current rank within the last 5 years
New appointment ^b	0.43	0.50	-0.07**	1,033	Less than 4 years at current institution

Statistical significance: ** $p < 0.01$ * $p < 0.05$

^aScale variable

^bDichotomous variable

^cFive-point ordinal variable

^dFour-point ordinal variable

job satisfaction, were included in the regression calculations. Linear multiple regression treated the dependent variable, a job satisfaction index, as a scale variable (see below). The dependent variable was then transformed into a binary variable for binary logistic regression. The reason for this was to test whether the same independent variables associated with higher levels of overall job satisfaction predicted the likelihood of being satisfied (or not). All independent variables were coded positively such that higher scores represented their presence (dichotomous variables) or a stronger level of agreement/satisfaction (ordinal variables).

3.4.1 Dependent Variable

Job satisfaction was calculated as a factor-based score, an unweighted sum of four Likert scale items measuring satisfaction with different aspects of academic work. The three questions required responses from ‘strongly agree’ (1) to ‘strongly disagree’ (5) for the following questions: ‘This is a poor time for any young person to begin an academic career in my field’, ‘If I had it to do over again, I would not become an academic’ and ‘My job is a source of considerable personal strain’. The fourth question asked for a rating from 1 to 5: ‘How would you rate your overall satisfaction with your current job?’

The choice of a four-item composite scale was based on the improvement in reliability that comes from measuring job satisfaction as a multifaceted construct. The approach differed from previous Australian studies which have utilised a single-item response (Lacy and Sheehan 1997; McInnis 1999; McInnis and Anderson 2005) but consistent with Fredman and Doughney (2011) who used a composite of items as a reliability check of satisfaction. The factor-based score was transformed into a binary variable for ‘satisfied’ (job satisfaction index greater than 3) or ‘not satisfied’ (job satisfaction index of 3 or less).

The Pearson bivariate correlation matrix between the four items and a principal component analysis indicated the factor-based score was appropriate. Bivariate correlation coefficients for the four items ranged from 0.35 to 0.52. The principal component analysis showed a Kaiser-Meyer-Olkin (KMO) index of 0.75, which indicated the correlations amongst the items were sufficient for a factor-based score (Todman and Dugard 2007). The Bartlett's test of sphericity also indicated that the correlation matrix was not an identity matrix (chi-square 953.5, df 6, Sig. 0.001). Only one component achieved an eigenvalue greater than one (2.28) and explained 57% of the variance, suggesting that the four items selected measured a single latent variable. All four items achieved high factor loadings, ranging from 0.67 to 0.80. Tests of internal consistency further suggested the four items tapped into a single construct, with a Cronbach alpha of 0.74. Based on these results, we can be confident that the factor-based measure is appropriate for measuring job satisfaction in the Australian sample.

3.4.2 Independent Variables

The independent variables were classified according to the Hagedorn's (2000) framework into four categories: motivators and hygienes (achievement, recognition, work itself, advancement, institutional resources), demographics (academic discipline, institutional type, gender), environmental (student quality/relationships, administration processes and departmental influence) and triggers (change in rank/tenure, transfer to new institution). The CAP survey did not contain data for the following: responsibility, ethnicity, collegial relationships, institutional climate or culture, change in perceived justice, mood or emotional state or family-related/personal circumstances.

In some cases, there were survey questions addressing Hagedorn's mediators, but responses were highly correlated with other questions. For example, university salary was very highly correlated with the academic rank for full-time academics (Pearson correlation coefficient=0.81). Academic salaries are determined by academic rank, and salary structures are similar across universities due to collective agreements negotiated with a common national union, the National Tertiary Education Union. Given the presence of part-time academics in the sample, academic rank offered a more suitable proxy for advancement than salary. It would also have been preferable to examine the role of administrative decision-making and leadership separately, but responses were highly correlated. Therefore, responses were aggregated into a single, and therefore less precise, variable for 'administration process'.

A further complication was the broadness of Hagedorn's categories. For example, self-perceived influence within one's department measures relationships with superiors, consistent with Hagedorn's theory, but probably also reflects perceptions of institutional culture or collegial relationships. Imprecise operationalisation, overlapping categories and the omission of certain variables, means caution must be taken when generalising results for individual variables. The relationships between

mediators and job satisfaction are complex, meaning independent variables can capture the effects of other factors absent from the model. The independent variables and their operationalisation are summarised in Table 3.2 and presented below in more detail.

Achievement is a square root transformation of the weighted sum of an individual's journal articles (1 point), edited books (2 points) and authored books (5 points) in the previous 3 years. A weighted index is consistent with previous Australian studies and helps control for disciplinary differences in publishing channels (Ramsden 1994), whilst the square root transformation normalises the skewed distribution of publications within a small number of highly publishing academics.

Work itself is a dichotomous variable for alignment between research interests and research time. Academics were categorised as having sufficient research time if (1) their primary interest was research and they spent at least 30% of their time on research, (2) they held both teaching and research interests and spent at least 20% of their time on research or (3) they held a primary interest in teaching.

Recognition is a dichotomous variable for having served in at least one of the following roles in the previous year: a member of a national/international scientific board, elected leader of a professional association or union or elected leader of a professional/academic organisation.

Advancement is operationalised as three dichotomous variables based on academic rank: 'senior rank' (associate professor/professor), 'middle rank' (senior lecturer) and 'junior rank' (lecturer and below).

Institutional resources is an ordinal variable based on mean satisfaction with 12 factors: classrooms, technology for teaching, teaching support staff, laboratories, research equipment, research funding, research support staff, computer facilities, libraries, office space, telecommunications and secretarial support. Ideally these factors would have been operationalised separately to account for which institutional resources have the strongest relationships with job satisfaction. However, high bivariate correlation amongst the factors required them to be aggregated into a single variable.

Gender is a dichotomous variable for being male.

Institutional types is operationalised as three dichotomous variables based on formal and informal groupings: 'Group of Eight', 'Australian Technology Network' (ATN) and 'other universities'.

Academic discipline is operationalised as five dichotomous variables based on the UNESCO (1978) guidelines: social science, humanities, technology, natural sciences and medicine.

Student quality or relationships is an ordinal variable based on the degree to which one agreed they spent 'more time than you would like teaching basic skills due to student deficiencies'.

Administration is operationalised as two variables. The first is satisfaction with 'administrative processes' and is based on ordinal responses to the presence of cumbersome administrative process (reverse coded), collegiality in decision-making, good communication between management and academics, supportive attitude of administrative staff towards teaching and supportive attitude towards research.

Item responses were highly correlated (Pearson correlation coefficient of greater than 0.5 between all pairs), justifying their operationalisation as a single variable. The second administration variable, 'departmental influence', is based on an ordinal response to self-perceived influence within one's department. This variable was not highly correlated with any items within the 'administrative processes' variable (maximum Pearson correlation coefficient of 0.25).

Career stage is operationalised as three dichotomous variables based on age group: 'early career' (under 40 years of age), 'midcareer' (40–55 years of age) and 'late career' (over 55 years of age). These categories are consistent with Hagedorn's (1994) American study.

Change in rank or tenure is a dichotomous variable for years since appointment or promotion to current rank. Those with five or fewer years at current rank were considered 'recently promoted'.

Transfer to new institution is a dichotomous variable for the length of tenure within one's current institution, with those having fewer than 4 years at current institution considered a 'new appointment'.

3.5 Results

3.5.1 Mean Satisfaction

On a scale of one to five, Australian academics reported a mean job satisfaction of 3.1. Just over half (51%) reported an index score above 3 and were, therefore, considered 'satisfied'. The mean and proportion of 'satisfied' academics likely underestimated overall satisfaction. The mean score for the question regarding 'overall satisfaction with current job' was higher (3.4), and 55% of academics reported to be satisfied (4) or very satisfied (5). These results are similar to the recent survey by Bexley and colleagues (2011) which found 58% of academics were generally satisfied and are slightly more positive than McInnis' (1999) survey (51% satisfied) and the Carnegie survey of 1991/1992 (49% satisfied) (Lacy and Sheehan 1997). Most negativity focused on the two questions relating to personal strain of an academic career and poor conditions for young academics. Only 28% of academics disagreed with the statement 'My job is a source of considerable personal strain'. This is similar to the 2010 survey by Bexley and colleagues (2011) which found 30% disagreement with the statement 'My job is a source of considerable personal stress' and an improvement upon the 21% disagreement with the same question in McInnis' (1999) survey. Just over a third (36%) disagreed with the statement 'This is a poor time for any young person to begin an academic career in my field', but this was also higher than in 1999 where only 23% disagreed (McInnis 1999). These results are shown in Table 3.3.

A standard multiple regression was performed with the job satisfaction index as the dependent variable. The adjusted square multiple correlation for Australia was

Table 3.3 Satisfaction with academic work: mean (*M*), standard deviation (*SD*) and % reporting satisfaction (% reporting a score above 3)

	M	SD	%	<i>n</i>
Job satisfaction index	3.11	0.95	51	1,097
This is a poor time for any young person to begin an academic career in my field ^a	2.77	1.39	36	1,089
If I had it to do over again, I would not become an academic ^a	3.60	1.30	58	1,092
My job is a source of considerable personal strain ^a	2.64	1.26	28	1,093
Overall satisfaction with current job ^b	3.42	1.09	55	1,097

^a1 = strongly agree; 5 = strongly disagree

^b1 = very dissatisfied; 5 = very satisfied

significantly different from zero ($F = 13.196, p < 0.01$), and 32% of the variance in the job satisfaction index was explained by the set of independent variables. The adjusted *R*-square was less than the 40% of variance in job satisfaction explained by Lacy and Sheehan's (1997) model for the 1991/1992 Carnegie data. However, the difference may be less than this because it is unclear whether Lacy and Sheehan were reporting an adjusted or unadjusted *R*-square. The data satisfied the assumptions of multicollinearity (variance inflation factors reached a maximum of 2.0), and residual plots indicated normality of residuals and homoscedasticity.

Whilst most independent variables showed significant bivariate relationships with job satisfaction, only a minority uniquely and significantly contributed to the prediction of job satisfaction. For example, the relationship between academic rank and job satisfaction, whilst statistically significant in bivariate terms, was not significant once other variables were controlled for in the regression results. This illustrates the difficulty in accurately predicting how job satisfaction is influenced by any one variable in isolation, particularly when a variable captures both intrinsic and extrinsic rewards. Nonetheless, statistically significant positive relationships were found between job satisfaction and supportive administrative processes, satisfactory institutional resources, available research time, being a late-career academic and having spent less than 5 years at one's current rank (recently promoted). Poor student quality was also highly significant in its negative relationship with job satisfaction, whilst being employed at a Group of Eight university was also significant and negatively related with job satisfaction. The regression results are shown in Table 3.4.

Linear regression requires the dependent variable to be at least interval with equal distance between each pair of successive categories. One limitation of the job satisfaction index is that it is derived from ordinal responses, meaning the distance between category levels may not be equal. To check whether job satisfaction could be more appropriately operationalised as a dichotomous variable (for being satisfied or not), a binary logistic regression for the same independent variables was conducted. Binary logistic regression determines the impact of multiple independent

Table 3.4 Linear multiple regression results for factors associated with higher levels of job satisfaction

	Beta	S.E.	Std. B.	<i>t</i>	Sig.	Toll.	VIF
(Constant)	1.29	0.28		4.69	0.00		
Administration processes^a	0.36	0.05	0.31	6.82	0.00	0.62	1.61
Institutional resources^a	0.27	0.06	0.19	4.23	0.00	0.65	1.54
Available research time^b	0.20	0.09	0.09	2.35	0.02	0.89	1.13
Late career^b	0.21	0.09	0.09	2.28	0.02	0.76	1.31
Recently promoted^b	0.20	0.09	0.09	2.13	0.03	0.67	1.49
Departmental influence ^c	0.06	0.04	0.06	1.46	0.14	0.70	1.43
Humanities ^b	0.13	0.11	0.05	1.12	0.26	0.79	1.27
Publications index ^d	0.02	0.03	0.04	0.83	0.40	0.60	1.65
Senior rank ^b	0.07	0.11	0.03	0.65	0.51	0.55	1.83
Technology ^b	0.09	0.15	0.02	0.56	0.58	0.87	1.15
Early career ^b	0.04	0.10	0.02	0.38	0.70	0.73	1.37
New appointment ^b	0.04	0.09	0.02	0.46	0.64	0.62	1.62
Male ^b	0.01	0.07	0.01	0.17	0.87	0.91	1.10
Other university ^b	0.01	0.10	0.01	0.11	0.91	0.49	2.04
Medicine ^b	0.03	0.10	0.01	0.27	0.79	0.76	1.31
Natural sciences ^b	0.00	0.10	0.00	0.04	0.97	0.74	1.34
Recognition ^b	-0.01	0.08	-0.01	-0.18	0.85	0.85	1.18
Junior rank ^b	-0.08	0.10	-0.04	-0.78	0.43	0.55	1.81
Group of Eight university^b	-0.26	0.10	-0.14	-2.60	0.01	0.49	2.05
Poor student quality^a	-0.14	0.03	-0.17	-4.37	0.00	0.88	1.14
Adjusted <i>R</i> -square	0.32						

Reference categories: middle rank, ATN university, social sciences and midcareer

Statistically significant ($p < 0.05$) results shown in **bold**

^aFive-point ordinal variable

^bDichotomous variable

^cFour-point ordinal variable

^dScale variable

variables on the likelihood of being classified in a particular dichotomous category, in this case, being classified as ‘satisfied’ (having a job satisfaction index of 3 or higher). The binary logistic regression results are shown in Table 3.5.

The logistic regression results indicated that the inclusion of the independent variables significantly improved the likelihood of being able to predict whether or not an academic is satisfied with their job (compared with a constant-only model). The factors associated with being satisfied were almost identical to the linear regression model, though with typically lower levels of statistical significance. Satisfaction with administration processes remained the strongest variable, with a one-unit increase associated with being almost twice as likely to report being satisfied ($\text{Exp}(B) = 1.93$). Being in one’s current rank for less than 5 years (recently promoted) was also associated with being twice as likely to report job satisfaction ($\text{Exp}(B) = 2.05$). Poor student quality and being located in a Group of Eight university remained negatively associated with the likelihood of being satisfied in the binary logistic

Table 3.5 Binary logistic regression for factors affecting the odds of being satisfied

	B	S.E.	Wald	df	Sig.	Exp(B)
Promotion^a	0.72	0.27	7.01	1.00	0.01	2.05
Administration processes^b	0.66	0.16	17.87	1.00	0.00	1.93
Available research time^a	0.62	0.26	5.71	1.00	0.02	1.87
Institutional resources^b	0.48	0.19	6.58	1.00	0.01	1.61
Other university ^a	0.37	0.30	1.50	1.00	0.22	1.45
Technology ^a	0.36	0.45	0.64	1.00	0.42	1.44
Late career ^a	0.33	0.27	1.52	1.00	0.22	1.39
Humanities ^a	0.29	0.33	0.77	1.00	0.38	1.34
Early career ^a	0.20	0.30	0.46	1.00	0.50	1.22
Departmental influence ^c	0.19	0.13	2.33	1.00	0.13	1.21
Publications index ^d	0.15	0.09	3.02	1.00	0.08	1.16
Male ^a	0.14	0.21	0.40	1.00	0.53	1.15
Senior rank ^a	0.12	0.30	0.17	1.00	0.68	1.13
New appointment ^a	0.10	0.27	0.12	1.00	0.73	1.10
Medicine ^a	0.06	0.28	0.04	1.00	0.84	1.06
Recognition ^a	0.04	0.22	0.04	1.00	0.85	1.04
Natural sciences ^a	0.03	0.28	0.01	1.00	0.91	1.03
Junior rank ^a	-0.38	0.28	1.82	1.00	0.18	0.69
Poor student quality^b	-0.37	0.10	14.04	1.00	0.00	0.69
Group of Eight university^a	-0.68	0.30	5.15	1.00	0.02	0.51
Constant	-3.93	0.85	21.23	1.00	0.00	0.02

Chi-square=141.99 (sig. 0.01); -2 log likelihood=567.13; Nagelkerke R-square=0.32

Reference categories: middle rank, Australian Technology Network university, social sciences and midcareer

Statistically significant ($p < 0.05$) results shown in **bold**

^aDichotomous variable

^bFive-point scale variable

^cFour-point ordinal variable

^dScale variable

model. Given the similarity and weaker levels of significance in the binary logistic model compared with the linear model, the following discussion will focus on the results from the linear regression.

3.5.2 Results for Environmental Conditions

Hagedorn's framework contained three types of mediators: motivators and hygienes, demographics and environmental conditions. The results indicate that the strongest factors associated with job satisfaction are environmental conditions. Administration processes is the single factor most strongly explaining the variation in job satisfaction between academics. A one-unit increase in satisfaction with administration processes predicted an increase in job satisfaction of almost 0.4 units on our five-unit

index. This was a broad variable capturing highly correlated responses to questions of communication, collegiality in decision-making and relationships with administrators. The increased importance of good relationships with administrators and superiors has been discussed widely in the Australian and international literature on academic work. Academic work has traditionally been self-regulated, but autonomy has come under strain with increases in managerial control over work (Lafferty and Fleming 2000). The importance of good relationships with administrators and superiors was consistent with Winter and Sarros' (2002) results, which indicated influence in departmental and university decision-making was a significant factor affecting organisational commitment. The low mean score for administration processes (2.5 on a scale of 1–5) compared to satisfaction with other work aspects (e.g. institutional resources) lends support to Langford's (2010) findings that Australian universities have a relative weakness in institutional processes, co-operation and communication and involvement in decision-making.

The second administration variable in the model, departmental influence, showed a positive but insignificant relationship with job satisfaction. This result differed from previous studies from the United States, which found the level of faculty involvement and influence within one's unit was one of the strongest significant predictors of job satisfaction (August and Waltman 2004; Iacocca and Schumacher 1995). The results may indicate support for Lacy and Sheehan's (1997) claims that institutional 'governance' (such as departmental influence) has only a minor influence on job satisfaction when controlling for 'institutional atmosphere' variables (such as faculty-administration relationships). However, it is also likely that departmental influence affects how one evaluates relationships with institutional decision-makers and, consequently, job satisfaction. Therefore, the importance of departmental influence should not be disregarded.

Poor student quality was the third strongest factor associated with job satisfaction. A majority (59%) of academics spent more time than they would have liked teaching basic skills to students with deficiencies. A one-unit increase in agreement was associated with a 0.2-unit decrease in the job satisfaction index. Poor student quality was operationalised as a proxy for student relationships and achieved results similar to previous American studies (August and Waltman 2004; Hagedorn 2000). There are no previous Australian studies to draw direct comparisons, but the descriptive results were almost identical to Bexley and colleagues' (2011, p. 65) and consistent with McInnis' (1999) regression results, which showed hindrances to teaching were significantly and negatively associated with job satisfaction. McInnis also found that the two greatest hindrances were 'too many students' (50%) and 'a too wide a range of students' abilities' (46%). More than a third of academics involved in undergraduate teaching in McInnis' survey perceived a decline in the calibre of students over the previous 5 years.

The quality of academic-student relationships has arguably declined as massification of Australian higher education has brought an increase in student numbers, student diversity and declines in student funding (on a per capita basis) (McInnis 2003; Moodie 2008). The general perception that student preparedness is declining can be traced back to at least the late 1970s in Australia (Harman and

Meek 2007). Australian academics have also faced increased scrutiny of their undergraduate teaching portfolios when applying for tenure and promotion. Combined with the growth in international students, many academics have difficulties teaching to a larger, more diverse and less academically prepared student cohort. This can be particularly stressful where there is a mismatch between prior training and expectations and current teaching duties (Winefield and Jarrett 2001).

3.5.3 Results for Motivators and Hygienes

Institutional resources was the independent variable with the second strongest relationship with job satisfaction. Institutional resources did not form part of Hagedorn's (2000) theoretical framework, but as argued before, one may expect that resources act similar to what Herzberg and colleagues (1993) identify as hygienes, whereby sufficient resources prevent dissatisfaction and barriers to completing one's work. The strength of this variable was unsurprising. Declining government funding of universities, combined with increasing student numbers and increased competition for research funding, has stretched the diminishing resources in Australian universities and intensified academic workloads (Harman 2006). However, mean satisfaction with institutional resources was high (3.2 on a scale of 1–5) relative to administrative process (2.5), which was similar to Langford's (2010) findings for universities. Unfortunately, the broadness of this variable (due to high correlation amongst its components) makes it impossible to distinguish which component resource was most strongly associated with satisfaction.

The only other significant motivator and hygiene from Hagedorn's (2000) framework was available research time, which was a proxy for 'work itself'. To be considered as having adequate research time, academics with research interests were required to spend at least 20% of their time on research, increasing to 30% for those with primary research interests. Academics without research interests were considered to have adequate research time by default. The majority of academics (78%, including the 7% with primary teaching interests) met these thresholds. Available research time was associated with a 0.2-unit increase in job satisfaction. Whilst this appears relatively minor, it is important given its cumulative effect after controlling for other variables affecting research time and performance, such as rank and student quality. The core areas of academic work are not always mutually reinforcing, with undergraduate teaching often 'at odds' with research (Mamiseishvili and Rosser 2010, p. 120). Winefield and Jarrett (2001, pp. 296–297) have argued that the shift in control over workloads in Australian universities, away from collegial decision-making and towards managerial autocracy, has increased the potential for mismatches between work requirements and one's abilities or expectations. As noted by one interviewee in Petersen's (2011) study of Australian early stage researchers, 'it feels like I spend most of my time on things that I loathe doing and am not very good at or trained to do, and almost none of my time on things I feel I should be doing; research and actual teaching' (p. 36). When academics are trained

in and hold an interest in research, it is unsurprising that available research time is an important predictor of satisfaction.

None of the remaining motivators and hygienes—achievement (publications), recognition (leadership roles) and advancement (rank)—showed significant associations with job satisfaction. This was somewhat inconsistent with the expectancy-based and self-determination theories of motivation which underpin Hagedorn's (2000) theoretical framework (for a summary of the theoretical literature, see Mamiseishvili and Rosser 2010). As indicated before, Hagedorn's framework is strongly influenced by the work of Herzberg and colleagues (1993), who found achievement and recognition to have the strongest relationships with positive job attitudes. However, the regression results indicated that additional research publications had no significant relationship with job satisfaction. The bivariate relationship between publications and job satisfaction was also very weak (Pearson correlation coefficient 0.08). A square root transformation of publication types (books and articles) was used because of the skewed distribution of publications. However, the square root transformation only marginally increased the strength of this variable compared with using the raw number of publications.

Considering the significant relationship between satisfaction and available research time, the insignificance of publications suggests that publishing research may be less intrinsically satisfying for academics than the research process itself. According to self-determination theory, if workers lack autonomous motivation for improved productivity in a given activity, they will derive little satisfaction from effective performance. The pressure to publish may mean that the motivation to publish additional research is not autonomous but 'prompted by external or introjected contingencies' (Gagné and Deci 2005, p. 353). Hagedorn proposed that academics with greater levels of publishing will be more satisfied but qualified this as contingent upon their achievements being recognised and rewarded. Whilst a large majority of academics surveyed by Bexley and colleagues in 2011 agreed that research/scholarly activities were currently rewarded by their universities (75%), this was noticeably less than the proportion agreeing in the 1999 survey (92%). Although academics believe research is rewarded by universities, when it comes to their own university valuing their individual contributions, Bellamy and colleagues (2003) found only a minority (41%) of Australian business academics felt this was the case. The complexity of appraising research performance probably means the relationship between performance and job satisfaction is weaker in academia than in other professions.

Academics in leadership roles, such as elected leaders of professional associations or members of international scientific committees, were no more satisfied with their jobs than other academics. Given that academics in such positions have received substantial recognition from their peers, the insignificance of this variable was surprising. It may be that leadership and committee responsibilities are relatively unimportant for academics, compared with the core duties of teaching and research. Leadership and community service are rarely listed as a reason for choosing an academic career in Australia compared with the traditional academic roles of teaching and research (Bellamy et al. 2003).

The insignificance of the remaining motivator and hygiene variable—advancement (academic rank)—differs from the earlier Australian studies by Lacy and Sheehan (1997) and McInnis' (1999). Academic rank was expected to show a positive relationship with job satisfaction because autonomy has arguably been reduced in lower ranks (Lafferty and Fleming 2000), but the negative effects of these changes for job satisfaction do not receive support amongst the fixed-term and ongoing staff included in the CAP survey.

3.5.4 Results for Demographics

The regression model contained three demographic mediators—gender, institutional type and academic discipline—but only institutional type showed a significant relationship with job satisfaction. Academics employed with a Group of Eight university reported significantly lower levels of job satisfaction compared with those in the reference group, the Australian Technology Network universities. This was surprising because there were no significant differences between university types in mean job satisfaction via an ANOVA analysis ($p > 0.05$). The results also differ from Winefield and colleagues (2003), who reported higher levels of job satisfaction in older universities, and McInnis' (1999) study which indicated no effect of university type in the logistic regression results. There may be some overlap between being in a Group of Eight and other mediators. Academics in the Group of Eight reported significantly higher scores for student quality and available research time than academics in the two other institutional types and significantly higher satisfaction with institutional resources than academics in 'other universities' (ANOVA Games Howell, $p < 0.05$). However, after recomputing the linear regression without the student quality, institutional resources and available research time variables, Group of Eight academics continued to be significantly less satisfied. The lower level of satisfaction amongst Group of Eight academics, despite their relatively favourable conditions, may be due to higher expectations of their employing institutions.

One can transfer between institutions, but gender and, to a lesser extent, discipline are fixed demographic variables. None of the demographic variables were significant in explaining variation in job satisfaction. Nor were there any significant differences in mean satisfaction between gender or any academic field (ANOVA, $p > 0.05$). This is different to Lacy and Sheehan's (1997) analysis of the 1991/1992 Carnegie data, which found men were significantly more satisfied with most aspects of their academic work, including their job as a whole (52% satisfied vs. 43%). However, other previous Australian studies have also found no effect of gender in job satisfaction (McInnis 1999; Winefield and Jarrett 2001) and quality of academic work life (Winter et al. 2000). Bornholt and colleagues (2005) further analysed the 1991/1992 Carnegie data and concluded that the effects of discipline and gender were indirect: 'It is evident that a sense of satisfaction with academic work is linked to social roles within highly stratified career structures, rather than directly to gender or [discipline]

... gendered dissatisfaction with academic work therefore lies in the disproportionate numbers of academic women and men across ranks' (Bornholt et al. 2005, p. 128). The insignificance of gender and academic field in this study also suggests that these variables do not explain variation in job satisfaction once other work-related factors are controlled.

3.5.5 Results for Triggers

The final three mediators came from what Hagedorn (2000) described as triggers: change in life stage, change in rank or tenure and transfer to new institution. Each of these changes can trigger a reinterpretation of one's work and career. Academics who were either promoted or appointed to their current rank within the last 5 years were significantly more satisfied than those who had spent at least 5 years at the same rank. These results were consistent with Winefield and colleagues' (2008, p. 161) longitudinal study, which found that academics who had been promoted between their 2000 and 2003/2004 surveys reported significantly higher job satisfaction in 2003/2004, whilst the opposite was the case for those without promotion. This is an important result because the benefits to one's salary of a promotion can be relatively modest, given that collectively bargained salary structures in Australian universities reward length of service with incremental pay increases. For example, at the University of Melbourne, the immediate pre-tax salary increase for an academic promoted to the next highest rank would be roughly 4%, if they had spent 5–6 years at their previous rank. Perhaps more than its positive impact on salary, promotion acts as a positive feedback on performance, particularly in Australian universities where promotion is based on demonstrated competence, rather than applying for vacancies.

Hagedorn argues that transferring to a new institution always affects job satisfaction as it involves fitting into new surroundings and responsibilities. There was no support in the regression results to indicate that recently transferred academics were any more or less satisfied with their jobs. However, the regression results do not directly measure the impact of a transfer because the data are cross-sectional. More than one-third (34%) of satisfied academics declared that they had not considered making major changes to their job in the last 5 years, compared with just 16% of not satisfied academics. If dissatisfied academics are more likely to transfer to a new institution and transferring has a positive effect on their job satisfaction, the effects would not be captured in the regression results because job satisfaction was only measured after the change.

Changes in life and career stage can encourage career reassessment and bring into question whether one's current work and career trajectory matches career goals. Based on her earlier research on the relationship between job satisfaction and proximity to retirement (Hagedorn 1994), Hagedorn (2000) contended that the determinants of job satisfaction vary depending on whether one is an early career, midcareer or late career. In this study, age was used as a proxy for career stage, and

the regression results showed that late-career academics (those over 55 years of age) were significantly more satisfied than midcareer and early career academics. These results were similar to McInnis' (1999) regression results which indicated early career academics (between 1 and 7 years in academia) were significantly less satisfied.

Hagedorn (1994) contended that older academics may be more satisfied because they have had the time to align their work situation with their competences or interests. However, younger generations may never have the time to align their work situation with their competences if work requirements are always in flux. Again, the limitations of cross-sectional data make it impossible to reveal the effect of ageing or changes in career stage on satisfaction, only differences between academics of different ages at the same point in time. Academics belong to different generations (or cohorts), and younger academics will experience vastly different careers from their predecessors. Teaching experience is often gained as a postgraduate researcher, and doctorates now operate as a prerequisite for secure employment, or even the 'treadmill' employment of sessional contracts (Coates and Goedegebuure 2010). This should indicate greater preparedness of younger generations once they finally enter their academic careers, but these experiences act as a filtering process and will shape how young academics perceive their work.

The demands of academic work have also moved away from traditional research and teaching. In 2010, the activity most academics believed was rewarded in promotion processes was the ability to attract external funds (82.8% agreed) (Bexley et al. 2011). Most also agreed research/scholarly activities were rewarded (74.7%), but few agreed effectiveness as a teacher was rewarded (29.3%). These results were different to the McInnis' (1999) survey which found stronger agreement for research (90.9%) and teaching (43.9%), but similar results for external funds (81.9%). Winefield and Jarrett (2001) argue that late-career academics are in the worst position to adapt to the comparably stronger importance of entrepreneurial activities because they were not recruited with these abilities in mind. However, older generations have also benefitted from more generous retirement schemes (May 2011) and increased concentration of power in higher-ranking positions, more often held by older academics (Lafferty and Fleming 2000). Changes in the nature of academic work and the stratification in conditions across ranks mean, whilst it is possible to conclude that older academics are typically more satisfied, it is impossible to conclude that job satisfaction of younger generations will increase as they progress in their career.

3.6 Discussion

When the CAP results on the attractiveness of the academic profession in Australia were first reported (Coates et al. 2009), the apparent dissatisfaction and its implications for future staffing were questioned. One vice chancellor claimed academics needed to 'get rid of the old view of what universities were like and ... get the new

normal', whilst another blamed the dissatisfaction on a small 'band of ticked-off senior lecturers' frustrated by a lack of career progress (Trounson 2009). This, in turn, triggered a series of angry reactions from academics arguing that these were typically management reactions ignoring the real issues and blaming it on staff unwilling to accept and support necessary changes. Our research presented in this chapter supports both positions.

Satisfaction tends to be higher amongst those who have recently been promoted and lower amongst midcareer academics. And Australian higher education has experienced profound change over the last 15 years in all areas that matter to its primary functions of teaching and learning and research: financial resources, competition, volume of students and the diversity of the student body, accountability, regulation and governance. At the same time, the core issues identified in this chapter are not new. The degree of satisfaction has been an issue for concern since the early 1990s, and academic time spent on nonacademic activities in combination with the perceived inability to spend sufficient time on research have been persistent factors contributing to these relatively low levels of satisfaction. It would be very difficult to ignore management responsibility for 'cumbersome administrative processes' as it would be equally difficult to deny institutional management and academic leadership responsibility for both a reasonable work-life balance and a reasonable workload distribution that reflects both institutional/departmental needs and staff interests and abilities. Leaving aside the question of 'blame' for the moment, at a minimum we must conclude that all of the above are persistent issues that look unlikely to be resolved in the very near future. This, first, raises the question of what this means for Australian academe in the coming years and, second, what the implications are for the governance and management of the university system and its institutions.

As regards the 'new normal', the best that can be said for Australian university life probably is that it will be far from normal. All the major institutional drivers have been turned from stable to dynamic. Universities are being confronted with a 'demand-driven system' meaning that the caps on funded student places are off and it is a free-for-all for the next years, or so it appears. This already has resulted in proactive behaviour by universities over enrolling to as much as 30+% in an attempt to capture market share in this new competitive environment. But, of course, no guarantees have been provided as to the price-per-student level in this open market system. The recent government response to the so-called base-funding review 'to establish enduring principles to underpin public investment in higher education' (Lomax-Smith et al. 2011, viii) gives little cause for optimism: 'expectations of new funding must be tempered, given the significant additional revenue streams that are now flowing to universities following the Government's response to the Bradley Review' (Evans 2011). This clearly suggests that increased numbers of students will not be accompanied by a comparable rise in government funding. Universities therefore will have to educate more students under the existing government allocations. Admittedly, these show an increase of A\$4 billion over the last 5 years, but in large part these are compensations for part funding not keeping pace with inflation and infrastructural needs. So whilst the government policy squarely is focussed on

increased participation, it is unlikely that additional funding will flow to the sector, especially in a context of international economic volatility. This brings the workload issues and the work-life balance for academic staff squarely back on the table.

However, if government policy is to become a reality, universities not only will have to deal with increased student numbers, they also will have to cater for an increasingly diverse student body as policy indicates significant increases in the proportion of students from low socio-economic backgrounds. Hence, the academic preparation of entering students will show a greater variability which we need to see in the context of problematic issue of teaching students basic skills, identified earlier in this chapter. Combined with the volume issue, this creates a challenging environment for both academics and institutional management.

Yet not only are the teaching variables in flux. As indicated before, Australia has had its first experiences with measuring research performance through the Excellence in Research for Australia project (ARC 2011). Whilst to some extent the outcomes of this exercise have been predictable, in the sense that the traditional research-intensive universities (Go8) have dominated, subsequent analysis also has demonstrated that in quite a few areas, other universities are punching well above their weight (Pettigrew 2011). This has further spurred the reputation race across the system with institutions either further backing their winners or wanting to up the ante across the board. At the same time, government is raising the innovation game by introducing the Collaborative Research Networks (CRN) programme, which 'is designed to encourage smaller less research-intensive and regional higher education institutions to develop their research capacity and adapt to a research system driven more strongly by performance outcomes by teaming up with other institutions in areas of common interest. The intention is that all participants in a collaborative network will benefit from the partnership, with flow-on effects for the research and innovation system as a whole' (DIISR 2011a). Together with this, a Research Workforce Strategy has been developed (DIISR 2011b) to address expected shortfalls in the number of qualified researchers. No doubt these are good and noble intentions, but they need to be addressed in a context where academics have indicated that they have problems finding sufficient time to engage in research activities.

Without going into the details of all of the above, it serves to highlight the fact that not only expectations are raised, from a government perspective, on increased teaching and learning outcomes and outputs but also on research outcomes and outputs contributing to innovation and productivity. These can be seen as a further specification of the generic statement made at the beginning of this chapter on a much more direct link between higher education and socio-economic growth and productivity, ultimately to be formalised in legally binding compacts between the federal government and individual institutions. This complex policy environment combined with the results of a number of studies on the academic workforce and degrees of satisfaction raises fundamental questions on institutional profiles and a reconceptualisation of the nature of the academic profession.

Our survey results, supported by various other studies, suggest that in order to keep the future academic workforce vibrant, motivated and satisfied, continuing current practices across the sector will not suffice. Simply increasing teaching loads

because of a growth in student numbers rather than employing more staff or increasing existing teaching productivities will only steer the sector on an irrevocable collision course which will have seriously damaging effects for our staff, students and institutional reputations. As has been argued by Coates and Goedegebuure (2010), trying to find the solution by further increasing the use of and dependency on casual staff may have serious consequences for quality and cohesion within institutions. Increasing productivity through better use of staff, technology and innovative teaching and learning methodologies appears an option given the results obtained by the National Center for Academic Transformation (NCAT) in the USA (NCAT 2012), but its potential for Australia is the object of a pilot project, the results of which have to be awaited. However, there is growing evidence that alternative approaches to teaching and learning can result in improved student learning, retention and completion whilst freeing up time for academic staff to engage in other relevant and rewarding work (University of Wollongong 2009).

Ultimately, however, Australian universities will have to bite the profile button. Whilst the National Protocols define an Australian university as an organisation engaged widely in teaching and research, it appears untenable in the face of the pressures identified above that all universities can uphold the holy trinity of the 40-40-20 workload model: 40% of each academic's time devoted to teaching and research, with the remaining 20% for service, administration and outreach activities. Our survey data clearly indicate that this fictitious distribution does not reflect the 2007/2008 realities. ERA results indicate that there is no equality in research performance. And our above discussion provides ample support for the argument that '40-40-20' needs to be buried and forgotten. This is not to say that universities should not engage in teaching and research, or that Australia should have 'teaching-only' institutions, but it is reinforcing the point made by Hattie and Marsh (1996) that the teaching-research nexus needs to be approached with care and an eye for diversity, and not as a blanket approach to either workload models or expectations on academic behaviour and productivity. It also implies that institutions should play to their existing strengths in terms of both teaching *and* research. This, in turn, implies the fundamental acceptance of differentiation across the Australian university sector and within its institutions.

The conclusion that Australian higher education is in need of further differentiation is not new (Meek et al. 1996) but so far has not been seriously acted upon by either the government or institutions. In itself this is not surprising as it is both a highly complex policy act to create an environment that promotes serious profiling and diversity and it is risky business from an institutional perspective and requires strong, visionary and persistent academic leadership. In the words of Niccolo Machiavelli, this type of change certainly is not for the faint-hearted. But the international environment and its own national policy settings are such that Australian higher education must confront this issue and act decisively.

Acting decisively will also mean that within institutions and as a profession, we will need to reconsider what academic careers in the twenty-first century truly entail, how we want to conceptualise progress and advancement, what appropriate reward structures are and how academia can effectively compete with other sectors in offering

an intellectually stimulating and rewarding environment that recognises *and* rewards different abilities of individual academics at different stages in their careers and defines an academic career in much more versatile and individually tailored terms than the current straightjacket of the A-B-C-D-E pyramidal ladder (for a further elaboration, see Coates and Goedegebuure 2010).

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Chapter 4

Job Satisfaction in a Diverse Institutional Environment: The Brazilian Experience

Elizabeth Balbachevsky and Simon Schwartzman

4.1 Introduction

Brazilian higher education is a known case of extreme diversity, in terms of both institutional settings and ownership. Among its more than 2,300 institutions, one can find examples of almost everything: from small, family-owned, isolated professional schools to huge research universities with annual budgets of more than two billion dollars. In the public sector, there are institutions owned by the federal government, state governments and municipalities. In the private sector, there are small, family-owned institutions; religious and community-based non-profit institutions and for-profit institutions of all sizes, including large universities owned by strong companies with shares listed on the stock market.

One would expect that job satisfaction of academics would vary according to the type of institution they work. Surprisingly, we find that satisfaction tends to be uniformly high regardless of the institutional setting. Moreover, the patterns of distribution of answers to questions that cover different aspects of job satisfaction tend to be the same, regardless of the huge differences in contracts and working. This chapter seeks to explore this paradox and to shed some light on how it is possible that academics working in such different conditions could sustain the same (high) degree of job satisfaction.

In order to achieve this goal, the chapter starts with an overview of Brazilian higher education, providing crucial information about Brazilian higher education and proposing a typology of institutions that underline the more relevant divides

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inside both the private and public sectors. Secondly, we look at the differences in contract and work conditions that characterise the academic world inside different types of institutions. Then, this chapter considers the issue of job satisfaction and the overall attitude towards the academic profession expressed by Brazilian academics. Although there are no relevant differences in the overall job satisfaction in different settings, it is possible to show that this satisfaction has different dimensions and characteristics according to the academic's place and standing within their institutions.

The data used in this chapter come from the third Brazilian National Survey on the academic profession, supported by the São Paulo Foundation for Science Support (FAPESP) and implemented in 2008, under the international project The Changing Academic Profession. The sample interviewed 1,200 Brazilian academics in all regions and covered all the diverse institutional environments present in Brazilian higher education. For the analysis, we choose to use the national database, instead of the one that is part of the international data bank, since it contains more detailed information regarding the institutions, which are essential for building our typology.

4.2 Brazilian Higher Education: Sources of Institutional Diversity

In spite of institutional maze described above, the provisions for degrees are unusually simple: traditionally, all higher education institutions in Brazil are allowed to grant the same first degree – the bachelor degree. Following the old Napoleonic tradition, the bachelor degree in Brazil is both a professional certification and an academic credential entitling the holder to advance his/her studies into postgraduate studies. In order to be assured that the certifications are of legal equal value, an elaborate system of formal regulations has been developed since the 1930s, when the first university law was enacted. The entire system is controlled by a federal council of education and the bureaucracy of the Ministry of Education's powerful secretary of higher education. These regulatory entities are responsible for supervising bachelor curricula contents, authorising the opening of new undergraduate programmes in private nonuniversity institutions, imposing the minimal infrastructure conditions under which a programme will be permitted to operate, recognising new private institutions, accrediting private institutions with university status, establishing the guidelines for institution and programme evaluations to be carried out by a specific branch of the ministry and so on. Since Brazil is a federation of 27 states, each state is also entitled to have its own council of education, in charge of supervising their own higher education system (state- and municipality-owned institutions). While this arrangement is of small relevance to poor states dependent on federal aid, it means strong autonomy for state universities in the richer states.

Table 4.1 Brazilian higher education system: major figures, 2004

Ownership and type of institution		Institutions	Undergraduate enrolments	Graduate enrolments ^a	Academic positions	
					Total	Full time
Federal	University	55	696,693	Na	64,842	56,912
	Nonuniversity	39	56,154	Na	7,386	6,303
	Total	94	752,847	85,849	72,228	63,215
State	University	38	437,044	Na	39,883	30,914
	Nonuniversity	46	43,101	Na	3,262	1,531
	Total	84	480,145	46,388	43,145	32,445
Municipal	University	7	56,859	Na	3,675	1,141
	Nonuniversity	60	61,317	Na	3,929	268
	Total	67	118,176	8,053	7,604	1,409
Publics totals	University	100	1,190,596	Na	108,400	88,967
	Nonuniversity	145	160,572	Na	14,577	8,102
	Total	245	1,351,168	140,290	122,977	97,069
Private for-profit	University	44	958,000	Na	40,799	13,953
	Nonuniversity	1,735	1,941,763	Na	124,339	18,734
	Total	1,779	2,899,763	Na	165,138	32,687
Private philanthropic	University	42	567,124	Na	32,376	10,225
	Nonuniversity	248	297,841	Na	20,326	3,982
	Total	290	864,965	Na	52,702	14,207
Privates totals	University	86	1,525,124	Na	73,175	24,178
	Nonuniversity	1,983	2,239,604	Na	144,665	22,716
	Total	2,069	3,764,728	28,026	217,840	46,894
Country totals	University	186	2,715,720	Na	181,575	113,145
	Nonuniversity	2,128	2,400,176	Na	159,242	30,818
	Total	2,314	5,115,896	168,316	340,817	143,963

For institutions, undergraduate enrolments and academic staff information – Source: Brazilian Ministry of Education, Higher Education Census of 2009

Na information not available

^aThese figures include students enrolled in Master of Science Programmes, Professional Master Programmes and Doctorate Programmes – Source: CAPES Foundation, 2009

A good picture of the intricate institutional environment created by this vast diversification is provided in Table 4.1, below, where the main figures of Brazilian higher education are displayed:

In this table, one can see that even though the public sector accounts for only a minority of the country's undergraduate education (26% of all enrolments), this is the best endowed sector. Of the total, 88% of the undergraduate students in the public sector attend programmes offered by universities, and among the academic staff hired by these institutions, 82% hold stable full-time contracts. Inside the public sector, full-time contracts allow for an upper-middle-class life standard. Most academics with such contracts tend to concentrate their professional life in their

academic institution. The public sector is also responsible for 83% of all enrolments at the graduate level. In the private sector, on the other hand, almost 60% of all undergraduate students are enrolled in nonuniversity institutions, and only 15.7% of the academics employed at these institutions have access to full-time contracts.

From these figures, one quickly reaches the conclusion that higher education in Brazil is also sharply stratified, with a small number of federal universities at the top and a vast number of small private-owned institutions at the base. In spite of the general correctness, this picture is misleading in several ways. First, although public institutions are, in general, better endowed and institutionalised than the private ones, there are relevant differences inside the public sector. The most important line of differentiation is the size of graduate education. Graduate education is strongly connected with research: graduate programmes are one of the preferred references for science and technology support agencies. Even when research grants are directed to other institutional settings (individual researcher, research centres, laboratories, etc.), the link between researchers with a well-evaluated doctoral programme is usually a decisive issue for support to be granted (Durham and Gusso 1991; Balbachevsky and Schwartzman 2010). Thus, the institutions that are able to support a strong commitment to graduate education are also the ones that have a more active research profile. And, following the well-known “Matthew effect” (Merton 1968), these are also the institutions that are able to attract a high proportion of PhD holders from among their academic staff, to draw in the majority of the country’s public resources for science support, by providing a good up-to-date infrastructure for research, and to attract the most talented and competitive scholars in the country. None of these research universities have less than 30% of all enrolments at the graduate level, and none has fewer than 70% of their academic staff with a doctorate. They are few in number, 28 in the last HE census, but strong in the country’s science landscape. Together, they awarded more than 80% of the doctorates granted in the country in 2009. While the majority of these institutions are federal universities, the two most prestigious ones – the University of São Paulo and the University of Campinas – are state-owned institutions.

The other public institutions, even when holding university status, are undergraduate-oriented institutions. They offer good quality contracts, usually full-time with a small teaching load, but they provide fewer opportunities for access to research support, since graduate education is a minor endeavour. Their laboratories and equipments are outdated, and their library services are of poor quality. Thus, they have difficulty in attracting and securing academics with doctoral degrees. These institutions not only have a small number of PhD holders but also inside each institution, they tend to be concentrated in a few academic units (Oliveira 1984). In these dynamic micro-environments, graduate education and research development are usually oriented to a research agenda mainly focused on regional and local problems (Coutinho et al. 2003). It is for this reason that we labelled these institutions “public regional universities”. Most of the federal-owned and the majority of the state-owned universities fall in this category.

The last two decades witnessed strong processes of differentiation and stratification inside the private sector with the growth of a segment of prestigious elite institutions

catering for children from affluent families. Some of these institutions are modernised Catholic universities or other denominational institutions, but many are lay institutions offering programmes well regarded in the labour market. While these institutions are mainly undergraduate-oriented institutions, they value their academic staff degree and research reputation because these are signs of quality in the market they operate. Some of them are highly innovative both in teaching – adopting new learning technologies and innovative problem-oriented undergraduate programmes – and in exploring their staff’s competence to offer professionally taught master’s and other graduate programmes, as well as consulting services for enterprises and private clients. For these institutions, the academics’ professional connections with the corporate world are assets. The same holds true for the academics’ scholarly and professional reputation. They lend credibility to the institution’s claims that attending their undergraduate programmes improves the students’ opportunities for good placements in the job market.

Part-time contracts based on the numbers of hours taught, the dominant work arrangement in the private sector, are usually associated with several additional benefits defined either by the Brazilian labour legislation or through collective bargaining between teacher’s unions and the universities, or according to the institutions’ internal policies. All taught-hours-based contracts pay for some of the extra classwork (usually they have provisions for adding an extra amount that represents one-fifth of the value paid for in-class work) and allow for the legal rights of paid vacation and Christmas’ 13th salary.

In the best private institutions, these contracts also formally recognise and pay extra time for the academics doing tutorial and advisory activities or research or consulting. Being not an exclusive contract means also that the academic – even when holding a 40 h per week contract (equivalent to a full-time contract) – is free to pursue any other initiative of professional interest in his/her free time, without notifying the institution. Only the public sector operates with a full-time, exclusive contract, where the academic is committed to develop all professional activities at the university to which he/she holds the contract. In this format, the academics are supposed to inform the institution and request for a permit when engaging in any kind of professional activity outside the university.

Notwithstanding these recent developments, most institutions in the private sector in Brazil (as well as the municipal institutions) are still confined to a mass education market, where the lower price charged for education is the main differential. In this segment, the most usual institutional format is a small isolated professional school offering few undergraduate programmes in the same professional track. Most are family-owned institutions with poor infrastructure for students and academics. These institutions have little room for institutional development. Nevertheless, in the last 10 years, this segment experienced a strong consolidation process that gave origin to a number of huge for-profit universities, offering dozens of different undergraduate programmes in a diverse array of fields and exploring new market niches such as life-learning and taught master’s programmes. Regardless of their size and the entrepreneurial initiatives launched by the institutions’ senior management, they are still confined to a kind of “commodity-like” market, where the gains are mainly

Table 4.2 Differences in work conditions by type of higher education institution

Percentage of academics with	Type of institution			
	Public research universities (%)	Public regional universities (%)	Private elite institutions (%)	Private mass institutions (%)
Full-time contract	91.1	79.7	51.5	22.0
Commitment to more than one academic institution	13.4	19.9	29.2	47.4
Work outside the academic market	13.8	21.6	35.1	42.1
Hold a PhD	94.3	64.2	74.9	31.8
Teaching appointment in graduate education ^a	83.7	45.3	60.8	26.1
Teaching appointment in doctoral programmes	47.8	16.2	19.5	1.9
Access to external funds for research	61.0	30.1	27.5	8.6
International connections ^b	43.1	22.0	27.4	9.0

Source: CAP – Brazil, Brazilian National file, 2008

^aTeaching appointment in graduate education: teach in academic master programmes, doctoral programmes or professionally oriented graduate programmes

^bInternational connections: reported international peers in a research project or published with colleagues abroad

sought in improving the institution's operational scale. As such, they have an academic environment almost as poor as the one found in the small family-owned isolated professional schools.

4.3 Differences in Conditions of Work, Commitments and Internal Governance

As one would expect, conditions of work and academic life experiences vary considerably among the different types of institution described above. Table 4.2 provides some figures that illustrate this point.

As described above, access to stable full contracts is commonplace in the public sector. Academics working in public institutions also usually confine their professional responsibilities to the academic market and tend to concentrate all the academic life in just one institution. On the other hand, the academic environment present in the research-oriented universities is significantly more dynamic. Inside research universities, almost all academics (94.3%) hold a PhD, and 83.7% reported holding a teaching appointment in a graduate programme (47.8% in doctoral programmes), compared to 45.3% in regional institutions (16.2% in doctoral programmes). As expected, the research environment is also more dynamic: 61% of the academics employed in research universities informed that they had access to external funds

for research in the last 2 years (compared to only 30.1% in the regional institutions), and 43.1% reported connections with international peers, either when developing research projects or publishing with a colleague from abroad (contrasted with only 22% in the regional universities).

The indicators for the private sector are less positive. Academics working in private institutions face more difficulties in securing access to full-time contracts – only 51.5% of the academics employed at private elite institutions responded positively to this question and only 22% in the mass-oriented institutions. The pattern of responses to other questions shows relevant differences between the institutional environment in elite and mass-oriented institutions. The mass-oriented institutions are strongly oriented to undergraduates and provide little support for other activities. Among the academics working in these institutions, 47.4% give classes in more than one academic institution, and only 26.1% have experience with graduate education. Only 8.6% have access to funds for research, and just 9.0% reported any kind of connection with foreign colleagues. Elite-oriented institutions are characterised by a more complex institutional environment, offering different alternatives for academics commitments: among the academics working in these institutions, 79.8% have academic commitments with just one institution, 60.8% reported links with graduate education, and 27.5% have access to external support for research and links with international peers. On the other hand, academic careers in the private sector – both at elite and mass institutions – show a higher degree of permeability to the external environment than those prevailing in public sector. In fact, 35.1% of the academics employed at the elite private institutions reported also having work responsibilities outside the academic market, and 42.1% of the academics employed by the mass private institutions gave the same answer.

Different institutional environments also create different demands for the diverse kind of activities comprehended by the academic life. As shown in Table 4.3, there are substantial differences in the way academics distribute their working time between research, teaching and other academic activities when comparing different types of institutions.

In fact, while academics employed in public institutions tend to report that they devote more time to academic activities in general (40.8 and 40.5 h per week for academic employed at research universities and regional institutions, respectively), academics employed at research universities – as expected – tend to report more time spent on research-related activities and less time for teaching-related activities. Among these academics, the balance between teaching and researching reaches the lower point: on average, they spend 1.5 h on teaching for each hour spent on research. At the regional institutions, academics tend to spend 2.2 h in teaching-related activities for each hour spent on research.

Academics in the private sector reported a shorter academic week (38.7 h for those employed at elite institutions and 34.8 h for those employed at mass-oriented institutions), with spare time for other, nonacademic, activities averaging 6.8 h for academics employed at elite institutions and 9.8 h for academics in mass-oriented institutions. All up, 56% of the academics with jobs in mass private institutions reported that the length of a typical week was shorter than 40 h. The balance between

Table 4.3 Differences in the average time devoted to research, teaching and other academic and nonacademic activities by type of institution

Type of institution	Mean	Hours per week spent on teaching ^a	Hours per week spent on researching ^a	Teaching/researching balance	Hours per week spent on all academic activities ^b	Hours per week spent on other nonacademic activities ^c
Public research universities	Mean	15.4	14.6	1.5	40.9	3.3
	N	237	237	220	237	237
	Std. deviation	8.6	10.1	1.5	12.2	7.8
Public regional universities	Mean	19.0	11.6	2.2	40.5	4.7
	N	290	290	251	290	290
	Std. deviation	11.4	9.1	2.9	14.2	8.6
Elite private institutions	Mean	18.4	10.1	2.3	38.8	6.8193
	N	166	166	130	166	166
	Std. deviation	11.6	9.8	2.9	16.49781	11.2
Private mass institutions	Mean	20.8	5.6	3.8	34.8831	9.8
	N	479	479	303	479	479
	Std. deviation	12.3	6.6	4.0	17.1	11.2
Total	Mean	18.9	9.6	2.6	38.0	6.8
	N	1,172	1,172	904	1,172	1,172
	Std. deviation	11.5	9.3	3.2	15.6	10.3
ANOVA test	F	12.5	67.6	25.7	11.9	28.7
	Significance	.000	.000	.000	.000	.000

Source: CAP – Brazil, Brazilian national file, 2008

^aIncludes all respondents, taking as reference a typical week with classes in session. For academics reporting no teaching responsibilities, teaching time is equal zero. For academics reporting no research activity, research time is equal zero

^bIncludes all time reported for teaching, research, administration, services and other academic activities, taking as reference a typical week with classes in session

^cTime available for other, nonacademic, activities using as reference a standardised working week of 40 h. Academics that reported 40 or more hours spent in academic activities had this variable registered as zero

time devoted to teaching and research by the academics employed at private elite institutions is similar to the one reported by the faculty employed at public regional institutions: 2.3 h spent on teaching-related activities for each hour spent on research. At the mass-oriented private institutions, 64% of the academic staff reported a commitment of some hours each week undertaking research-related activities. Even so, the balance between teaching and research strongly favours teaching over research: the academic staff employed at mass-oriented institutions average 3.8 h in teaching for each hour dedicated to research. For another 36% of the academics working in these institutions, teaching is the only meaningful academic activity (predominantly undergraduate teaching), since they indicated no time spent on research or outreach services.

Patterns of institutional governance are also widely different between institution types (Balbachevsky and Schwartzman 2010). The questionnaire used in this research covered a range of aspects of institutional governance as experienced by academics. For this article, it is enough to present one central dimension of these processes which is the way institutions supervise academics' activities in performing their central roles, that is, teaching and doing research. Related to this issue, the academics in our sample were asked who was in charge of evaluating their performance both in teaching and research. In a multiple-response question, they were presented with a list including: "Your peers in your department or unit", "The head of your department or unit", "Members of other departments or units at this institution", "Senior administrative staff at this institution", "Your students", "External reviewers" and "Yourself (formal self-assessment)". A factor analysis with these items identified two main dimensions: one related different ways of peer control over research and teaching, and the other related to vertical (management) controls over the same activities. This information was used to build four different scales measuring the strength of peer and vertical (management) control over the two activities. Table 4.4 provides the main figures for analysing how academics perceive these dimensions in each type of institution.

Table 4.4 provides important clues regarding how different kinds of institution vary regarding the style of management and internal governance. Teaching-related activities are perceived to be under strongest vertical control by academics from the mass-oriented institutions (0.64). Academics from private elite institutions also report strong vertical control (0.55) over this dimension. For academics in the public sector, the strength of vertical controls tends to be less intense. In average, responses from the academics of regional universities produce an average index of 0.46, while the average score for academics from research universities is only 0.39.

Peer evaluation is mostly directed towards research and is stronger for academics from research universities (0.48) than for academics from regional universities (0.40). For the academics employed at the private sector, peer controls over research are weaker among academics of the private elite institutions (0.30) and almost inexistent with the academics of the mass-oriented institutions (0.15).

These figures are indicative of the strong collegiality that predominates within public sector, especially in the research-oriented institutions. It also provides clues

Table 4.4 Brazil: relative strength of peer control and administrative (vertical) control over research and teaching-related activities

Type of institution	Teaching evaluation: strength of vertical controls ^a	Teaching evaluation: strength of peers' controls ^b	Research evaluation: strength of vertical controls ^a	Research evaluation: strength of peers' controls ^b
Public research universities	Mean .39 N 246	Mean .28 N 246	Mean .22 N 246	Mean .48 N 246
Public regional universities	Std. deviation .28 Mean .46 N 294	Std. deviation .28 Mean .29 N 296	Std. deviation .27 Mean .22 N 171	Std. deviation .32 Mean .40 N 293
Elite private institutions	Std. deviation .30 Mean .56 N 171	Std. deviation .26 Mean .23 N 171	Std. deviation .25 Mean .21 N 171	Std. deviation .34 Mean .30 N 171
Private mass institutions	Std. deviation .25 Mean .64 N 487	Std. deviation .27 Mean .21 N 487	Std. deviation .27 Mean .21 N 486	Std. deviation .34 Mean .15 N 487
Total	Std. deviation .266 Mean .53 N 1,198	Std. deviation .27 Mean .25 N 1,200	Std. deviation .27 Mean .22 N 1,198	Std. deviation .25 Mean .30 N 1,197
ANOVA tests	Std. deviation .29 F 51.3 Significance .000	Std. deviation .27 F 7.9 Significance .000	Std. deviation .26 F .07 Significance .973	Std. deviation .33 F 77.9 Significance .000

Source: CAP – Brazil, Brazilian national file, 2008

^aManagement (vertical) control: “The head of your department or unit”, “Senior administrative staff at this institution”, “Your students” and “Yourself (formal self-assessment)”. Scale varies from 0 to 1, 1 meaning all vertical controls are recognised by the academic

^bPeer controls: “Your peers in your department or unit”, “Members of other departments or units at this institution”, “External reviewers”. Scale varies from 0 to 1, 1 meaning that all peer controls are recognised by the academic

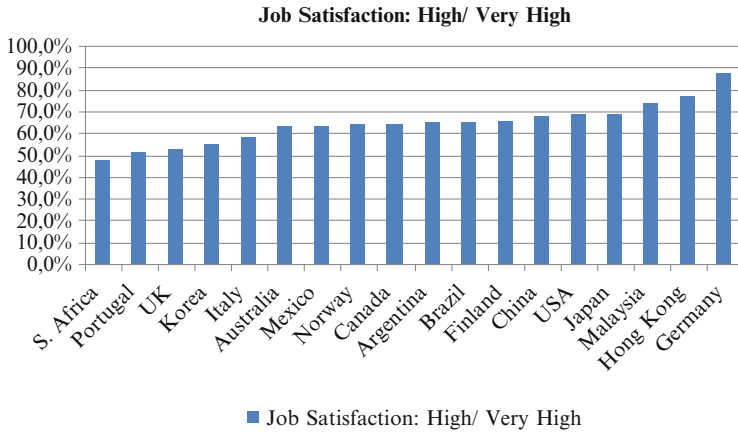


Fig. 4.1 Overall job satisfaction (high, very high) among academics of 18 countries (Source: CAP International Data Bank)

to estimate the strength of the vertical controls inside the private sector, especially regarding the activity perceived as strategic for these institutions, that is, teaching for undergraduate students.

4.4 Job Satisfaction in Diverse Institutional Environments

In spite of all the diversity summarised in the pages above and regardless of the dissimilar situations of employment and work experienced by academics in different institutional settings, job satisfaction is high among Brazilian academics. Among the 18 countries that were part of the Changing Academic Profession Project in 2008, Brazilian academics were positioned 8th regarding the overall job satisfaction among all academics, as one can see in Fig. 4.1.

What is more relevant, differences in work and contract conditions seem to have no significant impact over the way academics evaluate their satisfaction about their current job, expectations for the future and other dimensions related to this issue. Table 4.5 shows that Brazilian academics tend to converge to the same pattern of answers, regardless of the institutional environment that surrounds their work as academics.

Table 4.5 shows that most Brazilian academics agree that there are good prospects for young academics in the profession (68% disagree when asked if they think that this is a poor time for any young person to begin an academic career) and have no regrets in having choosing an academic career as their main professional commitment (73.9%) and rate their overall satisfaction with the professional life as high or very high. The only dimension where academics are less supportive is

Table 4.5 Brazil: job satisfaction (different dimensions) by institutional setting

	Public research universities (%)	Public regional universities (%)	Elite private institutions (%)	Private mass institutions (%)	Total (%)
How would you rate your overall satisfaction with your current job? (high, very high)	68.2	60.8	70.6	63.4	64.8
This is a poor time for any young person to begin an academic career in my field (disagree, strongly disagree)	63.9	71.6	65.9	68.0	67.7
If I had to do it over again, I would not become an academic (disagree, strongly disagree)	71.3	76.5	74.6	73.4	73.9
My job is a source of considerable personal strain (disagree, strongly disagree)	44.3	40.1	33.7	41.7	40.7

Source: CAP – Brazil, Brazilian national file, 2008

Table 4.6 Overall job satisfaction index by father's educational attainment

Father	Mean	N	Std. deviation
Entered and/or completed tertiary education	3.6	414	1.1
Entered and/or completed secondary education	3.6	249	1.1
Entered and/or completed primary education	3.8	401	1.0
No formal education	3.9	86	.9
Total	3.7	1,150	1.0

Source: CAP – Brazil, Brazilian national file, 2008

ANOVA test: 4.500, sig.: .004

the one related to the degree of stress created by the commitments of the academic profession. Here, the majority recognises that their job is a source of some strain in their personal life.

The relatively unchanged pattern of distribution of the answers is a surprise, especially if one considers the differences regarding contract and conditions of work in different types of institutions. In fact, regression exercises using the available information related to the academic's conditions of contract and patterns of work to explain diverse degrees of job satisfaction support the hypothesis that none of these two dimensions are relevant for explaining differences in the way Brazilian academics evaluate their satisfaction regarding the academic profession.

These results may be partially explained by a feeling of attainment shared by all academics coming from poor families. As said elsewhere, many academics in Brazil experienced an impressive upward movement in their lives (Balbachevsky et al. 2008). Of the total, 43.5% of them come from families where the father had only primary education or less. This profile is found in all types of institutions. Hence, when comparing their achievement with their past history, it is not surprisingly that many share a feeling of contentment and success, regardless the objective conditions of work they face in their daily life.

Table 4.6 provides some figures that support this hypothesis.

In Table 4.6, satisfaction is measured by a syncretic index that combines all questions related to this dimension presented in the pages above. It is a simple index that represents the average answer given by the respondent, considering his/her choices in all questions listed above. The alternative presented to them ranged from 1, strongly agree, to 5, strongly disagree. For computing the index of overall satisfaction, all answers were recoded in the same direction, so that the higher the index, the higher the satisfaction the academic expressed towards the profession. As one can see, job satisfaction does increase as the educational gap between generations expands. For academics coming from families whose father entered or completed higher education, the index is 3.6, while among those coming from families whose father had no formal education, it reaches 3.9.

Another plausible partial explanation is related to the fact that the huge institutional diversity of Brazilian higher education is coupled together with a relative homogeneity of the conditions of contract and work inside each kind of institution.

So, for example, achieving a full-time stable contract inside the public sector is the norm granted to everyone at entry, regardless the academic achievements or degree. Part-time contracts are specifically asked for by those with professional commitments outside the academy: lawyers, engineers, economists, business administrators and so on. The teaching load is equal to everyone, regardless the rank, and is fixed by contract. The old-fashioned collegial and “democratic” governance style that prevails in all public system creates a benevolent environment that puts small pressure over the individual academics. In Brazil, as in many Latin American countries, “democratic governance” when applied to the universities is a term used to describe an inner-oriented decision-making process blinded to almost all external pressures. The main expression of “democratic” governance is the selection of institution’s authorities by means of internal elections where all university’s bodies participate: students, academics and employees (Bernasconi 2007; Schwartzman 1992). Thus, academics are more or less free to pursue their own projects in teaching, research and/or outreach activities, without strong interferences from above. Even if lately the government has tried to apply some pressure over public university performance, this pressure has been in the form of incentives, or as “price signals”, in order to achieve the desirable response (Braun 2003). In general, one can assume that until now public institutions have been preserved from direct competition and harsh pressures (Balbachevsky and Schwartzman 2011). In this protected environment, it is easy to accommodate the diverse interests and goal pursuits by different academics.

In the private sector, full-time contracts may only mean that the academic is pinning all hopes in a single roll of the dice. Full-time contracts are not associated with stability (since this is not recognised by the labour laws), and it does not translate into more research time or a smaller teaching load. On the other hand, since the contracts in the private sector do not presume integral dedication, academics are free to engage in their own professional projects without interference from the institution. So, among those that have more interest for research, it is not an unusual situation to hold a secondary (frequently informal) link with other institution – often a public institution – where she/he develops her/his own research projects or collaborates in projects developed by a senior researcher, often her/his former advisor. (In fact, 65% of the respondents from the private sector reporting they had done research in the previous 2 years also declared that their research was developed in another institution.) Those with a more entrepreneurial orientation have room to develop other commitments outside the academic marketplace, either by setting their own enterprise or working as consultant and even as employee. In such environment, it is not difficult for the academic to sustain a sense of independence that is often coupled with little commitment to the institution (but not to the academic profession).

In this scenario, the search of the dimensions related to the variables associated to the esteem for their academic job should take in consideration the conditions of work and the peculiarities of the general environment to be found inside the different kinds of institution.

4.5 Different Institutions, Different Sources of Satisfaction

In this section, we will try to establish which issues are associated with job satisfaction inside each kind of institution described above. Our main hypothesis is that each kind of institution is marked by a particular environment and promotes different values. So, for academics working in different types of institution, job satisfaction is linked to different dimensions of academic life.

4.5.1 *Sources of Contentment for Academics from the Public Research Universities*

From the point of view of the academics, research universities can be characterised by its homogeneous institutional environment. Besides offering similar contracts and conditions of work, these institutions are also characterised by the dominance of an academic culture “grounded in individual competence and freedom to choose their own subjects of research, study and reflection” (Schwartzman and Balbachevsky 1996, p. 270). As elaborated in another work (Balbachevsky 2000), this culture subsumes the role of teaching to the role of research and knowledge production (inside these universities, 68% prefer research over teaching, compared to 49% in all sample). It is an open culture in which the main source of prestige is the recognition gained from peers in the same field, which are – to a great extent – external to the institution’s control (Balbachevsky 2000, p. 138). Academics working in these universities are proud of their institution and the place it holds in the Brazilian higher education landscape, but they are also more or less oblivious of the occasional attempts from the institution’s top-level administrators to control or evaluate their performance. They are more interested in the rank their graduate programme achieves in the nationwide peer evaluations organised by the Ministry of Education than on any internal constraints. And, since research support is mainly provided by external sources, usually from federal and local science foundations, the constraints that are more conspicuous to them are the controls and exigencies put by these foundations (Balbachevsky 2007).

Table 4.7 explores the issues associated with job satisfaction inside these institutions. To achieve these results, we produced a factor analysis using principal component analysis for extraction method and varimax with Kaiser normalisation method for rotation. In this table, as well as all other tables presenting factor analysis results, cells with bold underlined characters identify the issues that are more strongly associated with the component described at the column.

Table 4.7 provides relevant indications that job satisfaction inside research universities is related to the strength of collegiality in institution’s governance. These institutions in Brazil are strongly insulated from all external pressures and forms of control (Balbachevsky and Schwartzman 2011). Their academics’ good research performance means that they are successful in assuring support for their research-related endeavours.

Table 4.7 Public research universities: factor analysis for overall satisfaction (composite index): rotated component matrix

	Component				
	Collegiality	Research environment	Seniority	Research profile	Participatory demands
Overall satisfaction index	.408	.242	.031	.083	.050
Composite index for satisfaction for research support	.177	.638	-.148	.005	-.251
Overall influence (weighted by the institutional level)	.429	.175	.511	.263	-.050
Number of years at the current institution	.022	-.124	.803	-.042	.220
Quality of institutional management	.808	.398	.037	.098	.090
Intensity of inbreeding experience	.017	-.133	-.075	.727	-.067
Research position (director, associated, collaborator, solo)	-.089	.023	.029	.532	-.319
I am kept informed about what is going on at this institution	.686	.244	-.130	-.024	-.149
Lack of faculty involvement is a real problem	.018	-.349	.614	.025	.417
Students should have a stronger voice in determining policy that affects them	-.023	.109	.053	-.100	.790
Considering the research quality when making personnel decisions	.315	.779	.140	-.012	.002
Considering the teaching quality when making personnel decisions	.340	.670	.131	.069	.099
A cumbersome administrative process	-.559	-.087	-.136	-.207	-.118
Collegiality in decision-making processes	.758	.181	.049	-.047	-.113
A top-down management style	-.728	.192	-.133	.193	.011
A strong performance orientation	.077	.714	.031	-.067	.207
Good communication between management and academics	.736	.376	-.008	.079	.116

Source: CAP – Brazil, Brazilian national file, 2008

Extraction method: principal component analysis

Rotation method: varimax with Kaiser normalisation

Rotation converged in six iterations

This performance also lends prestige and authority to the university, so it has strength and authority to resist pressures and other demands put by political and social actors. As discussed in another work (Balbachevsky and Schwartzman 2011) inside these institutions, collegiality tends to be the most relevant form of power, and the collegial instances are central for decisions related to the academic's quotidian. The centrality of this dimension explains why it is so relevant to create a satisfactory environment for the academics.

4.5.2 Sources of Contentment Among Academics from Public Regional Universities

Public regional universities are marked by a much more diverse internal academic environment than the one described for the research universities. Diversity does not come from differences in contract and conditions of work. Again, these dimensions are more or less homogeneous and derive from the terms of contract accessible to all academic staff. Heterogeneity is produced by contrasts in values, world views and aspirations held by different parts of the academic staff (Balbachevsky 2000). In fact, inside the Brazilian academic culture, there is a strong subculture characterised by the dedication to undergraduate education and by the primacy it attributes to teaching (not implying a commitment to scholarship) over all other activities. This subculture is usually associated to academics with lower degrees (but with a full-time contract). It may be also the case of PhD holders that, by lack of interest or faulty research experience when doing the doctorate, are not as successful in the role of a researcher as in the role of a teacher.

This is a self-referent culture. Inside it, “the professional identity is not defined by the individual's achievements as an independent scholar and researcher but by affiliation to an institution and a group with whom she/he shares the daily problems, achievements, and routines of academic life” (Schwartzman and Balbachevsky 1996, pp. 271). For this group, autonomy is to be found in the intrinsic rewards produced by the special relationship they build up inside the classroom. In this sense, they have a strategy very similar to the one described by Etzioni and collaborators (1969) regarding the semiprofessions. As put by Lortie (1969), when analysing the conditions for teachers' autonomy in the primary education: “It is clear that intrinsic rewards are dominant for this group (...) Since the teacher's reward depends primary on what takes place in the classroom, she can be relatively independent of benefits controlled by administrators and peers” (Lortie 1969, 33–34).

This strategy also implies renouncing the merit-based hierarchy that is one of the foundations of the academic profession. For the academics sharing this world view, the only acceptable basis for differentiation inside the academy are those that come from external conditions that could, in thesis, be extended to everyone, regardless considerations about performance, reputation and so on. This perspective enables us to understand the roots and the centrality of the egalitarian demands inside Brazilian academic culture. As put in another paper (Schwartzman and Balbachevsky 1996),

it is among this group of academics that “one can find some of the central dilemmas that are common to all process of professionalisation: the conflict between the ideals for collectivist trade unions and the individualistic liberal professions; the opposition between the values of personal achievements and those of the professional community; and, consequently, the spaces that are open or closed for intellectual growth, the development of competence, and the strengthening of social responsibilities” (pp. 271). For this analysis, we included in this group all those with a master’s or lower degree, working full-time for a public regional university. In order to understand how different academic cultures have an impact on the sources of satisfaction with the academic profession, we have presented the results for the factor analysis for the PhD holders with full-time contract and master’s or less, also with full-time contract, separately.

As one can see in Table 4.8, in the case of the PhD holders working in regional universities, job satisfaction is related to the more prosaic issues of university’s infrastructure. Two other issues are related to job satisfaction: the composite index that provides the academic’s average evaluation of different aspects of the institution’s infrastructure for teaching and for research.

For the academics with master’s or lower degree, satisfaction is related to personal estimation of her/his overall influence inside the university, as presented in Table 4.9.

The differences in the sources of job satisfaction among PhD holders and those with lower degrees inside the regional universities provide interesting clues regarding the internal environment in these universities. For the former, the commitments to research and the links with an external community of peers make the university almost invisible except for the material support they need for their activities. For the academics with limited academic credentials, the causes for satisfaction lie in their engagement in the institution’s daily life and the sense of influence derived from it.

4.5.3 Job Satisfaction Among Academics from Private Elite Institutions

Private elite institutions present the most heterogeneous institutional environment of all academic institutions in Brazil. First, diversity is produced by the variety of institutions. In this group, one will find old, well-regarded Catholic universities; other respected denominational institutions; new, ascending, for-profit institutions that gained prestige offering tailor-made undergraduate and professional graduate programmes targeting well-paid niches in the job market and others linked to prestigious non-profit research foundations and prestigious think-tanks.

Second, diversity is also present inside these institutions. Being placed outside the benevolent umbrella of the public sector, they cannot afford to offer the same generous terms of contract to all academics. Nevertheless, to be attractive to the families of the upper middle class, they have to sustain a more rich and dynamic academic environment than the one found in the mass-oriented

Table 4.8 Public regional universities: factor analysis, rotated component matrix, for PhD holders with full-time contract

	Component			
	Collegiality	Performance orientation	Satisfaction with infrastructure	Participatory demands
Overall satisfaction index	-.008	-.135	.628	-.075
Composite index for satisfaction with teaching support	.173	.311	.710	.023
Composite index for satisfaction for research support	.204	.185	.821	-.104
Overall influence (weighted by the institutional level)	.459	.169	.432	-.015
Quality of institutional management	.720	.392	.264	-.347
I am kept informed about what is going on at this institution	.803	.111	.103	.201
Lack of faculty involvement is a real problem	.028	-.181	.111	.803
Students should have a stronger voice in determining policy that affects them	-.063	.349	-.175	.647
Considering the research quality when making personnel decisions	.200	.834	.076	-.089
Considering the teaching quality when making personnel decisions	.258	.831	.177	.013
A cumbersome administrative process	-.356	-.161	-.183	.592
Collegiality in decision-making processes	.833	.073	.034	-.058
A top-down management style	-.693	-.070	-.129	.236
Good communication between management and academics	.658	.320	.108	-.190

Source: CAP – Brazil, Brazilian national file, 2008

Extraction method: principal component analysis

Rotation method: varimax with Kaiser normalisation

Rotation converged in five iterations

Bold underlined entries identify the issues more strongly associate with each dimension in the rotated matrix created by the factor analysis

institutions. Thus, they need to counter with a more engaged academic staff. To accommodate these diverging drives, these institutions need to diversify roles and contracts within their academic staff members. They usually counter by having an academic core composed of prestigious academics, well-regarded teachers, distinguished scholars, renowned researchers and acclaimed professionals in the job market and a larger staff composed of academics hired to give a fixed number of classes. In a small number of institutions, one can even find a kind of “division of labour”, with some academics hired in the role of scholars and researchers – with their performance measured by the number of articles

Table 4.9 Public regional universities: factor analysis, rotated component matrix, for master's or lower degree holders and full-time contract

	Component				Influence
	Strength of downward communication	Research support and priority	Collegiality	Participatory issues	
Overall satisfaction index	.147	-.007	.160	.069	.842
Composite index for satisfaction with teaching support ^a	.438	.227	.059	-.692	.127
Composite index for satisfaction for research support ^b	.339	.497	.272	-.428	-.084
Overall influence (weighted by the institutional level) ^c	.337	-.159	.206	.065	.568
Quality of institutional management	.858	.252	.325	-.090	-.034
I am kept informed about what is going on at this institution	.564	.239	.474	-.010	-.116
Lack of faculty involvement is a real problem	-.098	-.175	.503	.565	.107
Students should have a stronger voice in determining policy that affects them	.160	.216	-.029	.764	.036
Considering the research quality when making personnel decisions	.141	.879	.180	.053	.023
Considering the teaching quality when making personnel decisions	.160	.841	-.081	-.018	.121
A cumbersome administrative process	-.766	-.158	.022	.176	-.146
Collegiality in decision-making processes	.144	.332	.762	-.059	-.081
A top-down management style	-.136	.062	-.679	-.008	-.072
Good communication between management and academics	.861	.054	.074	.075	-.121

Source: CAP – Brazil, Brazilian national file, 2008

Extraction method: principal component analysis

Rotation method: varimax with Kaiser normalisation

Rotation converged in seven iterations

^aThe index was produced by taking in consideration the answers given by the respondent to the following question: "At this institution, how do you evaluate each of the following facilities, resources or personnel you need to support your work". Items: "Classrooms", "Technology for teaching", "Laboratories", "Library facilities and services", and "Teaching support staff"

^bFor this index, the items considered were "Research equipment", "Research support staff" and "Research funding"

^cThis index was calculated, considering answers given by the respondents to the question "How influential are you, personally, in helping to shape key academic policies" and considering the items (a) "At the level of the department or similar unit", (b) "At the level of the faculty or similar unit" and (c) "At the institutional level". Answers were coded into four grades: 0 = "not at all" through 3 = "very influential". Differences in institutional level were weighted as follows: department (*1), faculty (*2) and institution (*3)

published – and some others hired as teachers – with their performance measured by their popularity among students – and finally, others hired as consultants – with their performance measured by the number of projects contracted.

In order to understand the impact of these dynamics over job satisfaction better, we identified the core academics inside these institutions, considering those with full-time contracts and in upper-middle positions inside the institution's career track. Table 4.10 presents the result for the factor analysis for this group.

As one can see in Table 4.10, among the core team of academics inside the elite private institutions, job satisfaction is linked to a relevant strategic dimension for the institution's competitive advantage in higher education market: the quality of internal leadership. For these academics, satisfaction is related to the way they evaluate the quality of the communication between the institution's management and the academic corps and the quality of institution's management and inversely related to academics' commitment to the institution.

Table 4.11 presents the results of the same analysis among the peripheral body of academics linked to these institutions.

Also, among the peripheral academic contingent, job satisfaction is related to the quality of leadership and good channels of communication between the academic team and the institution's management. But among these academics, this component is much more defined: inside the model, satisfaction is linked to the first component, which explains 22.9% of the entire variance, and is linked not only to the academic's evaluation of the institution's management leadership, the quality of the channels linking academics to the institution's direction, but also to their capacity of providing sound leadership to the academic team. For these academics, the institution's capacity for evaluating teaching performance and taking this dimension in consideration when making personnel decisions is a relevant issue in this dimension.

Comparing the results from the two tables presented above gives relevant glimpses to the environment inside elite private institutions. Academics from these institutions perceive the relevance and strategic role played by management for the institution's chances in winning in the competitive environment they are placed. This is the most relevant dimension related to job satisfaction. On the other hand, academics holding a more fragile link with these institutions are the ones more keen to this dimension. For them, it is also linked to the fairness in evaluation, especially towards their teaching skills, probably because it is perceived as the door that gives access to a more stable position among the core staff inside the institution.

4.5.4 Job Satisfaction Inside the Private Mass-Oriented Institutions

Among the strong features of the mass-oriented private institutions are the relative homogeneity of contracts and job conditions, coupled with a poor academic environment. These institutions are under strong pressure to charge the lowest possible tuition fees for the education provided. Even the largest universities working within

Table 4.10 Private elite institutions: factor analysis, rotated component matrix, for the core faculty

	Component			
	Strategic management	Quality of channels for internal communication	Quality of institutional leadership	Administrative responsibilities
Overall satisfaction index	-.045	-.019	.741	-.213
Overall influence (weighted by the institutional level)	.220	.567	.140	-.175
Undergraduate programme's coordinator	-.138	-.100	.010	.587
Good communication between management and academics	.329	.566	.564	.336
A top-down management style	.086	-.819	.249	.124
A strong performance orientation	.599	.118	.169	.449
A cumbersome administrative process	-.276	-.478	-.530	.153
Top-level administrators are providing competent leadership	.458	.425	.242	.360
I am kept informed about what is going on at this institution	.139	.560	.498	.332
Lack of faculty involvement is a real problem	-.095	.012	-.653	-.140
Performance-based allocation of resources to academic units	.724	.149	.025	.177
Evaluation-based allocation of resources to academic units	.749	.269	.004	.125
Funding of departments substantially based on numbers of students	.268	-.053	-.076	.768
Considering the teaching quality when making personnel decisions	.811	.041	-.060	-.065
Considering the practical relevance/applicability of the work of colleagues when making personnel decisions	.810	-.043	.162	-.160
Encouraging academics to adopt service activities/entrepreneurial activities outside the institution	.627	.075	.184	.041

Source: CAP – Brazil, Brazilian national file, 2008

Extraction method: principal component analysis

Rotation method: varimax with Kaiser normalisation

Rotation converged in seven iterations

Table 4.11 Private elite institutions: factor analysis, rotated component matrix, for the peripheral faculty

	Component			
	Leadership and communication inside inst.	Strategic management	Influence	Administrative responsibilities
Overall satisfaction index	.666	.137	-.334	.268
Overall influence (weighted by the institutional level)	.234	-.088	.670	.275
Undergraduate programme's coordinator	.089	-.020	.231	.851
Good communication between management and academics	.716	.299	.330	-.162
A top-down management style	-.352	.389	-.390	.470
A strong performance orientation	.200	.753	.142	.068
A cumbersome administrative process	-.567	-.156	-.294	.016
Top-level administrators are providing competent leadership	.680	.300	.432	.051
I am kept informed about what is going on at this institution	.741	.168	.233	.021
Lack of faculty involvement is a real problem	-.754	-.054	.006	.101
Performance-based allocation of resources to academic units	.061	.874	.010	-.085
Evaluation-based allocation of resources to academic units	.375	.766	.114	.113
Funding of departments substantially based on numbers of students	.029	.301	.786	.013
Considering the teaching quality when making personnel decisions	.468	.441	.445	-.058
Considering the practical relevance/applicability of the work of colleagues when making personnel decisions	.292	.524	.517	-.373
Encouraging academics to adopt service activities/entrepreneurial activities outside the institution	.352	.456	.383	-.366

Source: CAP – Brazil, Brazilian national file, 2008

Extraction method: principal component analysis

Rotation method: varimax with Kaiser normalisation

Rotation converged in eight iterations

this environment have to follow the same iron rule: there is rapid expansion when the country's economy grows and contraction in harsh times. In these circumstances, the academic market functions as a cushion, softening the movement between the expansion and retraction cycles. One could say that these conditions do not provide an environment conducive to proper differentiation of even a proper academic life. In a sense, for these institutions, academics are commodities, to be hired in times of growth and dismissed in harsher times.

In spite of all these negative signals, the academic market inside the mass-oriented institutions experienced changes in the last 10 years. In response to the new pressures put in effect by instances of federal regulatory, these institutions opened their doors to the young academics coming from the ever-expanding graduate education system. This new professional profile entailed a differentiation and brought new tensions into these institutions. While they have felt compelled to hire a staff with better academic credentials, a PhD holder is an expensive luxury that they can hardly afford, and they are unsure how to put the competence and skills into good use. These are the reasons for differentiating between academics with a doctorate and those with lower degrees in our analysis of the sources of job satisfaction within the mass-oriented private institutions, as shown in Table 4.12.

Among academics holding a doctorate working in the market created by the mass-oriented private institutions, job satisfaction is related to their range of work experience, particularly those held outside the academic market. On the other hand, it is **negatively** related to the number of institutions the academic is currently employed at and with the extent of the pressure exerted on him/her by the institution. The most conspicuous measure in this dimension is the attempts for saving on expenses by forcing academics to teach larger classes. In Table 4.13, below, one can see that the same issue is also negatively related to job satisfaction among academics with lower degrees. Nevertheless, among this last group, there is no item positively related to job satisfaction. It seems that for them, satisfaction is just a by-product of a negative state: the absence of stronger pressures for teaching larger classes.

4.6 Conclusions

This chapter was devoted to an analysis of the main issues related to job satisfaction inside the academic world in Brazil. As shown above, academics tend to be satisfied with their jobs regardless of the striking differences in contract and work conditions in their institutions. However, we found that satisfaction is related to specific strategic dimensions that vary from one type of institution to another and define the institutions' place within the country's higher education system.

Among academics from the more research-oriented public universities, job satisfaction is centrally related to the strength of collegial instruments for governance. This is the soft point inside these institutions, and changes in this dimension may produce related effects in the way their academics evaluate their commitment with the academic profession. Inside the more locally oriented public universities,

Table 4.12 Private mass-oriented institutions: factor analysis, rotated component matrix, for the PhD holders

	Component			
	Quality of strategic management	Condition of incorporation in the job market	Participatory demands	Access to research
Overall satisfaction index	.340	-.584	.020	.316
Overall influence (weighted by the institutional level)	.642	.018	-.242	-.133
Institution's entrepreneurship orientation ^a	.840	.154	-.125	.030
Quality of institutional management ^b	.842	-.120	-.241	.096
Have work experience outside the academic market	.029	-.069	.135	-.749
Access to research funds	.031	.040	.091	.664
Number of academic institutions currently working	.170	.681	-.130	.192
Funding of departments substantially based on numbers of students	.135	.704	.117	.085
Considering the teaching quality when making personnel decisions	.822	.158	.124	.072
Lack of faculty involvement is a real problem	-.079	.201	.849	-.013
Students should have a stronger voice in determining policy that affects them	-.251	-.262	.706	-.024

Source: CAP – Brazil, Brazilian national file, 2008

^aThe institution's entrepreneurship orientation index was created by computing the average answer given by the respondent to five items that evaluate the extension of new management practices inside the institution: (a) "Performance-based allocation of resources to academic units", (b) "Considering practical relevance/applicability of the work of colleagues when making personnel decisions", (c) "Recruiting academics who have work experience outside academia", (d) "Encouraging academics to adopt service activities/entrepreneurial activities outside the institution" and (e) "Encouraging individuals, businesses, foundations, etc. to contribute more to higher education"

^bQuality of institutional management is based on the average responses to the following items: (a) "My institution has... a strong emphasis on the institution's mission", (b) "Good communication between management and academics", (c) "Supportive attitude of administrative staff towards teaching activities", (d) "Supportive attitude of administrative staff towards research activities", (e) "Professional development for administrative/management duties for individual faculty" and the academic views on the following issue: (a) "Top-level administrators are providing competent leadership"

Extraction method: principal component analysis

Rotation method: varimax with Kaiser normalisation

Rotation converged in five iterations

Table 4.13 Private mass-oriented institutions: factor analysis, rotated component matrix, for academics with master’s or lower degrees

	Component		
	Quality of management	Conditions of work	Participatory demands
Overall satisfaction index	.280	.717	-.008
Overall influence (weighted by the institutional level)	.668	-.016	-.096
Institution’s entrepreneurship orientation	.850	.015	.083
Quality of institutional management	.878	.093	-.031
Have work experience outside the academic market	.037	.236	.631
Number of academic institutions currently working	-.279	.065	-.600
Funding of departments substantially based on numbers of students	.235	-.784	.013
Considering the teaching quality when making personnel decisions	.820	-.001	.059
Lack of faculty involvement is a real problem	-.456	-.101	.489
Students should have a stronger voice in determining policy that affects them	-.229	-.198	.423

Source: CAP – Brazil, Brazilian national file, 2008
 Extraction method: principal component analysis
 Rotation method: varimax with Kaiser normalisation
 Rotation converged in five iterations

the shaky basis for a scholarly performance and the strength of egalitarian and participative ethos bring the issue of job satisfaction near the quest for assuring and reinforcing participation and influence. This issue is more relevant for academics with lower academic credentials than to those holding a PhD. For the latter, the feeling of belonging to a broad (and mostly external) community of peers mitigates the impact of internal issues in their goodwill towards the profession they embraced.

Within the private sector, differences are also relevant when one considers the main divide inside this sector. At the elite-oriented institutions, the quality of management and the strategic communication channels between the administrative corps and the academic body are central to understanding the degree of job satisfaction among academics. This is a vital issue for the institution’s health, and it is also perceived as central to an academic’s wellbeing. Finally, if one considers the mass-oriented institutions, the main issue related to job satisfaction is the relative weak pressures put upon them to teach more and to larger classes.

All in all, since Brazilian academics from all kinds of institution expressed a great degree of satisfaction with their job conditions and regarding the academic

profession in general, it seems that academic institutions in Brazil continue to be successful in attending to their academic staff's core expectations. Whether this is also true for their other stakeholders is another question, in need of a more in-depth analysis.

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Chapter 5

Canadian University Academics’ Perceptions of Job Satisfaction: “...The Future Is Not What It Used to Be”

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This chapter is an analysis of job satisfaction reported by full-time academic staff in Canadian universities as part of the Changing Academic Profession (CAP) project. We begin this chapter by providing a brief overview of the context of academic work in Canadian universities, followed by a description of the methodology for the survey of university academics that provided the foundation for this analysis. We then report and discuss study findings related to overall job satisfaction, provide an analysis of academic staff satisfaction with a range of workplace and institutional factors, and explore differences in reported satisfaction by demographic characteristics of academic staff. We summarise our findings and offer a number of conclusions in the final section of this chapter.

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5.1 Canadian Universities and the Context of Academic Work

Canada was created in 1867 as a confederation of colonies under a constitutional arrangement that created two levels of government. While the federal government plays a major role in funding university research, supporting a national student loans programme, and operating a range of programmes and initiatives that have important implications for Canadian higher education, it is the ten provinces and three territories that have legislative authority over all levels of education. Universities are regulated by provincial governments,¹ and the provinces have created quite different policy and funding arrangements (Jones 1997).

Almost all Canadian universities have been created as private, not-for-profit corporations operating under unique legislative charters. While there is a very small private sector, the vast majority of universities are considered public in that they receive operating grants from the respective provincial governments and are considered part of a broader public sector of institutions. While they receive public funding, universities are legally autonomous, self-governing institutions with the right to independently own property, enter into contracts, and employ staff. Canadian university professors are employed by the university, not by government.

The terms and conditions of employment of a professor vary by university. As Dobbie and Robinson (2008) have noted, higher education may be the mostly heavily unionised sector in Canada, and almost all full-time academic staff are members of institution-based unions recognised under provincial labour law. Most of the terms and conditions of employment are negotiated between the central administration of the university, acting on behalf of the governing board, and the academic staff union, representing its membership. Similar arrangements can be found even in universities where academic staff are not unionised, in that the university has entered into a voluntary agreement with an academic staff association that provides a framework for salary negotiations and details relevant to academic policies, such as tenure and appointment policies. In addition to an academic staff union or association representing the interests of full-time academics (and frequently librarians), there may also be separate unions representing sessional or part-time university teachers, specialised research personnel, teaching assistants, and student research assistants. Therefore, research and teaching activities may be undertaken by individuals with quite different salaries and conditions of employment (Jones and Weinrib 2010), a point we will return to later in this chapter.

While there is no national stratification or official hierarchy of university types, *Maclean's Magazine*, in its national rankings of universities, divides institutions into three categories, and this unofficial categorisation system is frequently used in Canadian higher education research. Medical/doctoral institutions are universities

¹ There are no universities in the three northern territories (Yukon, Nunavut, and Northwest Territories) though Yukon College has recently been given the authority to grant degrees and there are ongoing discussions about creating a university for the Canadian north.

that offer a comprehensive range of undergraduate programmes, professional programmes, including medicine, and graduate programmes, including many doctoral programmes. Comprehensive universities offer a range of undergraduate, professional, and graduate programmes but do not have a medical school. Primarily undergraduate universities offer a range of undergraduate studies, though they may also have a modest number of professional and graduate programmes. This institutional classification was used in determining the sample of universities included in the CAP study.

The governance structure of each university is described in its act of incorporation and, while there are variations in these structures and arrangements by institution, there are a number of quite common features (Jones 2002). Almost all of Canada's publicly supported universities have a bicameral governance structure, in that the act of incorporation delegates responsibility for administrative and financial issues to a governing board and responsibility for key academic issues to an academic senate. A few universities have a unicameral structure where a single board has been assigned responsibility for both administrative and academic issues. All Canadian university governing boards include at least a small number of academic staff members, and participation is often limited to full-time, tenure-track academics. All academic senates have significant representation from academic staff, often elected from among the full-time academics working within faculty constituencies, as well as including strong representation from academic administrators.

5.2 The Canadian CAP Survey

A detailed description of the research design and methods for the international and Canadian CAP surveys can be found in earlier publications (Locke and Teichler 2007; Metcalfe 2008), and general descriptions of the project can be found in various other chapters. In this section, we briefly review the design of the Canadian study.

The study was designed to obtain responses from a representative sample of academic staff at Canadian universities. The focus was solely on universities (public and private), and other institutional types were excluded (institutes, university-colleges, colleges, theological institutions, and seminaries). A two-stage cluster sample was created (see Table 5.1), at the level of institutions and at the level of individuals. At the institutional level, the target population of universities was sorted by type of institution (medical/doctoral, comprehensive, and primarily undergraduate). A random sample of institutions was created from this list. The institutional sample consisted of 18 institutions: four medical/doctoral, six comprehensive, and eight primarily undergraduate. At least one institution from each of Canada's ten provinces was represented in the sample.

For each of the 18 universities in the sample, full-time academic staff with the titles of professor, associate professor, and assistant professor were included in the individual-level cluster samples. Other categories of academic staff such as instructor, lecturer, research associate, and clinical academics, as well as academic administrators

Table 5.1 Canadian CAP survey sampling framework

University type	Gross sample ^a				Net sample				Returned sample			
	Institutions		Academics		Institutions		Academics		Institutions		Academics	
	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)
Medical/doctoral	15	31.9	18,840	59.7	4	22.2	2,245	33.5	4	22.2	442	38.4
Comprehensive	11	23.4	7,806	24.7	6	33.3	3,109	46.5	6	33.3	501	43.5
Undergraduate	21	44.7	4,908	15.6	8	44.4	1,339	20.0	8	44.4	209	18.1
	47	100.0	31,554	100.0	18	100.0	6,693	100.0	18	100.0	1,152	100.0

^aSource: CAUT Almanac, 2008

such as deans and vice-presidents, were not included. Only full-time university academics were surveyed.

At the end of October 2007, all potential participants (6,693) were sent a bilingual email invitation message with an embedded link to a web-based survey. Participant anonymity was assured through the use of a personal identification number (PIN) and the use of a third-party research service at the University of British Columbia that administered the survey and housed the secured data on-site. The PIN allowed participants to save their answers and log back into the survey at a later time to finish the questionnaire. Two reminder messages were sent to nonresponders in November and December. The survey was closed in mid-December 2007. Another phase of the survey was initiated in April 2008 to capture more responses, and the survey was finally closed in May 2008 having obtained 1,152 valid returns for a response rate of 17.2%.

5.3 Findings

The CAP survey included a number of questions that were designed to obtain data on the degree to which academics were satisfied with their work and their working conditions. Our review of the findings of the Canadian responses to these questions begins by focusing on questions related to overall satisfaction with the academic profession, followed by the analysis of data related to academics' satisfaction with specific elements of academic work and working conditions, such as physical infrastructure; teaching-related support; research-related support; administrative and managerial relations, support, and influence; and the current state of the academic profession. This is followed by an analysis of respondent data by demographic characteristics, including gender, seniority, academic discipline, category of university, and level of remuneration.

5.3.1 Overall Satisfaction with the Academic Profession

Full-time academics working at Canadian universities reported high levels of job satisfaction. In responding to a direct question on job satisfaction, approximately 74% of academic staff indicated very high or high levels of satisfaction, and less than 10% reported low or very low levels of satisfaction with their current job. The vast majority of respondents also reported that they were pleased with their career choice. Approximately 77% of respondents disagreed or strongly disagreed with the statement 'if I had to do it over again, I would not become an academic', while just over 11% of respondents agreed with the statement and roughly the same number provided a neutral response.

High levels of satisfaction with their current position were tempered by less positive responses to questions focusing on change over time, job strain, and perceptions of the future. Almost 40% of respondents indicated that the overall working

Table 5.2 Evaluation of institutional infrastructure and support^a

	Excellent			Poor	
Classrooms	16.6	34.5	29.0	13.4	6.6
Laboratories or research spaces	8.3	23.0	32.7	23.2	12.8
Computer facilities	14.7	40.4	29.5	12.2	3.2
Library facilities and services	24.3	39.1	21.7	8.9	6.1
Telecommunications (Internet, networks, and telephones)	29.5	41.9	19.7	7.3	1.6
Your office space	22.6	39.8	22.0	10.5	5.1
Secretarial support	16.9	27.4	24.1	16.1	15.5
Research equipment and instruments	8.0	25.9	36.6	19.5	10.0
Research support staff	6.4	21.0	25.8	23.9	22.9
Research funding	3.5	17.3	33.1	27.1	19.0
Technology for teaching	21.1	40.1	23.6	11.0	4.1
Teaching support staff	8.3	24.2	25.9	23.4	18.2

Source: CAP data file

^aRounding errors apply

conditions in higher education had deteriorated over the course of their careers, and only 23% reported that working conditions had improved (with 38% providing a neutral response). When asked whether ‘this is a poor time for any young person to begin an academic career’, almost 45% of respondents disagreed, while 35% provided a positive response. Approximately 42% of academics indicated that their job was a source of considerable personal strain, while 31% disagreed with the statement.

In terms of overall job satisfaction, academics are satisfied with their jobs, but some believe that working conditions are not what they used to be and there are concerns about the future.

5.3.2 *Satisfaction with Institutional Infrastructure and Support*

As a part of the CAP survey, respondents were asked to evaluate the institutional facilities, resources, and personnel they need to support their work. These 11 questions probed academics’ perceptions regarding a range of physical infrastructure and basic support provisions, research and teaching resources, and personnel support provided through their home institutions. Academics were asked to evaluate each item on a five-point scale ranging from ‘excellent’ to ‘poor’ (Table 5.2).

Most respondents provided a positive evaluation of the physical infrastructure and support elements associated with their work, including classrooms (51% of academics), library facilities (63%), office space (62%), and telecommunications (71%). Less than 20% of academics provided a negative assessment of any of these support facilities. The exception was in the assessment of laboratories or research

spaces, where 36% of respondents provided a negative response and 31% provided a positive evaluation.

Concerns with support for research activities were not limited to laboratories. Respondents evaluated the quality of research equipment and instruments as average and assessed the quality of research support staff and research funding as below average. Less than 20% of academics indicated that research funding was either excellent or good. Taken together, the findings suggest that most academics assess the overall support facilities for research at their institutions as average or adequate, but there are concerns with the quality of laboratories, the availability of research support staff, and the level of research funding.

Several questions focused on support for teaching-related activities. As already noted, most academics provided a positive assessment of classroom facilities. Respondents provided a quite positive assessment of the technological support for teaching available at their institution, but were far less satisfied with the level of staff available to support their teaching functions.

Taken together, the responses suggest a quite positive assessment of the level of technological support available to academics, a positive evaluation of the physical infrastructure supporting academic work, with a more muted assessment of research laboratories, and concerns over the level of staff available to support the teaching and research functions.

5.3.3 Management, Leadership, and Institutional Culture

While academics' opinions on basic institutional support and services highlight some general trends in academics' satisfaction, issues related to management, leadership, and institutional culture can also have a significant impact on academics' work. In order to understand these dynamics and processes better, the CAP survey asked academics whether they agreed or disagreed with a variety of statements related to leadership, decision-making processes, administrative support, and institutional culture. The responses to these questions are summarised in Table 5.3.

The responses provide an interesting and conflicting snapshot of academics' perceptions. The majority of respondents agreed with only three of the statements included in this section of the survey: that there is a top-down leadership style at their institution (53% of respondents), that the university has a cumbersome administrative process (64%), and that the administration supports academic freedom (61%).

There were also a number of questions where significantly more academics provided a positive rather than negative response. Approximately 38% of respondents agreed that there was collegiality in the decision-making process at their institution, while 28% disagreed with this statement. Administrative staff were perceived to have a supportive attitude towards teaching activities by 48% of respondents (with 26% disagreeing) and a supportive attitude towards research activities by 46% of respondents (with 30% disagreeing). The lack of academic involvement was viewed

Table 5.3 Perceptions of leadership and management

At my institution...?	Strongly agree or agree	Neither agree nor disagree	Strongly disagree or disagree
Top-level administrators are providing competent leadership	38.2	23.7	38.0
I am kept informed about what is going on at these institutions	45.5	25.4	29.0
A lack of academics involvement is a real problem	38.9	28.3	32.8
(There is) collegiality in decision-making processes	38.2	33.6	28.2
(There is) a top-down management style	53.1	25.5	21.4
(There is) good communication between management and academics	29.0	32.6	38.3
A cumbersome administrative process	63.9	24.7	11.4
A supportive attitude of administrative staff towards teaching activities	48.3	26.2	25.5
A supportive attitude of administrative staff towards research activities	46.2	24.3	29.5
Professional development for administrative/management duties for individual academics	30.9	32.9	36.2
The administration supports academic freedom	60.9	24.6	14.5

as a problem by 39% of respondents (with 33% disagreeing), and 38% did not believe that there was good communication between management and academics (with 29% believing there was good communication).

In summary, while most respondents characterised the institutional leadership style as top-down and administrative processes as cumbersome, they also perceived considerable administrative support for academic freedom at their institution. On all other issues, there were clear differences of opinion among academic respondents, with almost one-quarter providing a neutral response to all of the questions in this group. There is some level of collegiality in decision-making and administrative support for teaching and research, but a perceived need for greater academics involvement and improved communications. Given that Canadian universities are relatively autonomous institutions with their own governance and administrative structures, these differences in perception may to some extent reflect differences in the leadership and management practices by institution. Differences in the size of institutions may also play a role here. In a previous analysis, Metcalfe et al. (2011) found that professors at smaller universities tended to believe that they had more influence on decisions than those from larger universities. But as we will see later, the type of institution does not significantly affect reported job satisfaction.

Table 5.4 Job satisfaction by gender

How would you rate your overall satisfaction with your current job?	Very high	High	Average	Low	Very low
Male	31.0	45.5	14.6	5.0	3.8
Female	18.2	50.6	21.2	7.0	3.0

5.4 Analysis of Demographic Variables

In order to gain a more comprehensive overview and understanding of full-time academics' satisfaction levels in Canadian universities, we cross-tabulated the responses to key questions with a number of demographic variables, including gender, discipline, institutional type, academic rank, and remuneration. Since Canada has two official languages (English and French), we also analysed language as a variable, but we found that there was no statistically significant difference in reported levels of job satisfaction for academics completing the English version of the questionnaire compared with academics completing the French version of the questionnaire. It is important to note that we were unable to explore differences in response by cultural background and employment status (full time versus part time) because the number of individuals self-reporting as 'non-white' was too small to allow for any meaningful analysis, and the sampling design focused primarily on full-time academics.

5.4.1 Gender

Of the 1,152 CAP survey respondents, 982 provided data on gender, and the gender balance of respondents was close to the national average. Generally speaking, there were no substantial differences in response by gender of respondent to many of the questions on the survey. Men and women provided similar responses to questions related to physical infrastructure, administrative leadership and support, and institutional culture.

There were, however, differences by gender in the level of overall job satisfaction and several related questions. Responses by gender to the question of overall job satisfaction are provided in Table 5.4. Male respondents reported higher levels of satisfaction than female respondents. While there was no significant difference in responses by gender in terms of academics who are not satisfied (8.8% for men, 10% for women), a much larger share of males reported very high satisfaction (31% of men compared with 18% of women), and women were more likely to indicate high levels (51%) or average levels of satisfaction (21%).

There were similar differences in responses by gender to several other related questions. While the majority of both men and women disagreed with the statement 'if I had to do it over again, I would not become an academic', a larger percentage

of male academics strongly disagreed (61% compared to 53% for female academics). A slightly larger perception of female respondents (21%) strongly agreed that 'this is a poor time for any young person to begin an academic career in my field' than male respondents (14%), and a slightly larger perception of male respondents (25%) strongly disagreed with that statement compared with female respondents (18%). Finally, a larger percentage of female respondents strongly agreed or agreed (49%) that their job was a source of considerable personal strain than male respondents (38%).

While both men and women are satisfied with their jobs as academics, there are differences in the level of satisfaction by gender, a finding that intersects with a range of prior research on the challenges faced by female academics in Canadian (Armenti 2004; Drakich and Stewart 2007; Ornstein et al. 2007) and American (Astin 1991; Park 2000; August and Waltman 2004) university environments. On average, female academics are slightly less satisfied than male academics, are more concerned about the future of the profession, and are more likely to find their work situation stressful.

5.4.2 Remuneration

Previous comparative studies of academics' salaries have found that Canadian salaries are quite high (Rumbley et al. 2008; Jones and Weinrib 2010), and this may be a factor in explaining the relatively high levels of job satisfaction reported by Canadian academics in this study. However, the relationship between salary levels and job satisfaction has not been explicitly studied in the Canadian context. In this study's analysis, the relationship between levels of academics' remuneration and job satisfaction was investigated by cross-tabulating self-reported salary levels with responses to job satisfaction questions.

It was interesting to note that there were major differences in responses between academics who received high levels of remuneration (\$119,000 or higher) and those in lower salary categories (\$65,000 or lower). Academic members with high salaries reported higher levels of job satisfaction than academics in the lowest salary category. Similar differences were found in responses to questions related to career path, with high-salaried professors agreeing in larger numbers that they would choose the same career if they could do it all over again, and personal stress, with higher percentages of lower-paid academics reporting stress. Generally speaking, academics with higher levels of remuneration also provided a more positive assessment of a range of infrastructure and management issues, such as their assessment of laboratories, research equipment, research funding, research support staff, and the level of communication with management, than academics in the lowest salary categories.

There was no statistically significant relationship between the level of remuneration of respondents and responses to questions related to institutional decision-making process, administrative support for teaching and research, and collegiality. However, it is clear that academics with the highest salaries reported higher levels of satisfaction

and displayed a more positive disposition towards academic work than academic members in the lowest salary categories. Given that there are differences in salary levels by both institution and institutional type and that there continue to be salary inequities by gender (Jones and Weinrib 2010), differences in response by level of remuneration may relate to differences in satisfaction by gender and/or differences in experience by institution.

5.4.3 Research Funding

In light of the changing and volatile nature of research funding in Canada's postsecondary landscape, we were interested to see if there was any notable relationship between the respondents' assessment of the adequacy of research funding and their overall job satisfaction. In order to address this question, we cross-tabulated responses on job satisfaction with answers to the question 'at your institution, how would you evaluate the research funding you need to support your work?'

While academics with very high or high levels of job satisfaction provided a range of assessments of research funding, individuals with low or very low levels of job satisfaction were far more likely to provide a negative assessment of the availability of research funding. For the 10% of academics who reported very low or low levels of job satisfaction, approximately 70% assessed research funding as being below average or poor. Increased research funding may not lead to increased job satisfaction, but poor research funding may be a contributing factor to poor job satisfaction.

There was a similar relationship between academics' responses to the statement 'this is a poor time to begin an academic career in their field' and academics' assessments of research funding. Most notably, of the respondents who strongly agreed that it is a poor time to begin an academic career, almost one-third indicated they had poor research support, while only 13% reported they had 'excellent' or 'very good' research funding. Once again, poor research funding may be a contributing factor to a negative assessment of the current state of the field.

5.4.4 Rank

In order to understand the relationship between academic rank (appointments as assistant, associate, or full professor) and job satisfaction, we cross-tabulated rank with responses to other relevant question on the CAP survey. In response to the question on overall job satisfaction, 33% of full professors reported a very high level of satisfaction, while 24% of assistant professors and 20% of associate professors reported a very high level of satisfaction. Approximately 70% of full professors strongly disagreed with the statement 'if I could do it over again, I would not become an academic', compared with 54% of associate professors and 49% of

Table 5.5 Perceptions of influence by unit level and academic rank^a

	Very influential	Somewhat influential	A little influential	Not at all influential
<i>Department or similar unit</i>				
Full professor	31.0	43.0	18.0	6.0
Associate professor	21.1	39.6	27.4	10.4
Assistant professor	10.8	42.0	33.2	9.8
<i>Academics, school, or similar unit</i>				
Full professor	11.5	35.4	30.6	18.5
Associate professor	6.3	23.2	39.0	28.3
Assistant professor	1.8	12.2	37.8	41.6
<i>Institutional level</i>				
Full professor	3.7	21.4	35.1	37.4
Associate professor	2.1	8.4	29.6	56.6
Assistant professor	0.4	2.5	16.8	69.1

^aValues for ‘not applicable’ excluded

assistant professors. Regarding the statement ‘my job is a source of considerable personal strain’, 20% of assistant professors and 21% of associate professors ‘strongly agreed’, while this number fell to 14% for full professors. Approximately 14% of full professors, 11% of associate professors, and 7% of assistant professors strongly disagreed with the statement. Generally speaking, a larger share of full professors reported higher levels of job satisfaction and a more positive view of the academic profession than individuals appointed to the lower ranks.

These findings are interesting, but not unexpected. The study provides support for previous findings in the literature that lower ranking academics operate under more stressful working conditions, primarily due to being embedded in ongoing professional legitimisation processes (Sorcinelli 1992; Castle and Schutz 2002). For those who have already attained the highest rank in Canadian universities, those at the full professor rank, it is not unreasonable to expect that the absence of promotional pressures and the attainment of the highest position in departmental hierarchies would lower overall stress levels and usher in a more favourable opinion of personal and professional circumstances. For all intents and purposes, they have succeeded in achieving the highest academic position within their universities and are more likely than those in the lower ranks to believe that their journey was both professionally and personally worthwhile.

In terms of other notable observations, cross-examining rank with respondent perceptions of individual influence at the department, school/faculty, and institutional level revealed some of the survey’s clearest relationships. While most academic members believe that they are very or somewhat influential at the department level, regardless of rank, this perceived influence decreases at the school/faculty level and then decreases again in reference to decisions at the institutional level. It was interesting to note the direct relationship between rank and perceived influence at all decision-making levels (see Table 5.5). Full professors reported higher levels of

influence at each level compared with both associate and assistant professors. The fact that the majority of assistant professors, as entry-level tenure-track academic staff members, reported that they have at least some influence over decisions at the department level suggests that while there are clear hierarchies associated with perceived influence by rank, the decision-making arrangements at the local level still provide junior members with a voice.

Given the hierarchical nature of universities, the strong tradition of professional autonomy within the professoriate in relation to institutional management and the historical reliance on senior academic members to help direct institutional mission, it was surprising to note the low level of perceived influence reported by full professors in terms of institutional decision-making. As Metcalfe et al. (2011) have noted in their analysis of the CAP data in relation to the governance and management of Canadian universities: 'Faculty governance is eroding (in Canadian universities). Full professors do not perceive themselves to be as influential as one might predict given the hierarchical structure'. Given the relatively high level of job satisfaction reported by academics, this finding may also suggest that it is academics' influence at the local department level that is most meaningful in terms of job satisfaction, rather than influence at higher levels of the institution.

5.4.5 Discipline

There is a considerable literature on discipline differences in higher education, and a number of studies of Canadian higher education have noted important differences in the availability of research funding, support for infrastructure, and remuneration patterns by discipline (Grant and Drakich 2010; CAUT 2010a). For example, in the 2006–2007 academic year, only 13% of Social Science and Humanities Research Council granting funds were awarded to full-time academics in the humanities, education, and social science disciplines, despite the fact that these disciplines account for roughly 49% of all full-time Canadian academics (CAUT 2010a, 44). Similar trends are found in relation to the Canadian Foundation for Innovation (CAUT 2010a, 45) and the Canada Research Chair granting programmes (Grant and Drakich 2010). Generally speaking, federal government support for academic research in the social sciences and humanities is 3.5 times less than for research in the natural sciences, engineering, and health fields (Statistics Canada 2010). Given these contextual differences and the finding noted above that there may be a relationship between low levels of funding and low job satisfaction, one might have anticipated that there would be differences in job satisfaction by discipline. The CAP survey asked academics to categorise their current discipline area, and this demographic variable was cross-tabulated with questions related to job satisfaction. It was interesting to note that there were no significant differences in response by discipline to the overall job satisfaction question, the question that asked academic members whether they would make the same careers decisions again, or the question of whether their job involved considerable personal strain.

There were modest differences in response by discipline to the question ‘this is a poor time for any young person to begin an academic career in my field’. The response rate across all disciplines between those that strongly agreed or agreed with the above statement or strongly disagreed or disagreed was 35% for the former and 45% for the latter. Approximately 41% of respondents from the humanities and arts strongly agreed or agreed with the statement, while 36% disagreed or strongly disagreed. The responses from academics in some of the more hard science areas were quite different: less than 30% of academics in the physical sciences, mathematics, and computer sciences areas agreed or strongly agreed with the statement, while 46% disagreed or strongly disagreed; less than 20% of academics in the engineering, manufacturing and construction, and architecture fields agreed with the statement, while over 46% disagreed. In other words, while there were no significant differences in the level of job satisfaction by discipline area, academics in the humanities seemed to be more concerned with the future of their field than academics in the hard sciences.

5.4.6 Institutional Type

As we noted in the introduction, while there is no formal hierarchy of Canadian universities, there are three institutional categories that are frequently used in Canadian higher education research, and these categories were used in the selection of institutions in order to obtain a representative sample of academics. It was interesting to note that there were no significant differences in the responses from academics by institutional category on the questions that directly addressed academics’ satisfaction. Academics from all three types of institutions (medical/doctoral, comprehensive, and primarily undergraduate) reported similar levels of job satisfaction, similar responses to the question of whether they would do it all again, similar levels of personal strain, and similar responses related to whether this was a bad time for junior academics to begin an academic career.

However, there were differences in response to some of the questions focusing on the assessment of infrastructure supporting teaching and research. Academics from primarily undergraduate universities provided significantly more positive evaluations of classroom facilities (62% reporting that classrooms were excellent or very good) and technology for teaching (73% responding with excellent or very good). On the other hand, respondents from medical/doctoral universities provided a more positive assessment of library facilities and services (74% reporting excellent or positive compared with 43% for academics from primarily undergraduate institutions), research support staff, and research funding. In other words, academics from primarily undergraduate universities provided a more positive assessment on the infrastructure supporting the teaching mission than academics from the other institutional types, while academics from medical/doctoral universities provided a more positive assessment of institutional facilities designed to support the research function.

5.5 Discussion

There has been surprisingly little research on the academic profession in Canada, and the Changing Academic Profession project makes an important contribution to our understanding of academics' perceptions of job satisfaction and working conditions. A number of positive conclusions can be drawn from our analysis of the CAP data. All things considered, Canadian full-time academics are quite satisfied with the professional dimensions of their current careers and their decision to pursue such careers. More specifically, full-time academics report high levels of satisfaction with the support they receive from their home institutions in terms of management relations, academic freedom, and physical infrastructure for teaching and research. There are no significant differences in these academics' perceptions by discipline, rank, or institutional type.

Given the changing higher education context in Canada, perhaps the most important question raised by this study is why academics reported such high levels of job satisfaction. Increases in student enrolment have far outpaced the growth in full-time academics appointments, leading to increasing student-academics ratios (CAUT 2010a). The level of government funding per student for universities has decreased (Fisher et al. 2005; Shanahan and Jones 2007), and there are increasing expectations for academic staff research productivity (Polster 2007). These and other trends would provide a rationale for moderate or declining academics' satisfaction, and yet the findings of this study suggest that while academics certainly have concerns about the future of the academic profession in Canada, they continue to report high levels of satisfaction with their work and career decisions. Why are most Canadian academics satisfied?

There are three closely related explanations for this finding, we would suggest, that are rooted in the Canadian university context. The first is the powerful role of unionisation in the Canadian higher education sector. Academic staff unions play a key role in negotiating the conditions of employment of university professors, and they have generally been quite successful at securing reasonable levels of remuneration and benefits (Jones and Weinrib 2010). Many key academic policies are negotiated through collective bargaining, including, at many universities, tenure, promotion, and appointment procedures, and these policies prescribe academic participation in peer review and limit administrative discretion. The strength of academic unionisation in the Canadian higher education environment may have protected academic staff from more dramatic changes in the working environment associated with continuing expansion and shifts in government funding.

A second and closely related reason is that, faced with strong unions representing academics, universities have essentially protected the working conditions of full-time academics by increasing the level of teaching assigned to non-full-time, non-tenure stream academics. There has clearly been an increase in the use of part-time, contingent instructors at many universities, often organised in bargaining units that are distinct from the unions representing full-time academics. As Dobbie and Robinson (2008) have hypothesised, it is this fragmentation of academic work and

the shift towards contingent academics that may be creating the space to protect a highly privileged, tenure-stream professoriate.

Finally, there is evidence that Canadian universities continue to be sites for free inquiry and collegial processes. Respondents note that academic freedom is highly respected by institutional leaders, and they believe that they are able to have an important voice in local, departmental issues. These findings suggest that whatever the broader transformations and changes taking place within Canadian universities, changes that make some respondents nervous about the future of their profession, most full-time academic respondents report that they are working within a positive, local environment at the unit level.

While the overall picture emerging from the study is one of full-time academics who are satisfied with and enjoying academic work, the study also illuminates areas of concern. Despite generally positive reviews of institutional leaders and the support they offer for academic work and academic freedom, there is considerable dissatisfaction with the administrative and managerial processes and structures required to carry out academic work. Negative perceptions of top-down managerial processes and low levels of academic involvement and influence over institution-level decision-making processes, particularly within the research-intensive institutions designated as medical-doctoral, are clearly an area of concern for full-time academic staff members. These findings support tentative conclusions in the broader literature suggesting that governance and managerial processes within Canadian universities are increasingly aimed at strengthening managerial authority and circumventing the historically collegial nature of university decision-making (Metcalf et al. 2011; Boyko and Jones 2010). The trend towards institutional corporatisation has been interpreted as a direct challenge to the role of academic senates within the bicameral governance structures of most Canadian universities (Jones et al. 2004). While academics may be concerned with shifts in institution-level authority and decision-making practices, they continue to perceive that academic professionals have considerable influence over key academic decisions, such as choosing new academics, promotion, and tenure processes, the evaluation of research, and approving of new academic programmes within Canadian universities (Metcalf et al. 2011).

There are differences in responses by demographic group that are important to note. The first and perhaps the most significant relates to the issue of gender. As detailed above, female respondents are less likely to report high levels of overall satisfaction with their current jobs, and they consider their jobs to be a greater source of personal and professional strain than their male counterparts. The fact that there are modest differences in satisfaction levels by gender is not surprising, as there is a body of literature dealing with historical and systemic inequities in Canadian higher education, including differences in remuneration by gender and differences in career patterns and promotion rates. While some elements of the gender gap may be closing, Acker and Armenti note 'the underlying structures and ideologies that work to the disadvantage of women in academic continue to exert a strong, if increasingly unheralded, impact' (Acker and Armenti 2004, 4). If it is acknowledged that the modest differences in levels of satisfaction by gender are partially explained by

the way that broader societal norms play out within higher education institutions, remuneration patterns and promotional opportunities must be considered core components of the equation.

In support of this conclusion, the Canadian Association of University Teachers, in its 2009–2010 Almanac (CAUT 2010a), present data that female full professors earn 95%, associate professors earn 97%, and assistant professors earn 96% of their male counterparts in the same ranks. However, a more in-depth examination of this data determines that across all three ranks, the cumulative difference is approximately 89% (Jones and Weinrib 2010). The implication of this lower number is that the three ranks are characterised by a considerable imbalance of gender at the top and bottom ranks, creating a more lop-sided landscape than portrayed by the three ranks in isolation. This conclusion is supported by the CAUT data, where only 20% of full-time full professors are female, compared to 35% at the associate level and 43% at the assistant level (CAUT 2010b, 5). It is also supported by the broader literature on the gender pay gap (Brown et al. 2007; Ornstein and Penni 1996).

Closely tied to remuneration and rank are the issues of tenure, promotion, job security, and professional opportunities. Numerous studies have been conducted over the last 20 years that highlight the historical imbalance in employment and promotion opportunities within Canadian universities based on gender and note that the percentage of female academics participating in the academic profession decreases at the highest ranks (Acker 1994, 2003; Acker and Armenti 2004; Drakich and Stewart 1998; CAUT 2010b). Despite the increase in collective bargaining mechanisms and gender equity legislation, the legacies of discriminatory hiring and promotion policies continue to shape many aspects of the academic profession. For example, though women are earning a greater share of doctoral degrees than ever before, they continue to be less likely to be hired into tenure-track positions than men (Drakich and Stewart 2007), and 'the gender earnings divide continues to rise with years of experience for each generation' (Warman et al. 2010, 349). When all of these factors are considered, it is not surprising to learn that there are differences in satisfaction by gender and that female academics continue to find the profession more stressful than their male counterparts.

The study also illuminates the changing role that research funding is playing in the professional lives of Canadian academics. Over the last 30 years, though particularly acute in the last 10, there has been a significant change in both the tenor and mechanisms of research policy and support in Canadian universities, characterised by a drive for the production of more marketable, applied research and an increased commitment to public-private partnerships (Fisher et al. 2001; Wolfe 2005; Atkinson-Grosjean 2006; Metcalfe and Fenwick 2009). This has occurred in conjunction with drastic decreases in the size of total federal transfers, both in cash and tax points, resulting in a 40% decrease between 1988 and 2005 (Fisher et al. 2005), and the increased dependence of institutions on sponsored research (Polster 2007). This is supported by the CAP data, where 74.6% of respondents claimed that since their first appointment, 'the pressure to raise external funds had increased', 72.1% reported 'high expectations to increase research productivity', and 60.7%

believed that the production of ‘useful results and application’ are ‘a threat to the quality of research’ (Metcalf et al. 2011). In terms of job satisfaction, poor research funding may be a contributing factor to a negative assessment of the current state of the field.

5.6 Conclusions

Our objective in this chapter was to analyse the Canadian survey data from the Changing Academic Profession study in order to understand the level of work satisfaction for full-time academics working within Canadian universities. The central conclusion from this analysis is that most Canadian university academics report high levels of job satisfaction and most would make the same career choice again, though academics were less positive in their views about the future of the academic profession.

Academics were also satisfied with the physical infrastructure associated with their working environment (with the exception of some research facilities) and with other types of institutional support. They indicated that they had influence over local academic decisions at the unit level but found central administrative processes cumbersome and frustrating.

There were modest differences in response by gender, with females reporting less job satisfaction and higher levels of personal strain than their male counterparts. There continues to be important gender differences within the academic profession, a fact that university administrators and union leaders should continue to consider in the development of academic policies.

There is some indication of differences by discipline in job satisfaction, though a much larger sample would be required in order to obtain a more nuanced analysis of this phenomenon. In this study, we noted modest differences between some ‘hard’ and ‘soft’ discipline areas, but more research is necessary in order to have a clearer understanding of these differences.

Not surprisingly, there were differences in satisfaction by rank and level of remuneration. Highly paid full professors reported higher levels of satisfaction than individuals with lower salaries at lower ranks. While full-time academics in all ranks were reasonably satisfied, there is little doubt that rank and salary make a difference.

While the study clearly suggests that most full-time academics are satisfied, the fact that the survey focused only on full-time academics in traditional tenure-stream ranks is an extremely important limitation. As we have noted above, the relatively positive working conditions of full-time academics may be a function of the fact that unions and universities have protected tenure-stream academics while increasing the employment of contingent, part-time teachers in Canadian universities. The changes taking place within the increasingly fragmented academic workforce in Canada are extremely complex, and far more research is needed in order to understand the interplay between the diverse and differentiated categories of workers engaged in the academic profession.

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Chapter 6

Finland: Satisfaction Guaranteed!

A Tale of Two Systems

Timo Aarrevaara and Ian R. Dobson

6.1 Background: Satisfaction? For a Good Time Call...

What do academics take into consideration when they think about their own job satisfaction? There is an extensive literature on the theory and practice of job satisfaction in general, including a subset that has examined academic job satisfaction. These issues have been canvassed elsewhere in this volume, so they need not concern us much here. ‘Satisfaction’ with any given job depends on a wide range of factors, and in this chapter, we have considered the attitudes of academics from both sides of Finland’s binary system of higher education. As responses to the Changing Academic Profession (CAP) survey show, Finnish university and polytechnic academics hold different opinions on a range of job satisfaction-related issues.

6.2 History Ancient and Modern: The Old and the Not So Old

Finland’s higher education system is a binary one, built around institutions known as the ‘university’ and the ‘polytechnic’ (yliopisto and ammattikorkeakoulu in Finnish, respectively). Whereas the university is a very old institution in Finland, with the antecedent of the University of Helsinki dating back to 1640, the polytechnic sector has barely celebrated its twentieth anniversary. This chapter is built around

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differences between the two sectors and of the opinions held by academics from each, relating to aspects of their job satisfaction.

With the exception of Finland's first university, other universities were newly established or created from existing educational institutions in the first half of the twentieth century, followed by a spurt in the 1960s and 1970s that saw the establishment of multidisciplinary institutions in several regional cities (MinEdu 1996, p.29–30). One of the aims of the establishment of universities in regional cities and towns was to stem the internal migration from regional areas to the capital region.

Extending the improved access permitted by the university expansion into regional areas, universities' binary partners, the polytechnics were established through the amalgamation of a large number of small vocationally oriented postsecondary institutions. In fact, regional expansion in general and the establishment and subsequent development of the polytechnic sector initially promoted massification from the 1990s (Aarrevaara 2007; Hölttä and Malkki 2000).

In Finland, massification was not realised through the university sector alone, so establishing a polytechnic sector was a move intended to provide the benefits of higher education to a much wider group, simultaneously raising the level of higher education in two different but equal systems: universities and polytechnics (Ahola 1997). The major purpose of creating the polytechnic sector was '... to raise the standard of higher vocational studies and to rationalise the structure of the education system' (MinEdu 1996, p.18). Therefore, creation of the new sector made higher education available to a wider range of young people in a wider range of geographic locations, as well as increasing educational options for mature-aged students. Since the start of the 1990s, tens of thousands of mature-aged and other nontraditional students have upgraded their lower-level qualifications to become higher education graduates. Polytechnic qualifications tend to be seen as having direct relevance to the labour market, a major reason for the government's desire to establish a viable alternative to the university sector.

The polytechnics were intended to be (predominantly) teaching organisations offering more first and fewer second cycle higher education degrees and other qualifications (MinEdu 2005). However, the Finnish higher education system does not have any 'teaching only' institutions *per se*. In fact 'Polytechnics are professionally oriented higher education institutions with a responsibility for conducting applied research and development that serves teaching and working life' (Aarrevaara et al. 2011). In contrast with the situation in the university sector, it is a requirement of the polytechnics decree (15.5.2003/352; 23§) that polytechnic teachers hold formal teacher education qualifications and that they have had 3 years' relevant workplace experience before starting their polytechnic teaching career. Principal lecturers must also hold a postgraduate degree. Most polytechnic teachers emphasise the practical aspects of their discipline in their teaching.

The successful polytechnics are moving towards developing a diversified funding base, deriving income other than their core funding (Lyytinen 2011). There are indications that in the regional innovation systems, local funding has been channelled to the polytechnics. This has also been influenced by the fact that polytechnic funding comes mainly from local government (which of course, receive nearly all of their subventions

from the national government). So far, it has increased regional commitment to the polytechnics. As was the case with the development of regional universities in the 1960s and 1970s, one of the aims of regional development of polytechnics was the desire to stem the internal migration to the capital region. The assumption was that if access for Finns living in regional areas was improved, both internal and incoming migration would support development of higher education beyond the Helsinki metropolitan area. However, this has not happened because a broader network of higher education institutions has developed within the capital region (Wilson et al. 2009).

Given the practical labour market orientation of polytechnic qualifications, polytechnic graduates find themselves qualified for immediate professional entry to the labour force. This is less often the case for university graduates because many of the sections of the labour market require university students to be qualified to the extent of holding a masters degree, even if Finnish master's degrees are undergraduate degrees.

One challenge for the polytechnic sector is that a teacher's link with working life is likely to diminish over the life of their teaching career. It is therefore likely that future links with working life will only be maintained through research and development (R&D) activities, many of which are undertaken by specific R&D staff. As changes such as these evolve, it is likely that there will be important consequences for defining 'the academic profession' in Finnish polytechnics.

Governance arrangements for universities and polytechnics differ considerably, but funding for both sectors comes predominantly from the national government. In the case of the universities, about 89% can be sourced back to the government (Aarrevaara et al. 2009). For polytechnics, the proportion of nongovernment funding is also very low. Higher education systems with much higher levels of private funding are usually restricted to countries in which tuition fees are levied. For example, in the United States, private funding of higher education represents almost 70% of the total, and in Great Britain, private funding accounts for more than 35% (Minedu 2011).

However, the new Universities Act (2009/558) that took effect from the start of 2010 foreshadows a situation in which the funding base will be broadened over time (Aarrevaara et al. 2009), even if the majority source of funding will continue to be the government for the foreseeable future. One intention of the 2009 Universities Act is to diversify the funding base, but charging tuition fees to domestic students is the main way this can be affected. Most Finns remain staunchly opposed to tuition fees, something they have in common with other countries in the Nordic region.

That Finland has established a binary system in relatively recent times represents an interesting point of differentiation between the education systems in Finland and some other countries. In Australia, for example, one of the so-called Dawkins reforms of the late 1980s and early 1990s was the creation of a unitary system of universities from a binary system of research-oriented universities and teaching-oriented colleges of advanced education (DEET 1993). The Hon. John Dawkins, MHR was the education minister of the day.

The Finnish government is committed to a binary system built around discrete degrees, degree titles and functions. The government will eventually need to clarify the division of responsibilities between universities and polytechnics. The binary system in Finland has strong political support, and the system appears to be effective

from the national point of view (Aarrevaara 2007). However, two indications of the general direction in which the polytechnics see themselves moving are the increased amount of R&D activity in polytechnics, and the fact that polytechnics now refer to themselves in their English-language material as *universities of applied sciences*. The new terminology has not been accepted by the ministry of education and culture and is not to be found in ministry web pages. Even if the concept envisioned by the polytechnics decree was to establish ‘polytechnics’ rather than ‘universities’, both translations are now commonplace (Vuori 2010, 23).

The status of polytechnics has been under discussion in the context of the legislative reform of universities. An Investigators Report (Salminen and Ylä-Anttila 2010) recommends a path for polytechnics similar to the one that has been followed by universities under the Universities Act of 2009. According to this report, finance, control and the governance model for the polytechnics should be one in which the primary responsibility for funding would be transferred to government and administration organisations combined into a single legal entity. All polytechnics would operate under law as limited companies.

This chapter considers attitudinal differences between academic staff in Finnish universities and polytechnics. The development of the universities’ academic workforce is steeped in the considerable history of the sector, but academic work in polytechnics instead has emerged from a vocationally oriented system. Several of the demographic variations between the two sectors have been examined in earlier publications (see for example, Aarrevaara et al. 2011), but this chapter considers a few demographic matters, in the interests of finding similarities and differences between the academics from the respective sectors. The aim of this chapter, though, is to present a deeper examination of job satisfaction in its broadest sense. The fact of there being a newly created higher education sector in Finland provides an interesting aspect through which to examine job satisfaction among academics from divergent sectors.

6.3 The Changing Academic Profession: Some Demographic Considerations

6.3.1 The CAP Survey and the Structure of Finnish Higher Education

The Finnish CAP survey was conducted as an online survey and follow-up postal questionnaire of university and polytechnic academics staff between December 2007 and March 2008. In all, 1,452 academics responded, with respondents coming from all but one of the 20 universities operating at that time under the Ministry of Education (1,115 respondents), and 24 of the 28 polytechnics (334 respondents). Three respondents failed to identify the sector they worked in. The overall response rate was 28%. Institutional mergers in 2009–2010 mean that there are now fewer institutions than at the time the CAP survey was conducted: 16 universities and 24 polytechnics. The number of universities will be reduced further from 2013 when

the Finnish creative and performing arts universities merge. This merger has been mooted from time to time in the recent past.

The focus of future structural reform in higher education is likely to be on the polytechnics sector. One could also speculate that in the future, the institutional mergers that have occurred so far *within* each sector will be repeated *across* the sectors in regional cities, as the points of difference between ‘old’ universities and the ‘new’ universities of applied sciences become blurred. The mergers of the future are more likely to manifest themselves as takeovers or perhaps the establishment of more clearly defined pathways between the two higher education sectors.

6.3.2 A Brief Demographic Analysis

This chapter examines job satisfaction as expressed by Finnish academics from both sectors, and it therefore seemed appropriate to identify quantifiable differences between the two sectors. From earlier work, it has been observed that men were slightly overrepresented in the Finnish sample, slightly more so among university staff (Aarrevaara et al. 2011). It is also known that Finnish higher education has a relatively high proportion of junior-level staff, due primarily to the ‘apprenticeship’ model that is used to bring young people into academic positions in the university sector. It is typical for recently graduated undergraduates to accept university employment predominantly as researchers during the several years in which they are preparing and writing up their doctoral theses. It is therefore quite normal for academics to be focussed predominantly on research in the early stages of their career, moving towards teaching only later. This employment pattern is in contrast with the pattern in some countries, in which one becomes an ‘academic’ in the post-doctoral phase of their career. Anyone unaware of the Finnish model for creating the next generation of academics might mistakenly believe that Finland’s academic workforce is relatively ‘under educated’. Comparing the proportion of doctorate holders between countries would indicate that there were fewer highly educated academics in Finland, but this would be a fundamental misunderstanding about the academic preparedness of the Finnish university workforce.

Table 6.1 examines the survey population on various fronts not considered elsewhere. First, the polytechnic academic population tends to be older than its university equivalent. The mostly likely explanation of this outcome is as noted above that many university academics are research-focussed junior staff during the time they are undertaking doctoral studies. By contrast, polytechnic academic staff tend to start their career already qualified in that discipline, having been members of the workforce in their discipline and holding teacher training qualifications. With this necessary background in the professional workforce before becoming an academic means that the polytechnic workforce will always be older than the university equivalent. The CAP data show that only 12% of polytechnic academic staff were born after 1969, compared with 44.6% of university staff. At the other end of the age scale, a much higher proportion of polytechnic staff respondents to the CAP survey

Table 6.1 Academic staff: year of birth and parents' education level: universities and polytechnics

	University	Polytechnic	Total	University (%)	Polytechnic (%)	Total (%)
Year of birth	1,080	324	1,404	100.0	100.0	100.0
<1950	120	59	179	11.1	18.2	12.7
1950–1959	217	140	357	20.1	43.2	25.4
1960–1969	261	86	347	24.2	26.5	24.7
1970–1979	373	39	412	34.5	12.0	29.3
>1979	109	109	109	10.1	0.0	7.8
Education level – father	1,044	303	1,347	100.0	100.0	100.0
Tertiary	400	62	462	38.3	20.5	34.3
Secondary	298	84	382	28.5	27.7	28.4
<Secondary	346	157	503	33.1	51.8	37.3
Education level – mother	1,041	298	1,339	100.0	100.0	100.0
Tertiary	326	44	370	31.3	14.8	27.6
Secondary	374	86	460	35.9	28.9	34.4
<Secondary	341	168	509	32.8	56.4	38.0

Source: CAP survey 2007/2008

were older. Of university academics, 31.2% were born before 1960, compared with 61.4% of polytechnic academics. This age distribution suggests that polytechnics will need to undergo something of a 'staff renewal' in the near future in order to maintain a viable academic profession. As noted earlier, if the polytechnic model continues in the way it was established, that side of the Finnish academic profession will always tend to be older than academics on the university side. So long as teaching staff at polytechnics are required to meet more formal eligibility criteria than their counterparts in universities, the average age of academics in the early stages of a career in polytechnics will continue to be higher.

There is also an interesting demographic difference between the two sectors based on one aspect of academics' family background. University academics in the CAP survey tend to have more highly qualified parents. Over 38% of university academics in the CAP survey had a father with tertiary education experience, compared with 20.5% of polytechnic academics. The equivalent figures for mothers' education were 31.3 and 14.8%, respectively. Students who enter Finnish universities tend to have inherited their parents' cultural capital more often than those attending Finnish polytechnics (Statistics Finland 2009). This also seems to influence selection of the academic profession. According to responses to the CAP survey (Table 6.1), it seems that having a higher education degree-qualified parent enhances recruitment to teaching and research posts.

One observation that can be made about Finnish society (compared with say, Australian, British, Canadian or US society) is that it borders on being monocultural. Of the Finnish population of 5.4 million as at the end of 2008, only about 218,000 or 4.0% were born outside Finland. Of these, about 90,000 were Finnish citizens (Statistics Finland 2011). Although the country has two official languages, Finnish and Swedish,

Table 6.2 ‘International’ influences at universities and polytechnics

	University	Polytechnic	Total	University (%)	Polytechnic (%)	Total (%)
Finnish at birth	982	311	1,293	91.3	97.2	92.7
Finnish at first degree	955	299	1,254	91.5	96.8	92.7
Finnish now	958	289	1,247	92.7	97.0	93.7
Finland resident at birth	970	303	1,273	93.2	98.4	94.4
Finland resident first degree	908	272	1,180	91.4	96.8	92.6
Finland resident now	989	279	1,268	99.3	99.6	99.4
Finnish as mother tongue	903	287	1,190	83.8	89.7	85.1
Swedish as mother tongue	87	25	112	8.1	7.8	8.0

Source: CAP survey 2007/2008

speakers of the latter tongue represent only 5.5% of all Finns in 2008 (Statistics Finland 2011). In Finnish higher education, there are currently two universities and two polytechnics at which Swedish is the primary language of instruction. Several institutions also promote themselves as bilingual, offering tuition in both languages. Some elements of right-wing Finnish politics also ‘disapprove’ of the Swedish-speaking minority and their constitutional right to civic service in their mother tongue. Most, if not all, institutions also teach general programmes in English.

Table 6.2 summarises several aspects concerning non-Finnish influences on Finnish academics, and the first thing that is obvious is that Finnish higher education is based almost exclusively on Finland and Finnish experience. Within that observation, the table shows that external influences are greater within universities than polytechnics. The table shows that 97% of polytechnic academics were Finnish at birth, at time of first degree and currently. These figures compare with 91% to almost 93% of university academics. If it seems strange that there were more Finns at birth than subsequently, the explanation is provided by the lower number of respondents to the two other questions on nationality.

Looking at mother tongue (Table 6.2), the predominance of Finland’s two national languages is obvious. Swedish speakers (5.5% of the overall Finnish population) are slightly overrepresented in universities and polytechnics, at 8.1 and 7.8%, respectively. Few of the Swedish speakers are immigrants from Sweden. Finnish is the predominant mother tongue of Finnish academics, and the proportion of academics with a mother tongue other than Finland’s national languages is very small, at 8.1% within universities, and 2.5% within polytechnics.

Polytechnics were established primarily with the aim of being teaching providers, even though their brief expanded over the years to include research. In earlier years, this research tended to be of a ‘practical’ type, but recent years have seen a movement towards applied research. However, polytechnic respondents to the CAP survey indicated their overall preference for teaching over research, and this becomes another way to delineate between the two sectors. The propensity of polytechnic academics for teaching over research is further supported by the relative distribution of hours during and outside teaching periods.

Table 6.3 CAP survey 2007/2008: preference for teaching and/or research Finnish universities and polytechnics

	Universities		Polytechnics		Total	
	No.	%	No.	%	No.	%
Overall sample	1,115	76.8	334	23.0	1,452	100.0
<i>Preference for teaching or research</i>						
Primarily in teaching	73	6.6	127	38.8	200	14.0
In both, leaning towards teaching	163	14.8	130	39.8	293	20.5
In both, leaning towards research	489	44.5	53	16.2	542	38.0
Primarily in research	374	34.0	17	5.2	391	27.4
Total responses	1,099	100.0	327	100.0	1,426	100.0

Source: CAP survey 2007/2008

6.3.3 Teaching and Research: Preference and Time

Table 6.3 summarises the propensity of Finnish academics to prefer teaching over research by sector. It shows that almost 39% of academics from the polytechnic sector indicated that their preference was primarily in teaching, with a further almost 40% indicating a preference for both teaching and research, but with a leaning towards teaching. That is, nearly four-fifths of polytechnic academics were teaching focussed. This situation is almost reciprocal to the responses from university academics. Only 20.4% of university academics indicated a leaning towards teaching, with only 6.6% of these indicating teaching as their primary interest.

An examination of the hours spent on teaching and/or research activities, as shown in Table 6.4, backs up this finding, but it also indicates that there is a considerable research push within the polytechnic sector. During periods when classes are in session, nearly 82% of polytechnic academics indicated that they spent more than 10 h per week on teaching or teaching-related activities. This compares with 51.0% among university academics. When classes are not in session, nearly 25% of polytechnic academics spent more than 10 h on teaching and related activities, compared with only 13.4% of university academics. This difference in time consumption clearly indicates differences between the two higher education sectors. In polytechnics, teaching assignments are a central responsibility, whereas in universities, teaching is important but research and other duties take up a major part of the respondents' time. The situation is also changing in polytechnics, where R&D functions are growing rapidly. In time, this will lead to a reduction the difference between the two sectors with respect to the nature of academic work. Polytechnic R&D work is certainly available to the younger age early career cohorts in polytechnics, yet the higher proportion of polytechnic academics moving towards retirement in the next 10 years retirement suggests that there will be a greater effect than at the universities.

Looking at hours spent on research (see Table 6.4), 30.4% spent no time at all on research activities during periods when classes are in session, and it is interesting to note that about the same proportion (29.8%) spend no hours on research when

Table 6.4 CAP survey 2007/2008: hours spent on teaching and research: Finnish universities and polytechnics

	Universities		Polytechnics		Total	
	No.	%	No.	%	No.	%
<i>Teaching when classes are in session</i>						
0 h	184	18.5	19	6.1	203	15.5
1–10 h	304	30.5	38	12.	342	26.1
>10 h	508	51.0	256	81.8	764	58.4
Total responses	996	100.0	313	100.0	1,309	100.0
<i>Teaching when classes are not in session</i>						
0 h	269	32.2	49	25.7	318	31.0
1–10 h	454	54.4	95	49.7	549	53.5
>10 h	112	13.4	47	24.6	159	15.5
Total responses	835	100.0	191	100.0	1,026	100.0
<i>Research when classes are in session</i>						
0 h	76	7.6	95	30.4	171	13.1
1–10 h	334	33.5	183	58.5	517	39.5
>10 h	587	58.9	35	11.2	622	47.5
Total responses	997	100.0	313	100.0	1,310	100.0
<i>Research when classes are not in session</i>						
0 h	37	4.4	57	29.8	94	9.2
1–10 h	118	14.1	85	44.5	203	19.8
>10 h	680	81.4	49	25.7	729	71.1
Total responses	835	100.0	191	100.0	1,026	100.0

Source: CAP survey 2007/2008

classes are *not* in session. In universities, teachers use the more time for research, and in polytechnic, teachers spend more time on administrative tasks (Aarrevaara and Pekkola 2010). That research is seen by university academics as a major activity can be observed through the fact that nearly 59% of them spent more than 10 h on research during teaching periods, but this increased to 81.4% when classes were not in session.

Propensity for teaching and research and the relative amounts of time spent on these activities provide a real difference between the two sides of Finland's binary higher education system. This propensity will therefore be used in the analysis of job satisfaction among Finnish higher education academics. Given there is a fundamental difference between the teaching/research nexus in universities and polytechnics. It is possible that any differences between the two sectors are related to that nexus rather than the fact that Finland has a binary system.

The fact that the polytechnic sector was established with teaching as the principle activity of most of its academics was mentioned above. What also should be mentioned is that because many university academics start their academic career as doctoral students, their principal activity is research. Only later do Finnish academics move more into teaching, but this is not the way a typical polytechnic

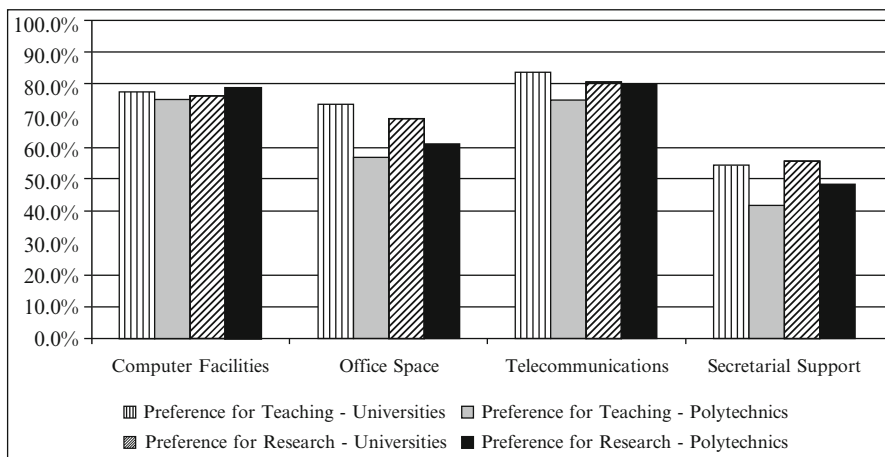


Fig. 6.1 Satisfaction with general facilities and services (1): Responses of ‘good’ or ‘excellent’

academic starts his or her career. These key differences between universities and polytechnics therefore have an impact on the relative propensities for teaching over research in the polytechnic sector.

These perspectives or themes have been examined in terms of academics’ preference for teaching or research, from three discrete angles. First, we look at physical and support factors, which are reflected in the satisfaction for infrastructure. Second, we look at governance factors, which are, for example, management or satisfaction to be influential at working place. Third, we look at profession-related factors. Finally, we examine overall job satisfaction.

6.4 Job Satisfaction: The Physical Environment

The general tenor of this volume is an examination of the determinants of job satisfaction, and an attempt to define what makes Finnish university and polytechnic academics ‘click’. One of the parameters we have used to do so is an examination of their ‘physical satisfaction’: reported job satisfaction (or absence thereof) with physical infrastructure, by sector, and by orientation to teaching or research.

The first aspect of the ‘physical’ is the general facilities available to academics. In considering this aspect of physical satisfaction, we examined responses to questions about computing facilities, office space, telecommunications and secretarial support (described in the Finnish questionnaire as *toimistopalvelut*, or ‘office services’), as summarised in Fig. 6.1.

Figure 6.1 shows the proportion of respondents from universities and polytechnics that rated computing facilities, their own office space, telecommunications and secretarial support (‘office services’) at their institutions as either ‘good’ or ‘very good’.

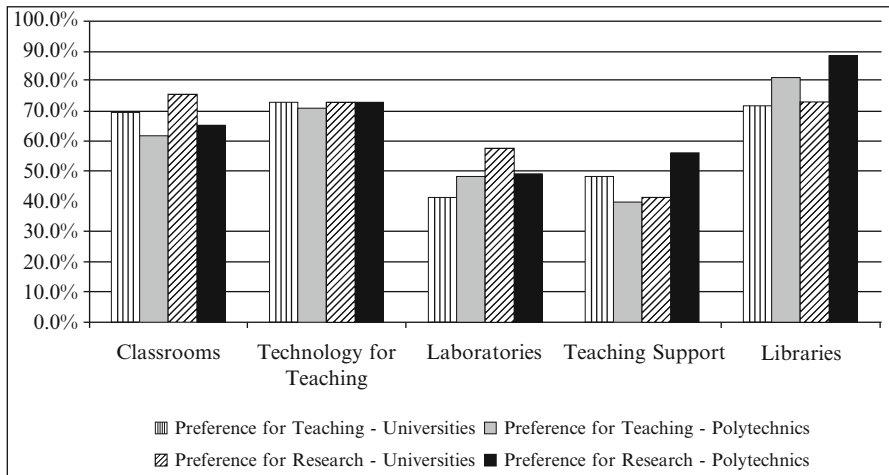


Fig. 6.2 Satisfaction with teaching facilities and services: Responses of ‘good’ or ‘excellent’

The graph shows that there is little difference in university and polytechnic academics’ impressions of institutional computing facilities, whether those academics’ leaning is towards teaching or research. Around three-quarters of academics in both types of institution rated them as ‘good’ or ‘very good’. However, university academics tended to be slightly more positive about their own office space, with a higher proportion of those with a leaning towards research rating their office space good or very good than their research-preferring colleagues. A lower proportion of polytechnic academics rated their own office space as ‘good’ or ‘very good’ compared with their university colleagues, with a higher proportion of polytechnic academics that favour research rather than teaching. A similar pattern holds for academics’ views of their institutions’ telecommunications. It should be noted that the level of strong support for the secretarial support received was quite low, with only around 55% of university academics and 42–48.0% of polytechnic academics rating it as good or excellent. Not shown in Fig. 6.1 is the fact that 16.9% of university academics rated secretarial support as poor or very poor, a better result than for polytechnics, at which 26.1% had a negative impression.

As discussed earlier, one of the differences between Finnish universities and polytechnics is their respective emphases on research and teaching. It is therefore reasonable to examine differences between universities and polytechnics with respect to the clear differences between these two academic activities. Figure 6.2 examines several physical support attributes that relate primarily to teaching. Given the recent historical development of the Finnish polytechnic sector with a primary focus on teaching, perhaps one might expect polytechnic academics to have a relatively higher opinion of the physical support they receive for teaching. In fact, a higher proportion of university than polytechnic academics rated classrooms as ‘good’ or ‘very good’. A higher proportion of polytechnic than university academics

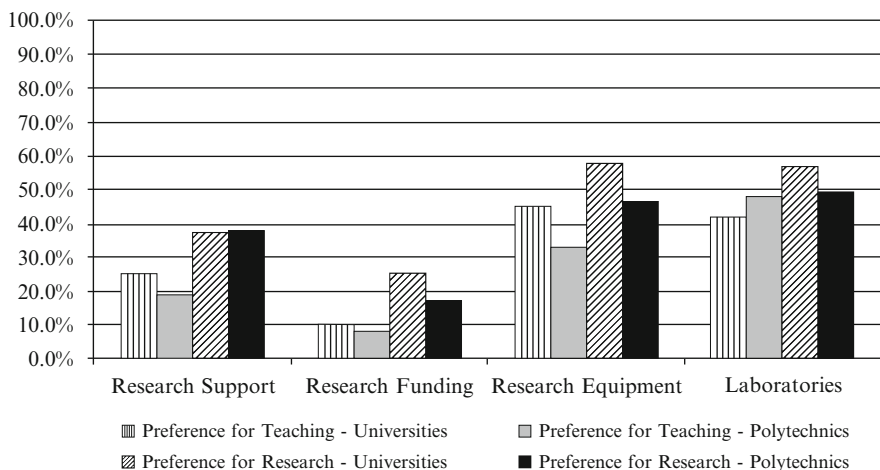


Fig. 6.3 Satisfaction with research facilities and services: Responses of 'good' or 'excellent'

with a leaning towards research believed their library facilities to be good or very good, but polytechnic and university academics with a leaning towards teaching rated libraries equally (approximately 70% of both rated libraries 'good' or 'very good'). About 70% of academics, whether in polytechnics or universities, with a leaning to teaching or research also rated technology for teaching as 'good' or 'very good'.

The proportions of academics that rated laboratories and teaching support as 'good' or 'very good' were lower overall. Arguably, the situation with laboratories could be improved by an influx of infrastructure expenditure, but university managements ought to be concerned about the perceived relatively poor service academics perceive they receive from teaching support staff. Not visible in Fig. 6.2 is the fact that 24.1% of university academics rated the teaching support they received as 'poor' or 'very poor' and 30.0% of polytechnic academics.

Figure 6.3 considers other variables that relate to physical satisfaction relating to research. Research is a higher priority at universities than at polytechnics, and a higher proportion of university academic staff rated research-related variables as good or excellent than academics from polytechnics. Over half of university academics with a leaning towards research rated their research equipment as 'good' or 'very good', compared with about 45% of polytechnic academics with a similar leaning. Academics' impressions of research support staff and research funding were rather less complimentary. In fact, nearly one-third of university academics and 46.7% of polytechnic academics believed their research support staff to be 'poor' or 'very poor'. Of academics with a leaning towards research, nearly 40% (whether from universities or polytechnics) believed the research support they received to be 'good' or 'very good'.

However, the greatest criticism in terms of the physical support for research occurs in the area of research funding. Not shown in Fig. 6.3, nearly one-half of

university academic staff and almost two-thirds of polytechnic academic staff believed research funding to be ‘poor’ or ‘very poor’, and as shown in the graph, the proportion of academics rating research funding as ‘good’ or ‘very good’ were very low, peaking at around 25% for university academics with a leaning towards research.

What might we conclude from this examination of job satisfaction and academics’ physical environment? As far as general satisfaction with general physical work conditions, Fig. 6.1 showed that a higher proportion of polytechnic academics rated their computing facilities as good or excellent, at nearly 80% across the board. Differences between polytechnics and universities, research and teaching are small. In the other areas related to general conditions (own office space, telecommunications and secretarial support – ‘office services’), fewer polytechnic than university academics rated them good or excellent. Neither group of academics was very positive about the standard of secretarial support received, but more university than polytechnic academics rated the service they received as good or excellent. In fact, at the other end of the scale, a higher proportion of polytechnic academics reported a negative view: 25.2% c.f. 16.7% of university academics reported secretarial support (‘office services’) as being poor or very poor (not shown in the figure).

Similar patterns hold with academics’ attitudes to the physical support received for teaching, although differences small for technology for teaching and teaching support staff. A higher proportion of university academics thought classrooms and laboratories to be good or excellent, and polytechnic academics were more positive about their libraries. Perhaps one might have expected relatively better responses from polytechnic staff. Polytechnics are relatively new institutions, perhaps with newer facilities, and polytechnic academics spend a higher proportion of their time on teaching.

Where research is concerned, university academics were more positive about conditions whether considering research equipment, research support staff and research funding. The across-the-board low rating of research funding should be noted. In fact, 47.9% of university academics thought research funding to be poor or very poor, compared with 65.5% of polytechnic academics, with differences of opinion between those reporting a leaning towards teaching rather than research.

6.5 Job Satisfaction: Governance-Related Factors

This section looks at factors relating to governance, to attempt to measure differences between academics from universities and polytechnics, and based on their preference for teaching or research.

First, the personal influence at the department level that academic perceive they have is considered in Table 6.5. The focus on the department is more relevant to job satisfaction, because it is within the department that academics spend much of their time. For academics with a preference for teaching, there is little difference between the responses of academics from universities and polytechnics. At both types of

Table 6.5 'At the departmental level, I am somewhat or very influential in helping to shape key academic policies...'

	University	Polytechnic	Total	University (%)	Polytechnic (%)	Total (%)
Primarily or with a leaning towards teaching	103	97	200	45.4	42.2	43.7
Primarily or with a leaning towards research	293	36	329	37.6	56.3	39.0

Source: CAP Survey 2007/8

institution, over 40% of academics felt somewhat or very influential at the department (or similar unit) level. However, for academics with a preference for research, fewer of those in universities felt somewhat or very influential at the department level. Only 37.6% of university academics with a preference for research felt influential compared with 56.3% of their colleagues at polytechnics. Perhaps the reason for the nominally few but proportionally high number of polytechnic academics feeling somewhat or very influential at the department level results from these academics being relatively 'big fish in a small pond' in the still-developing research undertaken in polytechnics.

A second set of considerations are considered in Table 6.6, a table based on academics' responses to a series of questions about communication, collegiality and relationship with central administration. Again, the distinction between universities and polytechnics is drawn, and within those, the preference of academics for teaching over research, or vice versa.

According to these results, relatively few academics from either higher education sector believed that the administration supports academic freedom. This result identifies the dilemma or contradiction between academic and administrative staff. The academic profession is based on discipline-based academic units, while the government has a strong influence on upper management structures in higher education institutions, particularly in universities. This dilemma occurs in spite of the fact that work in the modern academic workplace is based on long processes, involving both academic and administrative staff. Having staff that commute between administrative and academic work is still uncommon.

Table 6.6 reports only on responses that were highly positive and from this perspective, university and polytechnic managements might be somewhat disappointed. The top-down managed organisation prevalent in polytechnics is visible in these responses. Their respondents are more motivated, but less informed on matters relating to their higher education institutions, than the respondents from universities. Less than one-third of academics agreed or strongly agreed that there was good communication between management and academics, but over 40% of university academics agreed or strongly agreed that they were being kept informed of what was going on. The difference in response between polytechnic academics with a preference for teaching rather than research was considerable. Although 58.5% of polytechnic academics with a preference for research thought they were

Table 6.6 'I strongly agree or agree that at my institution...'

	University	Polytechnic	Total	University (%)	Polytechnic (%)	Total (%)
<i>...there is good communication between management and academics</i>						
Primarily or with a leaning towards teaching	68	66	135	30.1	26.8	28.5
Primarily or with a leaning towards research	252	20	272	31.9	30.3	31.8
<i>...there is collegiality in decision-making</i>						
Primarily or with a leaning towards teaching	57	37	95	25.7	15.1	20.3
Primarily or with a leaning towards research	194	16	210	25.1	25.0	25.1
<i>...top-level administration is providing competent leadership</i>						
Primarily or with a leaning towards teaching	95	79	175	41.9	32.0	36.8
Primarily or with a leaning towards research	315	26	341	40.1	40.0	40.1
<i>...I am kept informed what is going on</i>						
Primarily or with a leaning towards teaching	94	94	189	41.6	37.9	39.8
Primarily or with a leaning towards research	358	38	396	45.0	58.5	46.0
<i>...the lack of academic staff involvement is not a real problem^a</i>						
Primarily or with a leaning towards teaching	57	52	110	26.0	21.4	23.8
Primarily or with a leaning towards research	188	21	209	24.2	32.3	24.9
<i>...the administration supports academic freedom</i>						
Primarily or with a leaning towards teaching	44	39	84	19.7	16.4	18.2
Primarily or with a leaning towards research	192	15	207	24.6	23.4	24.5

Source: CAP Survey questions E4 and E5

^aThis is reverse-coded from the original question E5.3

being kept informed, only 37.9% of their colleagues that preferred teaching were of like mind. Relatively few academics from either sector believed that their administration supported academic freedom and for the question relating to academic staff involvement.

One observable fact from Table 6.7 is that among academics with a preference for teaching, a higher proportion of university academics agreed or strongly agreed with the propositions. Among researchers, equal proportions of university and polytechnic academics supported the propositions about good communication, collegiality leadership competence and administrative support for academic freedom. A higher proportion of the small number of polytechnic academics with a preference

Table 6.7 Job satisfaction: overall

	Universities		Polytechnics		All	
	Teaching	Research	Teaching	Research	Teaching	Research
<i>My overall job satisfaction is...</i>						
Very high (%)	14.4	13.4	16.1	15.7	15.3	13.6
High (%)	53.4	54.1	50.4	50.0	51.8	53.8
Neutral (%)	18.6	24.4	25.6	22.9	22.2	24.3
Low (%)	10.6	6.4	5.5	10.0	8.0	6.7
Very low (%)	3.0	1.6	2.4	1.4	2.7	1.6
Total (%)	100.0	100.0	100.0	100.0	100.0	100.0
Total – no.	236	857	254	70	490	927
<i>I would become an academic again?</i>						
Strongly agree (%)	36.8	35.9	46.0	48.5	41.5	36.9%
Agree (%)	21.8	26.8	31.6	25.0	26.9	26.7
Neutral (%)	21.4	20.7	14.0	20.6	17.6	20.7
Disagree (%)	13.2	9.7	7.2	1.5	10.1	9.1
Strongly disagree (%)	6.8	6.9	1.2	4.4	3.9	6.7
Total (%)	100.0	100.0	100.0	100.0	100.0	100.0
Total – no.	234	846	250	68	484	914
<i>Have things improved....?</i>						
Much improved (%)	8.2	5.4	9.1	8.7	8.7	5.6
Improved (%)	22.3	20.0	26.6	40.6	24.5	21.6
Neutral (%)	30.5	41.4	31.3	31.9	30.9	40.7
Deteriorated (%)	23.2	24.2	22.6	14.5	22.9	23.5
Much deteriorated (%)	15.9	8.9	10.3	4.3	13.0	8.6
Total (%)	100.0	100.0	100.0	100.0	100.0	100.0
Total – no.	233	838	252	69	485	907

Source: CAP Survey 2007/8. Based on responses to Questions B6, B5.5 and B7, respectively

for research believed they were kept informed (58.5%, c.f. 45.0% of university researchers) and believed that the lack of academic staff involvement was not a problem (32.3%, c.f. 24.2% for universities).

6.6 Job Satisfaction: Overall: I CAN Get Satisfaction!

So far in this chapter, we have reported on what academics reported in the Finnish CAP survey in 2007/2008. Despite the ups and downs of opinion reported by academics about a range of specific elements of their jobs, perhaps the ultimate test of the health of the higher education sector is academics' overall opinion of their job satisfaction, and whether they would become academics if they had their time over again. Their impressions about whether the sector is improving or deteriorating is also important. This section therefore provides an analysis of these things, with a summary in Table 6.7.

Overall satisfaction with a job describes the attitude of the respondent, but the underlying factors may vary. For example, job permanency seems to contribute to satisfaction, but this particularly important indicator varies according to age as well as between disciplines.

Looking first at overall satisfaction, it can be seen that around two-thirds of Finnish academics rated their satisfaction as very high or high, whether in universities or polytechnics, with only minor differences between academics with a leaning towards teaching or research. Almost a quarter of the remaining academics described their satisfaction level as neither high nor low, again the opinion of academics in both sectors, with the proportion of 'neutral' university teachers being lower than other groups of academics. At the bottom end of the scale, only around 9% of academics overall described their job satisfaction as low or very low; there are a number of minor variations between the groups. The table shows that 13.6% of university academics with a leaning towards teaching rated their overall job satisfaction as low or very low, compared with 7.9% of polytechnic academics with a leaning towards teaching. Equivalent figures for university and polytechnic academics with a leaning towards research were 8.0 and 11.4%, respectively. Therefore, it was university academics with a leaning towards teaching and polytechnic academics with a leaning towards research that reported the lowest overall job satisfaction.

As to whether Finnish academics would become academics again, given their time over, university academics are less convinced. Of university academics, a relatively modest 58.6% of those with a leaning towards teaching agreed or strongly agreed with the proposition that they would do it all again. Their research-leaning colleagues were slightly more optimistic, with 62.7% reporting that they agreed or strongly agreed that they would become academics a second time around. Polytechnic academics, it would seem, are much keener on their decision to become academics, and a higher proportion of those with a leaning towards both teaching (77.6%) and research (73.5%) agreed or strongly agreed with the proposition. Looking at academics that disagreed or strongly disagreed that they would become academics again, the proportion of disenchanting university academics is much higher. About 20% of university academics with a leaning towards teaching disagreed or strongly disagreed that they would become an academic again (c.f. 8.4% of the equivalent polytechnic cohort) and 16.6% of those with a leaning towards research (c.f. 5.9% in polytechnics).

Opinions of academics in the two sectors are also different when change over time was considered. Among university academics, 39.1% of those with a leaning towards teaching and 33.1% of those report research as their leaning believed that things had deteriorated or greatly deteriorated. Among polytechnic academics with a leaning towards teaching, 32.9% believed things had got worse, but only 18.8% of their colleagues with a leaning towards research believed that conditions had deteriorated or very much deteriorated since they started their career. Having around one-third of the academic workforce reporting that their situation had deteriorated would not be pleasing news to those responsible for developing higher education policies, but the equivalent proportion of academics in some countries is in excess of 60, and 62% in the case of the United Kingdom (Locke and Bennion 2011).

At the other end of the scale, however, and trying to look to the positive, there are differences of opinion about improvement over time between academics from universities and polytechnics, either teaching or research oriented. Over 49% of polytechnic academics with a leaning towards research believed that overall working conditions had improved or very much improved since they began their career and 35.7% of those with a leaning towards teaching.

With the exception of university academics with a leaning towards research, of whom 41.4% believed that conditions had neither improved nor deteriorated, around 31% of Finnish academics reported neither improvement nor deterioration.

6.7 I'm Satisfied! Some Discussion and Conclusions About Finnish University and Polytechnic Academics

In some ways, perhaps asking someone (e.g. an academic), if they are satisfied, is a bit like the question 'How long is a piece of string'. From our analysis of academics' responses to a range of questions put to them in the CAP survey, it would seem that Finns in both sectors are reasonably content with most things in their scholarly life. We would all like to have more say in what happens and when, and we want to feel that we are well remunerated, well housed and well respected. It would seem that Finnish academics *are* reasonably satisfied with their lot.

The results indicate uniform expectations of academic work and culturally homogenous conditions. In this chapter, however, we have identified that circumstances differ by sector. Respondents from polytechnics are reported that their institutions follow a top-down management style. Universities have stronger academic departments and are more familiar with bottom-up management than are their counterparts in the polytechnic sector. One major reason is the historical tradition of universities, which has emphasised the role of the academic profession. This has been reflected in the system that is built on a long history of a strong professoriate. Polytechnics emerged only in the last decade of the twentieth century, and their governance culture follows more typically the governance culture of this era. The increasing autonomy of higher education institutions may mean increasing dissatisfaction with the governance models imposed from outside. Public debate has brought this up throughout Europe because the expectations of the profession and those promoted by the changing governance do not line up.

Although the results of the two sectors are close to each other, there are different reasons for satisfaction. Respondents from universities placed a stronger emphasis on academic freedom, while respondents from polytechnics found their working conditions to be important. In both sectors, it is important for the conditions to be adequate. Results indicate that respondents who have research-oriented careers place more emphasis on working conditions and technical support than their teaching-oriented colleagues, and this observation applies in particular to academics from polytechnics.

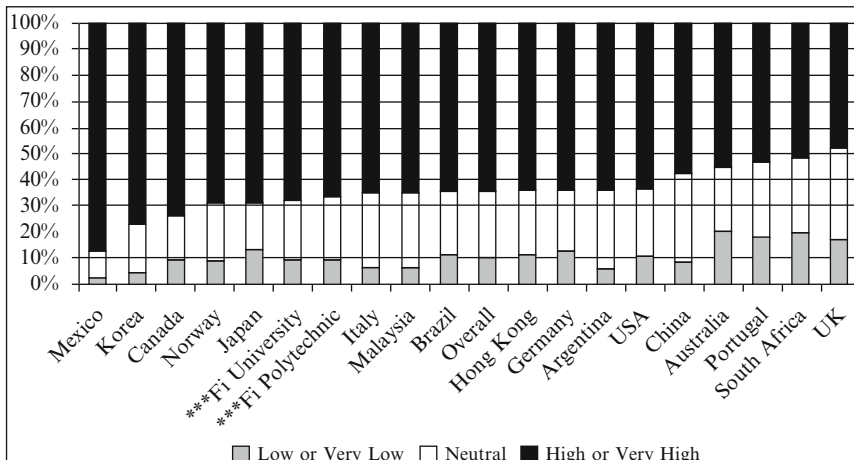


Fig. 6.4 Overall job satisfaction: responding nations; Finland by higher education sector (CAP Survey Question B6)

Approximately half of Finland’s university respondents and over two-thirds of the respondents from polytechnics felt that their institutions followed a top-down style of management.

If Finnish academics tend to be relatively satisfied with their occupation, how do they compare with academics from the other responding nations? In fact, as Fig. 6.4 shows, they rank their overall job satisfaction quite highly. With the exception of the (apparently) ecstatic Mexicans, and the only-slightly-less-happy Koreans and Canadians, Finnish higher education institutions rank with a number of other countries, with around two-thirds of academics reporting a high or very high level of satisfaction.

This is all very well, but it does mean that those responsible for running higher education institutions, from the Ministry of Education down, need to become aware of the drivers of job satisfaction and try to ensure a continuation of at least the current situation. Figure 6.4 shows both sectors of Finnish higher education, and it is interesting that when ranking satisfaction according to responses on ‘high’ or ‘very high’, there is little difference between the two Finnish sectors.

The nature of academic work is very different in the countries that participated in the CAP survey. As has been stated elsewhere, (Aarrevaara et al. 2011), in Finland young academics typically undertake research, only moving into teaching as they qualify and mature. This is not an observation that could be made of many participant countries in the CAP survey, and it could lead to some long-term consequences. If this is discussed from the perspective of mobility, so a career in the early stages is difficult for foreigners in Finland. Coming from sectors in which their early years and experience has been in teaching can be significant, but their research experience would not usually be above the level of Finnish recent doctoral graduates. This situation also makes it difficult for the placement of Finnish academics abroad.

In the polytechnics, there is a surprisingly low level of satisfaction with the facilities and support services. After the completion of this survey, research, development and innovation, services have been a key target resourcing polytechnic sector. Therefore, it might have been expected that in recent years satisfaction would have increased with regard to this factor.

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Chapter 7

Determinants of Academic Job Satisfaction in Germany

Ester A. Höhle and Ulrich Teichler

7.1 Introduction

Academic contributions are strongly dependent on individual commitment and motivation. In a changing environment, where universities as well as other higher education institutions are in processes of transformation, academics increasingly find themselves caught between discordant institutional goals. Universities aim both to pursue outstanding innovative research which strikes the balance between a basic, applied commercial or social emphasis and to educate students. These manifold academic tasks have to be taken care by the academic staff. In most cases, the same individual scholars are in charge of multiple tasks (Kreckel 2008). To fulfil varied tasks can be perceived as complementary or as opposing, as enriching or as distracting from the pursuit of any single task. The academics' schedule entails freedom and requires making decisions to prioritise and to select foci. Therefore, the actual academic work is strongly shaped by an individual commitment and motivation, and this is closely linked to professional satisfaction. The aim of the subsequent analysis is to explore how changing environments, contractual conditions, resources, time budget and the managerial style prevailing within one's institutional setting influence the academics' personal overall satisfaction.

Satisfaction in one's professional life is a key element in making a profession attractive (Cabrita and Perista 2007b), and it can contribute to success at work and personal well-being. Actually, overall job satisfaction is addressed in most surveys on employment, but few studies aim to explore the factors which determine the job satisfaction of the academic profession.

There are several concepts of job satisfaction. A most elementary approach to satisfaction explains it as the result of a comparison between the target (expectation)

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Table 7.1 Institutional type and academic rank of academics in Germany (percentage)

	Universities	Universities of applied sciences	Research institutes
Senior position	14	69	29
Junior position	86	31	71
Total	100	100	100
Total (<i>n</i>)	(1,017)	(132)	(465)

Source: CAP data set (May 2010)

Question A9: How would you describe your current institution?

Question A10: What is your academic rank?

and the perception of the actual condition (realisation of expectation). According to this approach, an insufficiently realised expectation leads to dissatisfaction (Rudow 1994, cited by Enders 1996). Rose views job satisfaction ‘as a bi-dimensional concept consisting of intrinsic and extrinsic satisfaction dimensions. Intrinsic sources of satisfaction depend on the individual characteristics of the person, such as the ability to use initiative, relations with supervisors, or the work that the person actually performs; these are symbolic or qualitative facets of the job. Extrinsic sources of satisfaction are situational and depend on the environment, such as pay, promotion, or job security; these are financial and other material rewards or advantages of a job. Both extrinsic and intrinsic job facets should be represented, as equally as possible, in a composite measure of overall job satisfaction’ (Rose 2001, cited by Cabrita and Perista 2007a). In the ‘Changing Academic Profession’ (CAP) survey, satisfaction is addressed with the question ‘How would you rate your overall satisfaction with your current job?’; that means that to a certain extent, satisfaction is viewed as underlying the personal interpretation of the respondents.

The subsequent analysis of the 2007 CAP survey focuses on the responses of the German academics in an international comparative perspective. The sample comprises respondents from German universities, universities of applied sciences and public research institutes.

7.2 The German Academics Surveyed in the CAP Study

A total of 1,709 academics responded to the German CAP survey. The subsequent analysis excludes respondents from types of institution represented only marginally in the study (e.g. colleges of fine arts) and thus is based on 1,630 responses from academics at universities, universities of applied sciences and public research institutes. The sample has been weighted in order to make it correspond closely with the overall population of academics at these three institutional types.

Table 7.1 shows that the proportion of junior academic staff varies in Germany substantially by institutional type. At universities, we note that six times as many junior academics are employed as senior academics (persons in positions equivalent to professor and associate professor in the US higher education system).

Table 7.2 Institutional type and gender of academics in Germany (percentage)

	Universities		Universities of applied sciences		Research institutes	
	Senior	Junior	Senior	Junior	Senior	Junior
Male	81	62	80	81	91	79
Female	19	38	20	19	9	21
Total	100	100	100	100	100	100
Total (<i>n</i>)	(135)	(787)	(86)	(36)	(115)	(276)

Source: CAP data set (May 2010)

Question F1: What is your gender?

Research institutes also have a quantitative dominance of junior staff. In contrast, most academic positions at universities of applied sciences are professorial positions. These differences are due to the fact that junior academics are predominantly assigned research tasks and that universities of applied sciences are primarily expected to provide teaching (cf. the information on the academic profession in Germany provided in Teichler 1990, 2007; Kehm 1999; Bracht and Teichler 2006). It should be added here that the career patterns for professorships vary according to the type of institution. The dominant entrance qualification for university professors as well as for directors at research institutes is the ‘habilitation’ (a postdoctoral academic degree), whereas the 5 years of postdoctoral professional experience required for a professorial position at a university of applied sciences would usually comprise several years of professional experience outside academia (i.e. in professional areas in which their students are likely to be employed after graduation).

The proportion of women among senior academics is relatively low in international comparison: one-fifth or even less in the three institutional types. Among junior academics, more than one-third at universities are women, but only about one-fifth at each of universities of applied sciences and research institutes. This reflects the high proportion of science and engineering academics in the latter two institutional types. There are lively discussions in Germany about the extent to which the relatively low percentage of women among academics can be attributed to a ‘glass ceiling’ effect, that is, a relatively stable barrier for women as far as success in academic careers is concerned, or to a cohort effect according to which gender inequalities tend to be eroded gradually over time (Table 7.2).

7.3 Satisfaction in Comparative Perspective

In response to a five-point scale from 1 = very high to 5 = very low, German university professors expressed an average satisfaction of 2.24 (standard deviation 0.94), which exactly corresponds the average of 18 countries and regions addressed in the

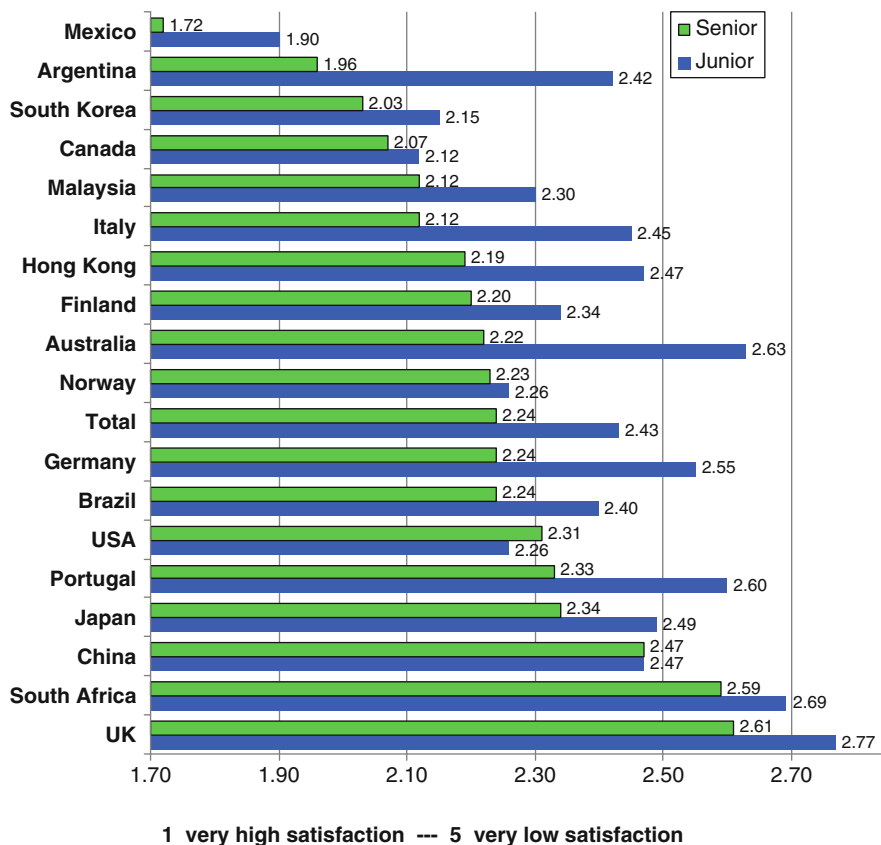


Fig. 7.1 Satisfaction of junior and senior academics at universities – international comparison (arithmetic mean). B6: How would you rate your overall satisfaction with your current job? Scale of answers: 1 = very high to 5 = very low (Source: CAP data set (May 2010))

CAP survey. Figure 7.1 shows a substantial variation by country. Senior academics from Mexico (1.72) and Argentina (1.96) are most highly satisfied on average, while senior academics in China (2.47), South Africa (2.59) and the United Kingdom (2.61) are the least satisfied. Russo (2010) notes in his study that Asian academics are relatively dissatisfied compared to European and North-American academics; according to this study, this holds true for senior academics in China and Japan, but not for those in Korea, Malaysia and Hong Kong.

In all countries except for China and the USA, junior academics at universities are somewhat less satisfied than their senior colleagues. The pattern by country is similar to that among senior academics. In Mexico, junior academics are the most satisfied (1.90) and the juniors in South Africa (2.69) and the United Kingdom (2.77) are least satisfied. German junior academics at universities rate 2.55 on average, that is, they are slightly less satisfied than the mean of all academics surveyed (2.43).

Actually, 55% of the junior academics as compared to 70% of senior academics at German universities expressed a very high or a rather high degree of satisfaction (cf. the analysis of the changes of junior academics' satisfaction over time in Germany in Jacob and Teichler 2009; cf. also Enders and Teichler 1995a, b; Grünh et al. 2009).

The differences of ratings between the senior and the junior academics, however, vary substantially by country: junior academics from Argentina and Australia are clearly less satisfied on average than senior academics from the universities of these two countries.

A high degree of academics' overall satisfaction with one's job does not come as a surprise. Similar results can be found in surveys in most countries across most occupational groups (see Parent-Thirion et al. 2007; Cabrita and Perista 2007a). This is often explained as a normal psychological effect: individuals have to identify themselves at least in part with their organisation in order to be able to undertake their work. Being 'inside' the system would put individuals into an inner conflict if they allowed themselves to be dissatisfied. Allowing oneself to accept dissatisfaction comes close to an inner termination and suggests looking for other job opportunities. Similarly, job satisfaction can be viewed as the normal result of a self-selecting effect: employees being extremely dissatisfied will try to change the character of their workplace or will seek another position (see Bruggemann et al. 1975).

In the framework of this study, we cannot interpret the differences between the countries simply as an indication of differences in conducive working conditions. Rather, satisfaction must be seen in a cultural context. In so-called 'high-context' cultures, disagreement is expressed with great caution. Therefore, a statement of dissatisfaction by staff from such cultures, for example, China and Japan, can be interpreted as being based on an even more highly dissatisfied feeling (see Hoecklin 1995). Such a concept, however, does not explain why academics in Mexico express such a higher level of satisfaction than those in Finland and Germany, for example. Further analysis would be needed to disentangle cultural effects from actual responses to the employment and work conditions.

The CAP questionnaire comprised several questions which are closely linked to that of the overall satisfaction:

- Have you considered a major change in your job? And did you take concrete actions to make such a change? – to work outside higher education?/research institutes?
- This is a poor time for any young person to begin an academic career in my field.
- If I had it to do over again, I would not become an academic.
- My job is a source of considerable personal strain.
- Working conditions in higher education: improved/deteriorated.

Obviously, the variables differ in the extent to which they can be considered as being conceptually close to overall satisfaction. Again, the meaning of the questions might differ culturally; for example, the meaning of 'strain' might vary by society,

for example, if the society is rather hedonistic or rather follows a ‘no pain, no gain’ or ‘no sweet without sweat’ attitude.

An analysis of the links between these variables for both senior and junior academics at universities shows that all of them correlate significantly (Pearson’s r is two-tailed significant at the .01 level) with overall satisfaction. Thereby, the variable ‘If I had it to do over again, I would not become an academic’ correlated most highly with overall satisfaction. However, such positive correlations cannot be observed consistently across all countries. There is no significant correlation for Mexican senior and junior academics and senior academics in China, Portugal and Finland as regards the variable ‘This is a poor time for any young person to begin an academic career in my field’. This suggests that academics of these categories in these countries might be satisfied even if they believe that now would be a bad time to embark on an academic career.

As these variables address very different thematic areas and they have no further explanatory value for the overall level of professional satisfaction, they will not be considered in the subsequent analyses.

7.4 Socio-biographic and Institutional Factors

7.4.1 *Institutional Type*

Table 7.3 demonstrates the differences in overall satisfaction according to the institutional type in Germany. Both senior and junior staff at public research institutes are clearly more often highly satisfied than those at higher education institutions. For example, a very high degree of satisfaction is expressed by 44% of the directors at research institutes in contrast to 20% among university professors and 19% of the professors at universities of applied sciences. The means presented in Table 7.3, however, indicate that the overall professional satisfaction is slightly higher at universities than at universities of applied sciences in Germany.

7.4.2 *Gender*

All female academics, both senior and junior, at German universities are slightly less satisfied on average than their male peers. As Table 7.4 shows, a similar difference can be observed for senior academics in all countries addressed in the CAP study except for Finland and the USA. In contrast, female junior academics at universities are equally satisfied as men or more highly satisfied in a substantial number of countries. Again, it would be interesting to see whether there are relatively stable conditions that are conducive to higher satisfaction levels among professors or

Table 7.3 Satisfaction of academics in different institutions and ranks in Germany (arithmetic mean)

	Universities	Universities of applied sciences	Research institutes
Senior position	2.19	2.33	1.67
Junior position	2.53	2.72	2.10
Total	2.48	2.45	1.97

Source: CAP data set (May 2010)

Question B6: How would you rate your overall satisfaction with your current job? Scale of answers: 1 = very high to 5 = very low ($N=1,499$)

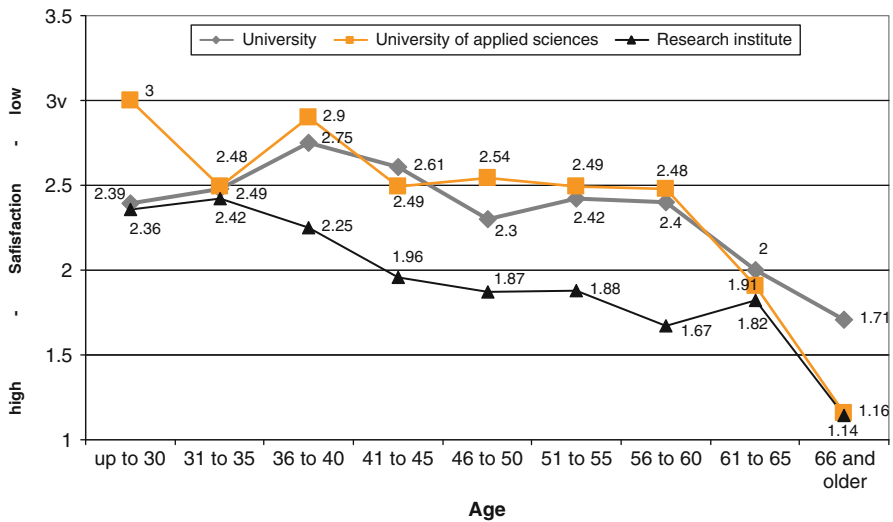


Fig. 7.2 Job satisfaction of academics according to age and institutional type in Germany (arithmetic mean). Question B6: How would you rate your overall satisfaction with your current job? Scale of answers: 1 = very high to 5 = very low. $N=1,428$ (Source: CAP data set (May 2010))

whether the data indicate that women eventually catch up with men in having conducive conditions for a highly professional profession.

7.4.3 Age

Figure 7.2 shows the variation of professional satisfaction according to respondents' age. Accordingly, satisfaction remains relatively constant at universities and universities of applied sciences in Germany among those aged between 30 and 60 years. In contrast, satisfaction grows with age at research institutes in Germany. At all

Table 7.4 Job satisfaction of women and men at universities – international comparison (arithmetic mean)

	Mexico	Argentina	Canada	South Korea	Italy	Malaysia	Hong Kong	Brazil	Australia	Germany	Norway	Finland	Portugal	Japan	USA	China	South Africa	United Kingdom
<i>Senior</i>																		
Male	1.68	1.92	2.00	2.02	2.06	2.08	2.16	2.17	2.20	2.20	2.20	2.21	2.24	2.29	2.33	2.44	2.55	2.59
Female	1.79	2.00	2.28	2.11	2.27	2.19	2.33	2.32	2.32	2.42	2.32	2.21	2.37	2.60	2.29	2.53	2.60	2.69
<i>Junior</i>																		
Male	1.91	2.33	2.04	2.13	2.46	2.17	2.42	2.31	2.71	2.47	2.23	2.36	2.60	2.50	2.10	2.45	2.84	3.02
Female	1.88	2.49	2.22	2.22	2.43	2.43	2.54	2.49	2.56	2.64	2.27	2.33	2.67	2.47	2.42	2.49	2.50	2.60

Source: CAP data set (May 2010)

Question B6: How would you rate your overall satisfaction with your current job?

Scale of answers: 1 = very high to 5 = very low

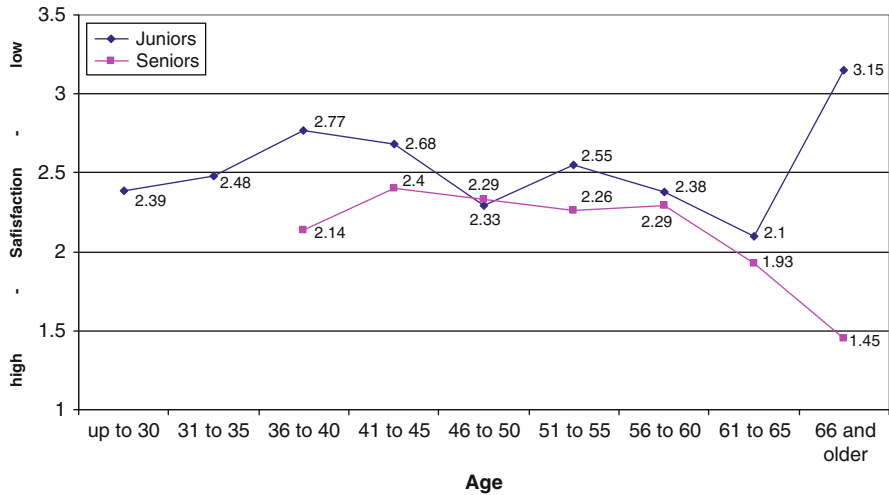


Fig. 7.3 Job satisfaction of academics according to age in senior and junior positions at universities in Germany (arithmetic mean). Question B6: How would you rate your overall satisfaction with your current job? Scale of answers: 1 = very high to 5 = very low. *N* = 914 (Source: CAP data set (May 2010))

three institutional types, those older than 60 are happier than the younger ones. It cannot be established here how far this effect can be interpreted as an age effect or a cohort effect or has to do with the conditions of the academic workplace of this age cohort.

Figure 7.3 shows that the satisfaction of academics in junior ranks varies more strongly according to age than the satisfaction of university professors. The level of satisfaction is relatively low among those in their late 30s and early 40s, that is, among those who become aware of the fact that their chance of becoming a professor is fading but who remain in academia. Those who are older and remain working in universities are more satisfied with their overall professional situation, except for the few respondents who remained in academia beyond their mid-60s, that is, above the typical retirement age. In contrast, satisfaction among university professors is relatively high among the youngest, that is, those already appointed in their 30s and among those older than 60.

A further category that has an impact on the overall satisfaction is the choice of disciplines. The satisfaction means range from 1.82 (senior academics in business and administration, economics) down to 2.93 (junior academics in teacher training and education science). We can observe that the larger proportions of university staff (with 14% of the respondents) in engineering, manufacturing and construction and architecture and from physical sciences, mathematics and computer sciences (that make up 18%) are relatively content with their job. The least-satisfied disciplinary group is made up by junior academics in teacher training and education

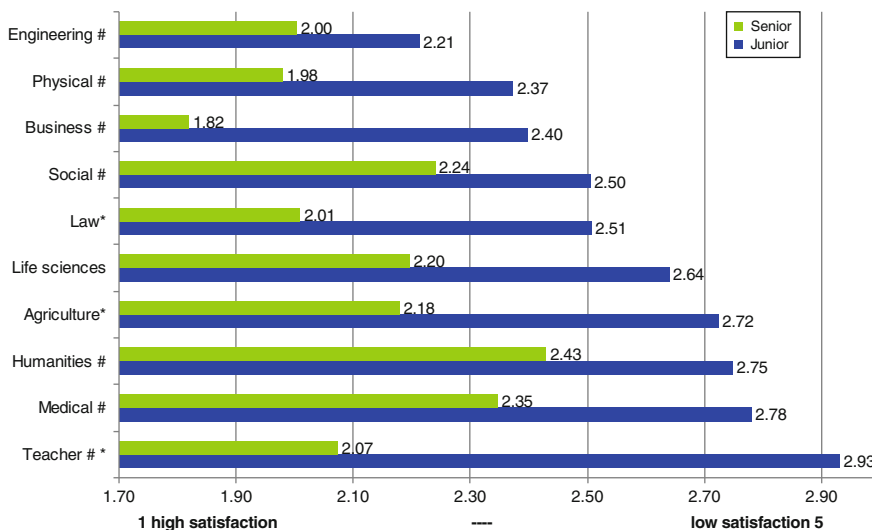


Fig. 7.4 Job satisfaction of senior and junior academics at German universities according to discipline (means). Question A2: Please identify the academic discipline of your current academic unit Abbreviation of disciplines: *Engineering #* Engineering, manufacturing and construction, architecture; *Physical #* Physical sciences, mathematics, computer sciences; *Business #* Business and administration, economics; *Social #* Social and behavioural sciences; *Humanities #* Humanities and arts; *Humanities #* Medical sciences, health-related sciences, social services; *Teacher #* Teacher training and education science*. N (senior)= 131; N (junior)= 772; juniors as reference category because the sample size is more reliable. * $n \leq 5$ senior respondents (Source: CAP data set (May 2010))

science. The largest disciplinary group, however – medical sciences, health-related sciences and social services – makes up a quarter of the university staff, but is also not highly satisfied. Humanities and arts with 11% of the sample is the third least-satisfied group. The differences in satisfaction between junior and senior academics vary strongly among the disciplines. Figure 7.4 also shows that job satisfaction does not vary consistently across major disciplinary groups, for example, between humanities and natural sciences. Rather, there are differences according to individual disciplines.

7.5 The Role Played by Employment Conditions and the Work Situation

In contrast with professors, most of whom are full-time and permanent employees, the employment conditions of junior staff at higher education institutions and research institutes vary substantially in Germany, and issues of employment conditions in the early stages of academic careers have been a major issue of debate in Germany (see Teichler 2008; Jacob and Teichler 2011; Burkhardt 2008; BMBF 2008).

Table 7.5 Job satisfaction of junior academics at various institutional types in Germany according to employment contract (arithmetic mean)

	Universities of applied		
	Universities	sciences	Research institutes
Permanently employed (tenured)	2.17	(1.52)	(1.25)
Continuously employed (no preset term, but no guarantee of permanence)	2.43	2.82	1.92
Fixed-term employment with permanent/continuous employment prospects (tenure track)	2.49	(2.00)	1.95
Fixed-term employment without permanent/continuous employment prospects	2.58	3.11	2.44
Other	2.44		(2.00)

Source: CAP data set (May 2010)

Question A11: What is the duration of your current employment contract at your higher education institution or research institute? In brackets: $n \leq 8$

7.5.1 Duration of Contract

Table 7.5 shows that junior staff with clear lifetime employment are the most satisfied. Those continuously employed, whose contract could only be terminated following a period of notice, however, are only moderately more highly satisfied than those with a fixed-term contract, on average. Moreover, there are reasons to cast doubt whether job security as such is an important factor for satisfaction, because contract duration, as a rule, goes along with certain qualities of the work tasks, the range of responsibility and influence within the organisation. Differences in satisfaction according to duration of contract may be explained partly by the quality of the work situation.

7.5.2 Full-Time and Part-Time Employment

Similarly, we note that junior academics in Germany employed full-time are more highly satisfied than those employed part-time. This holds true both at universities (2.47 as compared to 2.69) and for research institutes (2.04 as compared to 2.43). In contrast, part-time junior academic staff at universities of applied sciences are more highly satisfied than those employed full-time (2.41 as compared 2.76). One has to bear in mind, though, that the number of junior staff at universities of applied sciences is extremely low; unique conditions which led to this surprising result might have come into play.

Table 7.6 Job satisfaction of senior and junior academics at various institutional types in Germany according to material and staff support (arithmetic mean)

		Universities		Universities of applied sciences		Research institutes	
		Senior	Junior	Senior	Junior	Senior	Junior
Material support	+	1.84	2.17	1.82	2.33	1.65	1.95
	~	2.30	2.70	2.57	3.38	2.00	2.35
	-	(3.43)	3.59	(2.9)	(3.48)	(4.00)	(4.00)
Total		2.27	2.61	2.44	2.83	1.73	2.06
Staff support	+	1.79	2.32	(1.69)	2.53	1.48	1.94
	~	2.26	2.48	1.96	2.97	2.21	2.17
	-	(2.68)	(3.08)	(2.57)	(2.53)	(2.00)	(2.47)
Total		2.21	2.59	2.34	2.72	1.70	2.07

Source: CAP data set (May 2010)

Question B3: At this institution, how would you evaluate each of the following facilities, resources or personnel you need to support your work? 1=excellent through 5=poor. In brackets $n \leq 8$

7.5.3 Resources for Academic Work

In the CAP questionnaire, respondents have been asked to assess the material conditions of their work according to nine areas (quality of classrooms, office space, equipment of laboratories, computer facilities, library, research funding, etc.) as well as their staff support in three areas (secretarial support, academic staff support for teaching and for research). In Table 7.6, the ratings are aggregated for material support and for staff support, even though the ratings for individual areas might vary. For example, computer facilities are more positively rated than research funding, and secretarial support is more favourably assessed than academic staff support for teaching.

Table 7.6 shows that material conditions and staff support are crucial factors for overall professional conditions of academics. It is interesting to note that material conditions are more important for the satisfaction of junior academics than for the satisfaction of senior academics. In contrast, the quality of staff support is more important for the overall satisfaction of senior academics than for the satisfaction of junior academics. The latter finding is not surprising because junior staff can count on staff support for their academic work to a much lesser extent than professors and directors at research institutes.

7.5.4 Preferences and Time Budget for Teaching and Research

The time budget can be viewed as a response to the working environment; however, academics obviously have ample room as regards how much time they reserve for teaching and for research, and this is strongly influenced by their academic

Table 7.7 Time spent on teaching and research and job satisfaction of senior and junior academics at German universities according to preferences for teaching and research (arithmetic mean)

	Focus of interests	Teaching (%)	Research (%)	Overall satisfaction	N
Seniors	Primarily in teaching	51.0	24.3	2.75	8
	In both, but leaning towards teaching	35.8	33.6	2.53	30
	In both, but leaning towards research	26.2	37.4	2.12	93
	Primarily in research	20.4	54.9	2.12	18
Total		28.9	37.7	2.23	148
Juniors	Primarily in teaching	42.1	26.6	2.78	59
	In both, but leaning towards teaching	32.0	34.3	2.73	181
	In both, but leaning towards research	20.8	54.4	2.47	315
	Primarily in research	12.7	70.3	2.47	272
Total		22.3	52.8	2.55	826

Source: CAP data set (May 2010)

Question B1: Percentage of time spent for teaching/research in relation to overall time spent

self-understanding. Table 7.7 shows that German university professors who have a clear preference for teaching spend about two and a half times as much of their working time on teaching than those having a clear preference for research. We note similar differences among junior academics at German universities.

However, those academics at German universities who put emphasis on teaching are less satisfied with their job than those giving a preference for research. It is interesting to note, though, that those interested in both teaching and research with a stronger emphasis on research are equally satisfied on average as those who point out a clear preference for research.

7.6 The Impact of the Managerial Environment

Finally, we examine the extent to which the academics' overall job satisfaction is linked to their perceived managerial environment. In a previous publication, it was shown that the CAP questionnaire aimed to explore the extent to which academics consider the managerial style at their university to correspond the following four types:

- *The academic university* – ‘conceived here as an institution of higher education in which individual academics have a strong personal influence on decision-making’
- *The managerial university* – characterised by strong management, defined structures that are hierarchic in their character
- *The collegial university* – emphasised by, ‘i.e. the collegiality of the various actors within higher education institutions’
- *The supportive university* – emphasised by administrative structures that support teaching and research (Teichler 2010)

Table 7.8 Job satisfaction of senior and junior academics at various institutional types in Germany according to perceived managerial styles (arithmetic mean)

		Universities		Universities of applied sciences		Research institutes	
		Senior	Junior	Senior	Junior	Senior	Junior
Academic	+	2.01	2.27	2.01	2.41	1.70	1.76
	~	2.39	2.62	2.50	2.21	1.67	2.00
	-	3.00	2.54	2.60	3.23	(2.00)	2.54
		**			*		**
Managerial	+	1.94	2.30	2.14	(2.37)	1.40	1.82
	~	2.24	2.53	2.19	2.78	1.90	2.19
	-	2.56	2.85	3.13	(2.00)		2.47
		*	**	*		**	**
Collegial	+	1.77	2.09	1.93	2.02	1.29	1.93
	~	2.20	2.49	2.36	2.75	1.80	2.11
	-	2.76	3.27	3.13	3.44	(1.67)	2.68
		**	**	**	**	*	**
Supportive	+	1.62	1.90	1.92	1.49	1.33	1.73
	~	2.00	2.44	2.17	2.34	1.78	2.04
	-	2.67	2.82	2.68	3.42	2.00	2.36
		**	**	*	**	**	**
Total (n)		140–129	632–698	70–80	23–35	78–103	163–245

Source: CAP data set (May 2010)

* significant correlation on a .05 level; ** significant correlation on a .01 level

Question B6: satisfaction 1 = very satisfied through 5 = very dissatisfied. In brackets: $N < 15$

(The indexes were built from the following items: ‘The “*academic university*”: the questions about personal influence at the levels of department, faculty and institution. The “*managerial university*”: “A strong performance orientation”, “a strong emphasis on the institution’s mission”, “a top-down management style”. The “*collegial university*”: “Students should have a stronger say in determining policy that affects them” (in reverse scale order), “I am kept informed about what is going on at this institution”, “collegiality in decision-making processes”, “good communication between management and academics”, “lack of faculty involvement is a real problem” (in reverse scale order). The “*supportive university*”: “The administration supports academic freedom”, “a supportive attitude of administrative staff towards teaching activities”, “a supportive attitude of administrative staff towards research activities”, “professional development for administrative/management duties for individual faculty”, “a cumbersome administrative process” (in reverse scale order)’ (Teichler 2010)).

The previous publication showed that university professors in Germany, in comparison with their peers in the other countries addressed in the CAP study, perceive their universities as resembling a high extent of the type ‘academic university’ and less than in most other countries type of a ‘managerial university’.

Table 7.8 presents surprising findings. First, it shows that any strong type of managerial style is closely linked to high satisfaction, no matter whether academics consider their university to be strongly collegial, strongly managerial, etc., they are more highly satisfied than those who consider their institution to be weakly collegial, weakly managerial, etc. Second, those considering the managerial style as ‘collegial’ and ‘supportive’ are on average more highly satisfied with their job than those considering the managerial style as ‘academic’ and ‘managerial’. Both findings hold true for academics in Germany irrespective of institutional type and the academics’ rank.

7.7 The Relative Weight of Various Factors

A multivariate analysis has been undertaken here in order to show the relative weight of the factors discussed above as well as some additional factors: what contributes to a relatively high level of overall job satisfaction of academics in Germany. As Tables 7.9 and 7.10 show, the analysis focuses on senior and junior academics at universities in Germany. The tables show that two factors play a strong role in the job satisfaction of both professors and junior academic staff at German universities: resources for academic work and management styles.

7.7.1 Resources

It is interesting to note that different aspects of resources are crucial for senior and for junior academics. Research funding and secretarial support are the most important issues for university professors in Germany. One should bear in mind that secretarial support is viewed as being a key element at German universities and professors at German universities rate secretarial support more positively than professors from other countries. Similarly, financial support for research, although certainly salient everywhere, has a high symbolic relevance: the acquisition of external research grants (usually called ‘third-party’ research funding in Germany) is often taken as the single most important measure for research quality (see Gross et al. 2008). In contrast, the item ‘research equipment and instruments’ has the strongest effect on the overall job satisfaction. In addition, office space and telecommunications are resources that have a significant effect on their satisfaction. We can argue that resources linked to research management are crucial for the satisfaction of university professors, while resources directly related to the research process are of utmost importance for the job satisfaction of junior staff.

7.7.2 Managerial Styles

As already shown above, the multivariate analysis confirms that each of the four managerial styles addressed in the CAP survey reinforces overall professional satisfaction both of senior and juniors academics in Germany. However, individual elements of these four managerial styles have a varying weight.

Senior academics at German universities are more highly satisfied if the following conditions apply:

- ‘Good communication between management and academics’
- ‘A supportive attitude of administrative staff towards teaching activities’
- Academics’ ‘Influence at the level of the department or similar unit’

Table 7.9 Factors relevant for overall job satisfaction of senior academics at German universities (multivariate analysis)

		Regression coefficient B	Stand. beta	Sig.
	(Constant)	0.826		0.005
1	Good communication between management and academics (managerial style: collegial)	0.164	0.185	0.001
2	Research funding (resources)	0.182	0.236	0.000
3	A supportive attitude of administrative staff towards teaching activities (managerial style: supportive)	0.196	0.203	0.000
4	Influence at the level of the department or similar unit (managerial style: academic)	0.111	0.111	0.022
5	Focus of interests: teaching vs. research	-0.187	-0.158	0.001
6	Percentage of time for teaching	-0.006	-0.116	0.017
7	Gender	0.250	0.106	0.019
8	Secretarial support (resources)	0.073	0.102	0.042

Source: CAP data set (May 2010)

$N=335$; $R^2=0.386$; R^2 adj. = 0.371

Regression model, method: stepwise

Dependent variable: How would you rate your overall satisfaction with your current job?

The following items were statistically excluded from the senior model: income (A12_1), disciplines (A2), age (F2), resources (B3_1-7; B3_9-11), weekly hours spent for research (B1), contract duration (A11), influence (E2_2-3), full-/part-time employment (A7) and management (E4_1, E4_3-6, E4_8-9; E5)

Table 7.10 Factors relevant for overall job satisfaction of junior academics at German universities (multivariate analysis)

		Regression coefficient B	Stand. beta	Sig.
	(Constant)	0.569		0.098
1	Research equipment and instruments (resources)	0.213	0.246	0.000
2	Collegiality in decision-making processes (managerial style: collegial)	0.143	0.165	0.001
3	Your office space (resources)	0.092	0.110	0.016
4	The administration supports academic freedom (managerial style: supportive)	0.104	0.108	0.025
5	Contract duration	0.223	0.133	0.002
6	Telecommunications (internet, networks and telephones) (resources)	0.120	0.106	0.020
7	Top-level administrators are providing competent leadership (managerial style)	0.108	0.113	0.012
8	Influence at the institutional level (managerial style: academic)	-0.186	-0.106	0.013

Source: CAP data set (May 2010)

$N=545-881$; $R^2=0.304$; R^2 adj. = 0.290

Regression model, method: stepwise

Dependent variable: How would you rate your overall satisfaction with your current job?

The following items were statistically excluded from the junior model: weekly hours spent on teaching (B1), weekly hours spent on research (B1), focus of interests (B2), management (E4_1-3, E4_5-9, E5_2-4), resources (B3_1-3, B3_5-6, B3_8, B3_10-12), full-/part-time employment (A7), income (A12_1), gender (F1), age (F2), influence (E2_1-2) and disciplines (B3_2)

Other factors come into play in contributing strongly to junior academics' job satisfaction:

- 'Collegiality in decision-making processes'.
- 'The administration supports academic freedom'.
- 'Top-level administrators are providing competent leadership'.

Other factors have a lesser weight for overall job satisfaction but still are worth mentioning. As already pointed out, junior academics at German universities are less satisfied if their employment contract is fixed-term. In contrast, such a difference cannot be established among senior academics almost by definition, because almost all university professors in Germany have a permanent employment contract. It is interesting to note in this context that full-term vs. part-time employment explains few differences in job satisfaction.

Among university professors, women express a lesser degree of satisfaction than men. This difference is independent of discipline. In contrast, job satisfaction of junior academics in Germany does not vary by gender. It cannot be established here whether the conditions vary between career stages and age or whether the new generation of academics differs from the previous ones in this respect.

The multivariate analysis reinforces the finding of the bivariate analysis that university professors in Germany putting emphasis on research are more highly satisfied than those putting emphasis on teaching. Surprisingly, though, a similar difference among junior academics according to the bivariate analysis is not confirmed in the multivariate analysis.

It is finally worth reporting that two variables, which seemed salient according to bivariate analysis, do not play any role according to the multivariate analysis: age and discipline. Obviously, these differences initially visible in the bivariate are explained by other factors.

7.8 Conclusions

German academics are not among the most highly satisfied academics in comparative perspective. However, a comparison between the Carnegie study undertaken in the early 1990s and the CAP study about the academic profession at the end of the first decade of the twenty-first century discussed here suggests that the satisfaction of the German academic profession has increased over time (see Enders and Teichler 1995a; Altbach 1996). Notably, junior academic staff who tended to have a relatively low level of satisfaction previously seemed to have become more satisfied over time.

The German academic profession certainly cannot be viewed as a relatively homogeneous profession. Senior academics are clearly more satisfied than junior academics. A further distinction is striking: academics at German public research institutions are by far more highly satisfied than academics at universities, and the latter are somewhat more highly satisfied than academics at universities of applied sciences, that is, the higher education institutions with a dominant teaching function.

As academia is generally characterised as a profession strongly shaped by intrinsic motives, it does not come as a surprise to note that employment conditions do not have a very strong influence on the overall satisfaction, even if the duration of the contract is by no means trivial for junior staff at German universities. But the working conditions are clearly more important in this respect than the employment conditions.

Among the working conditions, material and staff resources as well as the prevailing managerial styles at their institutions are obviously factors which play an important role for the overall satisfaction. This holds true both for senior academics and junior academics even though different aspects of resources and managerial styles are salient for professors on the one hand and junior academic staff on the other hand. The most surprising finding in the context is the fact that any strong managerial style reinforces job satisfaction, while any weak managerial style is associated to a relatively lower degree of job satisfaction.

Finally, we observe among German academics that the various functions of higher education are not equally appreciated. Those having a preference for research and spending a relatively high proportion of their time on research are more highly satisfied than those putting emphasis on teaching.

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Chapter 8

Factors Determining Academics' Job Satisfaction in Japan from the Perspective of Role Diversification

Akira Arimoto and Tsukasa Daizen

8.1 Introduction and the Literature

The main social functions of academia are to train human resources by way of teaching and to discover knowledge by way of research. As members of the academy, academics are expected to contribute to promoting such social functions. They should derive great deal of satisfaction in undertaking academic work, such as research, teaching, and providing community service, which is becoming increasingly important in the twenty-first century. Of course, academics' personal attributes vary greatly, including their gender, age, Ph.D. accreditation or lack thereof, the type of institution to which they belong, and their academic specialisation, so they are likely to have varying expectations about themselves.

The aim of this chapter is to see how satisfied Japanese academics are with their own academic work and to identify the factors that define the degree of such contentment.

Figure 8.1 shows a framework of research in the relationship linkage between knowledge, academic work, research, and teaching. First, knowledge is important in the sense that it is a basic component for academic work: its raw material (Clark 1983). The function of knowledge embraces the understanding of knowledge, discovery of knowledge, dissemination of knowledge, application of knowledge, and control of knowledge that can be translated into learning, research, teaching, service, and management and administration, respectively. Second, a generic term for the various activities conducted in academic organisations is 'academic work', which consists of discovery and dissemination, or research and teaching, as its two

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Figure 0 Framework of research: knowledge, academic work, and R-T-S nexus

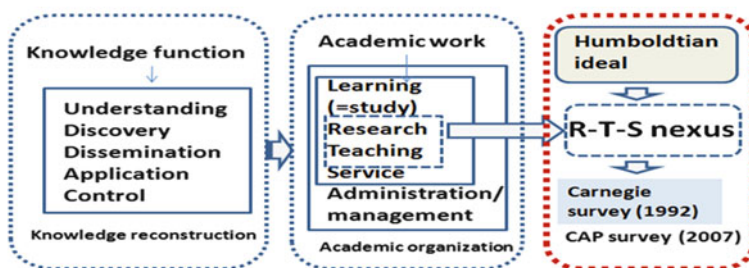


Fig. 8.1 Framework of research: knowledge, academic work, and the R-T-S nexus

main functions. Research and teaching are not necessarily compatible in spite of the Humboldtian ideal and the research–teaching–service (R-T-S) nexus model (Von Humboldt 1910; Clark 1997).

Actually, from the initial stage, when the two functions became the core of academic work in the modern university, their differentiation and fragmentation caused conflicts in terms of their compatibility. Considering this history, a systematic effort to achieve compatibility and integration throughout all the systems, institutions, and organisations will likely be necessary. The realisation of compatibility as an essential part of pursuing academic work is expected to increase academics' satisfaction with their current job.

The data used in this chapter were drawn from the *Changing Academic Profession* (CAP) project, which was conducted during 2007–2008 in 17 countries (Argentina, Australia, Brazil, Canada, China, Finland, Germany, Italy, Japan, Korea, Malaysia, Mexico, Norway, Portugal, South Africa, the UK, the USA) and the special administrative region of Hong Kong (INCHER-Kassel 2009).

Authors of several chapters in this collection have considered aspects of the literature in their country-based studies. Here listed are a few of those examined in the context of this chapter.

Several studies on the determinants of academic job satisfaction have been undertaken (Ali 2009; Hagedorn 2000; Lin and Nur-Awaleh 2005; Milosheff 1990; Seifert and Umbach 2008). Seifert and Umbert (2008), for example, analysed data collected from academics who belong to doctoral research institutions and found that women were consistently less satisfied with their work than their male colleagues and that the effect of being female varies by discipline on levels of job satisfaction. However, in other analysis, it has been found that gender did not affect academic job satisfaction. For example, Milosheff (1990) analysed the data from community college academics and found that the effects of 'gender' and 'type of degree' were not significant, even at the 0.10 confidence level.

By using a sample of 182 respondents drawn from two universities in Uganda, Ssesanga and Garrett (2005) found that age, rank, and tenure were significant predictors of academic job satisfaction.

By analysing the 1993 National Study of Postsecondary Faculty (NSOPF 1993), Hagedorn (2000) found that the most highly predictive mediators were the work

Table 8.1 Distribution of CAP respondents by gender

	Male	Female	Total
Japan	1,266	125	1,391
	91.0%	9.0%	100.0%
Total	14,214	8,918	23,132
	61.4%	38.6%	100.0%

itself, salary, relationships with administration, student quality and relationships, and institutional climate and culture. In addition, he found that job satisfaction increases with advancing life stages.

Examining factors related to work and job satisfaction, for example, Lin and Nur-Awaleh (2005) found that job autonomy was the aspect of job satisfaction most often enjoyed, while salary was the least satisfactory aspect for academic staff members.

Also, by analysing the 1993 NSOPF, Ali (2009) found various factors that had a significant factor on 'overall job satisfaction'. These included individuals' 'rank', 'tenure status', 'highest degree earned', 'gender', 'years holding current job', and 'type of institution' at which they were employed, at probability levels below 0.05. On the other hand, Ali found that the achievement variable 'recent articles in refereed journals' and recognition variable 'funded research' have no significant effect on 'overall job satisfaction'.

8.2 Profile of Academics in Japan

This section attempts to clarify the traits of Japanese academics, with a focus on their ascriptions and activities, through a comparison of them with their counterparts in the participating countries overall.

8.2.1 Gender

Table 8.1 shows that the ratio of female to all Japanese academics (9.0%) is small compared with that of academics in the participating countries of the survey (38.6%). According to national statistics, the system-wide ratio was 18.2% in 2007 when the CAP survey took place. In fact, there were 30,523 female academics out of a total of 167,636 academics permanently employed. By 2010, the ratio had increased to 20.1% (female academics=35,034, total academics=174,280) (MEXT 2010). Accordingly, the real ratio today is estimated to be more than 20% and so the ratio apparent from the CAP survey is probably lower because of sampling bias. Considering this condition, however, it is evident that the ratio of female academics

Table 8.2 Overall satisfaction with current job by gender (Japan)

		Overall satisfaction with my current job					**	**
		Very high			Very low			
		5	4	3	2	1	Total	Average
Gender	Male	146	722	229	135	25	1,257	3.66
		11.6%	57.4%	18.2%	10.7%	2.0%	100.0%	
	Female	4	72	21	18	7	122	3.39
		3.3%	59.0%	17.2%	14.8%	5.7%	100.0%	
	Total	150	794	250	153	32	1,379	3.64
		10.9%	57.6%	18.1%	11.1%	2.3%	100.0%	

** $p < 0.01$

Table 8.3 Academic staff by age

	20–29 years old	30–39 years old	40–49 years old	50–59 years old	60–69 years old	70–99 years old	Total	Average
Japan	2	161	402	452	334	9	1,360	51.7
	0.1%	11.8%	29.6%	33.2%	24.6%	0.7%	100.0%	
Total	1,365	5,788	7,341	5,674	2,319	154	22,641	45.5
	6.0%	25.6%	32.4%	25.1%	10.2%	0.7%	100.0%	

in Japan is low by international standards, since the ratio is estimated to be about 40% in the OECD countries. Of course, there has been a national movement related to the gender issue in Japan since 1998, when the *male and female partnership society* law was enacted (Naikaku 2009). Accordingly, the Association of National Universities in Japan established various plans to raise the ratio of female to male academics to at least 20% (Association of National Universities 2000).

Table 8.2 shows ‘overall satisfaction with my current job by gender’ in Japan. These data reveal the average score of all Japanese academics (3.64) and those of male (3.66) and female (3.39) academics. Since the degree of satisfaction is lower among female than male academics, one can presume that female academics are still often in the lower status positions in the academic community.

8.2.2 Age

As Table 8.3 shows, the average age of Japanese academics (51.7 years) is higher than that of academics in the participating countries (45.5 years). The ratio of academics aged more than 50 years is 58.5%, and the equivalent in the participating countries overall is 36.0%.

Table 8.4 shows ‘overall satisfaction with my current job by age’ in Japan. Given the total average score (3.65), the highest score is found among the generation of 60–69-year-olds (3.80), followed by the generations of 50–59 (3.70), 40–49 (3.53), and 30–39 (3.46). It means that with higher age comes greater job satisfaction.

Table 8.4 Overall satisfaction with my current job by age (Japan)

		Overall satisfaction with your current job					***	***
		Very high			Very low			
		5	4	3	2	1	Total	Average
Age	30–39 years	18	80	28	26	8	160	3.46
	old	11.3%	50.0%	17.5%	16.3%	5.0%	100.0%	
	40–49 years	38	208	87	58	8	399	3.53
	old	9.5%	52.1%	21.8%	14.5%	2.0%	100.0%	
	50–59 years	44	283	78	37	9	451	3.70
	old	9.8%	62.7%	17.3%	8.2%	2.0%	100.0%	
	60–69 years	45	208	46	26	4	329	3.80
	old	13.7%	63.2%	14.0%	7.9%	1.2%	100.0%	
Total		145	779	239	147	29	1339	3.65
		10.8%	58.2%	17.8%	11.0%	2.2%	100.0%	

*** $p < 0.001$ **Table 8.5** Academic staff by academic rank

	Senior position	Junior/other position	Total
Japan	1,226	179	1,405
	87.3%	12.7%	100.0%
Total	12,430	11,311	23,741
	52.4%	47.6%	100.0%

Note: In Japan, senior position includes 'Professor' and 'Associate professor'

8.2.3 Academic Rank

Table 8.5 reveals the ratio of composition by academic rank, indicating that the ratio of senior rank academics in Japan (87.3%) is higher than that in the participating countries overall (52.4%). This has a relationship with the higher average number of older academics in Japan than in the participating countries overall. In an environment where older generation academics are likely to be hired to the ranks of full professor and associate professor, the door is likely to be closed to younger generation academics (Shinbori 1965; Ushiogi 2009). Related to this custom of appointing senior academics to higher ranks is the resulting structural problem whereby younger generation academics are difficult to recruit, especially immediately after graduation from graduate school.

Table 8.6 relating to 'overall satisfaction with my current job by academic rank' in Japan indicates that in relation to the total average ratio of all ranks (3.64), the ratio of the senior ranks (3.66) is higher than that of the junior ranks (3.45). This fact correlates with the trend that academics older than 50 years have a higher ratio of satisfaction, as mentioned previously. As a result, it can be said that younger generation academics as well as those in the junior ranks have a lower degree of satisfaction with their current job. This suggests that they have complaints with regard to their research and teaching environment, including the difficulty of

Table 8.6 Overall satisfaction with current job by academic rank (Japan)

		Overall satisfaction with my current job					+	**
		Very high			Very low			
		5	4	3	2	1	Total	Average
Academic rank	Senior position	137	712	214	127	26	1,216	3.66
		11.3%	58.6%	17.6%	10.4%	2.1%	100.0%	
	Junior/other position	15	88	38	26	7	174	3.45
		8.6%	50.6%	21.8%	14.9%	4.0%	100.0%	
	Total	152	800	252	153	33	1,390	3.64
		10.9%	57.6%	18.1%	11.0%	2.4%	100.0%	

Note: + $p < 0.10$; ** $p < 0.01$

Table 8.7 Academic staff by the highest degree obtained

	Doctor	Other	Total
Japan	1,040	320	1,360
	76.5%	23.5%	100.0%
Total	12,939	10,460	23,399
	55.3%	44.7%	100.0%

embarking on an academic career, as evidenced by the incidence of unemployment experienced by postdoctoral academics and the seemingly inequitable division of labour between senior and junior academics. Japanese junior academics are usually expected to carry almost the same weight of teaching responsibilities as senior academics so that they spend too little time in research.

8.2.4 Highest Degree Obtained

Table 8.7 indicates that the ratio of the highest degree obtained in Japan (76.5%) is higher than that in other participating countries overall (55.3%). This suggests that obtaining a Ph.D. has become a kind of entry card for an academic career. This is in contrast to the situation in some countries (such as Finland), where junior academic staff are often engaged in an ‘apprenticeship’ role while they complete doctoral studies. In Japan, until 2005, there was a dual system for obtaining a doctoral degree, that is, either through coursework or through a written dissertation. In 2005, the Central Council of Education (CCE) recommended and encouraged an increased emphasis on the coursework route (CCE 2005). Recently, younger academics are increasingly recruited into academic careers after obtaining coursework-based doctoral degrees.

Table 8.8 explains ‘overall satisfaction with my current job by the highest degree obtained’ according to level of highest degree. Given the total score (3.64), the score of those holding doctorates (3.65) is higher than that of others (3.60). Doctoral degree holders have slightly higher satisfaction with their current job.

Table 8.8 Overall satisfaction with current job by the highest degree obtained (Japan)

		Overall satisfaction with my current job					n.s.	n.s.
		Very high			Very low			
		5	4	3	2	1	Total	Average
The highest degree obtained	Doctor	123 11.9%	590 57.3%	176 17.1%	119 11.6%	22 2.1%	1,030 100.0%	3.65
	Other	27 8.5%	185 58.4%	65 20.5%	30 9.5%	10 3.2%	317 100.0%	3.60
	Total	150 11.1%	775 57.5%	241 17.9%	149 11.1%	32 2.4%	1,347 100.0%	3.64

n.s. non-significant

8.2.5 Discipline of Highest Degree

According to Table 8.9, the ratio of academics who obtained their highest degrees in social sciences and natural sciences (11.1 and 15.3%) in Japan is lower than that in the participating countries overall (22.8 and 22.8%). However, the ratios in engineering, agriculture, and medical sciences in Japan (20.0, 9.5, and 18.5%) are higher than those in the participating countries overall (15.1, 3.0, and 11.1%). Accordingly, the ratio of disciplines based on the highest degree obtained in Japan differs considerably from that in the participating countries overall.

Table 8.10 compares the relationship between the disciplines in which the highest degrees were obtained and satisfaction with the current job. Compared with the total average of all disciplines (3.63), a higher average score is seen in the following disciplines: teacher training and education sciences (3.74), humanities and arts (3.71), engineering (3.66), and agriculture (3.63). On the other hand, a lower average is seen in the social sciences (3.57), other (3.57), natural sciences (3.60), and medical sciences (3.62). It is noticeable that there is little difference in terms of degree of satisfaction with current job among disciplines in the field of natural sciences, while there is great difference in the field of literary sciences. Namely, job satisfaction in both teacher training and education sciences (3.74) is high, while that in social sciences (3.57) is low. It is likely that the former has a positive relationship with both the age of older academics and the senior rank of academics, both of which have a high satisfaction ratio as already noted. On the other hand, social sciences are expected to have a negative relationship with these factors.

8.2.6 Preferences for Teaching/Research

As Table 8.11 shows, the average Japanese academic is more interested in research (71.7%) than academics in all the participating countries overall (59.0%), whereas Table 8.12 explains 'overall satisfaction with my current job by preference for teaching/research' in Japan. In relation to the average score of all academics (3.64),

Table 8.9 Discipline with highest degree

	Humanities	Social sciences	Natural sciences	Engineering	Agriculture	Medical sciences	Teacher training and education science	Other	Total
Japan	152 11.0%	153 11.1%	212 15.3%	277 20.0%	131 9.5%	256 18.5%	79 5.7%	122 8.8%	1,382 100.0%
Total	3,221 13.9%	5,261 22.8%	5,258 22.8%	3,483 15.1%	699 3.0%	2,575 11.1%	1,765 7.6%	834 3.6%	23,096 100.0%

Note: Social sciences includes 'social and behavioural sciences', 'business and administration, economics' and 'law'. Natural science includes 'life sciences' and 'physical sciences, mathematics, computer sciences'.

Table 8.10 Overall satisfaction with current job by discipline according to the discipline in which the highest degree was obtained (Japan)

		Overall satisfaction with my current job					n.s.	n.s.
		Very high			Very low		Total	Average
		5	4	3	2	1		
Discipline of highest degree	Humanities and arts	17 11.3%	88 58.7%	35 23.3%	5 3.3%	5 3.3%	150 100.0%	3.71
	Social sciences	16 10.5%	85 55.6%	29 19.0%	16 10.5%	7 4.6%	153 100.0%	3.57
	Natural sciences	26 12.4%	112 53.6%	35 16.7%	34 16.3%	2 1.0%	209 100.0%	3.60
	Engineering	31 11.2%	166 60.1%	38 13.8%	36 13.0%	5 1.8%	276 100.0%	3.66
	Agriculture	16 12.3%	70 53.8%	29 22.3%	10 7.7%	5 3.8%	130 100.0%	3.63
	Medical sciences	24 9.6%	144 57.6%	49 19.6%	28 11.2%	5 2.0%	250 100.0%	3.62
	Teacher training and education science	8 10.4%	51 66.2%	10 13.0%	6 7.8%	2 2.6%	77 100.0%	3.74
	Other	10 8.5%	68 57.6%	21 17.8%	17 14.4%	2 1.7%	118 100.0%	3.57
	Total	148 10.9%	784 57.5%	246 18.0%	152 11.2%	33 2.4%	1,363 100.0%	3.63

n.s. non-significant

Table 8.11 Academic staff by preference for teaching or research

	Primarily in teaching	In both, but leaning towards teaching	In both, but leaning towards research	Primarily in research	Total
Japan	76 5.5%	316 22.8%	792 57.3%	199 14.4%	1,383 100.0%
Total	2,288 10.1%	7,033 30.9%	10,413 45.8%	3,005 13.2%	22,739 100.0%

the score of 'in both, but leaning towards teaching' (3.69) is the largest, and the score of 'in both, but leaning to research' is second largest. Research orientation is higher ($3.63 + 3.61 \div 2 = 3.62$) in comparison with teaching orientation ($3.48 + 3.69 \div 2 = 3.58$). This suggests that satisfaction is higher among those with a research orientation than among those with teaching orientation.

Three types of academic were identified in the 1992 Carnegie survey on the academic profession conducted: the German type with a research orientation, the Anglo-Saxon type with a half and half orientation to research and teaching, and the Latin American type with a teaching orientation. Among these types, Japanese academics were classified as being of the German type, as were those from the

Table 8.12 Overall satisfaction with my current job as measured by preference for teaching or research (Japan)

Preferences for teaching/research	Overall satisfaction with my current job						Total	Average	n.s.						
	Very high									Very low					
	5	4	3	2	1	1				2	3	4	5	Total	Average
Primarily in teaching	9	38	10	16	2	2	12.0%	50.7%	13.3%	21.3%	2.7%	75	3.48	n.s.	
In both, but leaning towards teaching	32	191	57	28	5	5	10.2%	61.0%	18.2%	8.9%	1.6%	313	3.69		
In both, but leaning towards research	80	463	144	82	20	20	10.1%	58.7%	18.3%	10.4%	2.5%	789	3.63		
Primarily in research	30	97	36	26	6	6	15.4%	49.7%	18.5%	13.3%	3.1%	195	3.61		
Total	151	789	247	152	33	33	11.0%	57.5%	18.0%	11.1%	2.4%	1,372	3.64		

n.s. non-significant

Table 8.13 Hours spent on research activities during teaching sessions

	Average	Standard deviation
Japan	17.6 (6)	12.7
Total	15.4	11.9

Note: The number in parentheses is the order with size

Table 8.14 Proportion of instruction time spent on undergraduate programmes

	Average	Standard deviation
Japan	73.5 (6)	24.2
Total	67.3	34.3

Note: The number in parentheses is the order with size

Netherlands, Germany, Sweden, and Korea (Arimoto and Ehara 1996). In this context, it is understandable that a research orientation is more often related to satisfaction with the current job than is a teaching orientation.

8.2.7 Hours Spent on Research Activities During Teaching Sessions

Table 8.13 shows the average number of hours spent on research activities during teaching sessions. The average number of hours spent on research activities in Japan (17.6) is 2 h more than those in the participating countries overall (15.4). However, it is true to say that Japanese academics' average time spent on research had decreased in 2007 compared with the situation in 1992 so that many academics have complained about it (Arimoto 2008).

8.2.8 Proportion of Instruction Time Spent on Undergraduate Programmes

Table 8.14 shows the proportion of instruction time spent on undergraduate programmes. The average proportion in Japan (73.5%) is longer by 6.2 percentage points than that in the participating countries overall (67.3%).

8.2.9 The Total Score for Research Work

Table 8.15 compares the total score of the research work, or 'research productivity', of academics from Japan and the participating countries overall. The average score of research productivity in Japan (24.3) is higher than that in the participating countries

Table 8.15 The total score for research work

	Average	Standard deviation	Coefficient of variation
	(A)	(B)	(C)=(B)/(A)
Japan	24.3 (2)	27.2 (1)	1.12 (5)
Total	17.7	19.2	1.08

Note: The number in parentheses is the order with size

Table 8.16 The correlation between selected variables and overall satisfaction with current job

	Annual gross income (means of US\$)	Hours spent on research activities in session	Percent of undergraduate instruction time	*** The total score of the research work
How would you rate your overall satisfaction with your current job?	0.141***	0.143***	-0.102***	0.101***

*** $p < 0.001$

overall (17.7). Academic productivity, especially research productivity, is high in several countries. In descending order, it is Korea, Japan, Hong Kong, Italy, Germany, Portugal, and China (Daizen 2011).

Table 8.16 examines the correlation between variables such as time spent on research and teaching and overall satisfaction with current job. A high ratio of satisfaction is seen in regard to research time, annual gross income, and teaching time, in that order. It is interesting to note that an increase in teaching time has a high correlation with a decrease of overall satisfaction with the current job. In the twenty-first century, when universalisation is being heavily promoted, the progressive development of both quantitative and qualitative enhancement of teaching should be expected. In this context, the recent trend of academics' declining satisfaction with their current job seems to signify less satisfaction with their teaching commitments. In addition, the degree of such satisfaction is likely to be decreasing because of decreasing research time along with increasing teaching time.

8.2.10 Working Conditions in Higher Education

Table 8.17 compares the working conditions in higher education between Japan and the participating countries overall. The response 'very much improved' with regard to the working conditions in higher education in Japan (1+2=63.5%) is much higher than that in the participating countries overall (36.5%).

Table 8.18 explains 'overall satisfaction with my current job by working conditions in higher education' in Japan. In relation to the total average for working conditions (3.64), the individual average ranges from the top score of 'very much improved 5'

Table 8.17 Working conditions in higher education

	Very much improved				Very much deteriorated	
	1	2	3	4	5	Total
Japan	340 24.5%	541 39.0%	323 23.3%	163 11.7%	21 1.5%	1,388 100.0%
Total	2,929 12.7%	5,478 23.8%	6,983 30.3%	5,463 23.7%	2,167 9.4%	23,020 100.0%

Table 8.18 Overall satisfaction with current job as measured by working conditions in higher education (Japan)

		Overall satisfaction with my current job						***	***	
		Very high			Very low					
		5	4	3	2	1	Total	Average		
Working conditions in higher education	Very much improved	5	14	7	0	0	0	21	4.67	
			66.7%	33.3%	0.0%	0.0%	0.0%	100.0%		
		4	29	117	10	6	1	163	4.02	
			17.8%	71.8%	6.1%	3.7%	0.6%	100.0%		
		3	37	209	63	13	1	323	3.83	
		11.5%	64.7%	19.5%	4.0%	0.3%	100.0%			
		2	42	327	103	66	3	541	3.63	
		7.8%	60.4%	19.0%	12.2%	0.6%	100.0%			
		Very much deteriorated	1	30	141	74	67	28	340	3.23
			8.8%	41.5%	21.8%	19.7%	8.2%	100.0%		
	Total	152	801	250	152	33	1388	3.64		
		11.0%	57.7%	18.0%	11.0%	2.4%	100.0%			

*** $p < 0.001$

(4.67) to the lowest of 'very much deteriorated 1' (3.23). There is an indication that better working conditions mean better satisfaction with the current job.

8.2.11 Assessment of Institution's Support for Own Work

Table 8.19 explains the academics' assessment of their institutions' support for academic work. In comparing the average score of 12 items in Japan compared with the total of all the participating counties, Japanese academics rated higher only in regard to the item *research funding*, which is ranked 6th overall. Among the other scores, the highest ranking for Japan is 11th and the lowest is 16th. Therefore, these results show that working conditions in Japan are not good in spite of its high GDP. In this context, the ratio of national government expenditure on higher education to

Table 8.19 Assessment of institutional support for academics' work (arithmetic mean)

	Classrooms	Technology for teaching	Laboratories	Research equipment and instruments	Computer facilities	Library facilities and services
Japan	3.18 (14)	3.14 (14)	2.89 (15)	2.99 (11)	3.28 (16)	3.21 (15)
Total	3.41	3.39	3.10	3.03	3.47	3.50
	Your office space	Secretarial support	Telecommunications (Internet, networks, and telephones)	Teaching support staff	Research support staff	Research funding
Japan	3.14 (14)	2.52 (16)	3.58 (11)	2.40 (15)	2.25 (15)	2.56 (6)
Total	3.30	2.84	3.64	2.75	2.54	2.39

Note: Scale of answers is from 5 = Excellent to 1 = Poor
 The number in parentheses is the other with zero

Table 8.20 Academic staff: 'teaching and research are hardly compatible with each other'

	Strongly agree				Strongly disagree	Total	Average
	5	4	3	2	1		
Japan	274 20.1%	419 30.7%	277 20.3%	277 20.3%	116 8.5%	1,363 100.0%	3.34
Total	2,204 9.6%	3,628 15.8%	4,766 20.7%	5,647 24.5%	6,786 29.5%	23,031 100.0%	2.51

GDP is only 0.5%, which is much lower when compared with the average ratio of 1.0% in OECD countries. The national government should pay attention to this fact with a view to improving institutions' support for academics' work so as to attain international standards (Arimoto 2008, 2010a).

8.2.12 *Compatibility Between Research and Teaching*

Table 8.20 compares compatibility between research and teaching by the question 'teaching and research are hardly compatible with each other'. The average score of difficult compatibility (hardly compatible) in Japan (3.34) is higher than that in the participating countries overall (2.51). This means that it is difficult for Japanese academics to realise compatibility between research and teaching. In fact, the relevant score is the highest of all the participating countries.

Table 8.21 explains 'overall satisfaction with my current job as measured by compatibility with teaching and research' in Japan. Given the total average score (3.64), 'strongly disagree 1' (4.06) means the highest satisfaction, whereas 'strongly agree 5' (3.32) means the lowest satisfaction. If academics who are positive with regard to compatibility have a high ratio of satisfaction with their current job, Japanese academics' satisfaction is thought to be lower owing to their low ratio of compatibility. The question here is why it is so low. Difficult compatibility may be due to the traditional research orientation as well as mental conflicts experienced by academics in the light of a recent national higher education policy emphasising teaching orientation (Arimoto 2010b).

8.2.13 *Own Influence at the Department Level or Similar Unit*

Table 8.22 shows the distribution of Japanese academics in response to the question about '...your influence at the department level or similar unit'. The average score of such influence in Japan (1+2=45.3%) is smaller than that in the participating countries overall (47.6%), but even so the differences are quite small. As a result, it is true to say that the influence at the department level or similar unit is not that

Table 8.21 Overall satisfaction with my current job by compatibility with teaching and research (Japan)

		Overall satisfaction with my current job					***	***	
		Very high		Very low					
		5	4	3	2	1	Total	Average	
Teaching and research are hardly compatible with each other	Strongly agree	5	23	124	61	50	16	274	3.32
			8.4%	45.3%	22.3%	18.2%	5.8%	100.0%	
	are hardly compatible with each other	4	24	245	91	51	8	419	3.54
			5.7%	58.5%	21.7%	12.2%	1.9%	100.0%	
		3	19	174	54	27	3	277	3.65
			6.9%	62.8%	19.5%	9.7%	1.1%	100.0%	
		2	48	182	30	17	0	277	3.94
			17.3%	65.7%	10.8%	6.1%	0.0%	100.0%	
	Strongly disagree	1	37	62	8	5	4	116	4.06
			31.9%	53.4%	6.9%	4.3%	3.4%	100.0%	
Total		151	787	244	150	31	1363	3.64	
		11.1%	57.7%	17.9%	11.0%	2.3%	100.0%		

*** $p < 0.001$

Table 8.22 Academic staff: 'your influence at the department or similar unit level'

	Very influential	Somewhat influential	A little influential	Not at all influential	Total
	1	2	3	4	
Japan	192	393	605	102	1,292
	14.9%	30.4%	46.8%	7.9%	100.0%
Total	3,832	6,136	7,653	3,343	20,964
	18.3%	29.3%	36.5%	15.9%	100.0%

great, even though it is high. It is clearly evident that there is a correlation: higher influence means higher satisfaction.

Table 8.23 explains the relationship between 'overall satisfaction with my current job' and 'my influence at the department level or similar unit' in Japan. Given the total average score of influence (3.64), the individual average score for influence ranges from the highest of 'very influential' (3.95) to the lowest of 'not at all influential' (3.33). It is true to say that the academics who have high influence at the department level experience high satisfaction with their current job.

8.2.14 Administration Supports Academic Freedom

Table 8.24 shows the scores for 'the administration supports academic freedom' in Japan and the participating countries overall. The average score for Japan (3.57) is slightly higher than that for the participating countries overall (3.37). In the case of

Table 8.23 Overall satisfaction with my current job as measured by my influence at the level of the department or similar unit (Japan)

Your influence in shaping key academic policies at the department level or similar unit	Overall satisfaction with my current job					Total	Average	
	Very high							Very low
	5	4	3	2	1			
Very influential	24 23.8%	56 55.4%	14 13.9%	6 5.9%	1 1.0%	101 100.0%	3.95	
Somewhat influential	72 12.0%	375 62.4%	88 14.6%	56 9.3%	10 1.7%	601 100.0%	3.74	
A little influential	30 7.7%	222 56.8%	81 20.7%	47 12.0%	11 2.8%	391 100.0%	3.54	
Not at all influential	15 7.9%	84 44.4%	48 25.4%	33 17.5%	9 4.8%	189 100.0%	3.33	
Total	141 11.0%	737 57.5%	231 18.0%	142 11.1%	31 2.4%	1282 100.0%	3.64	

****p* < 0.001

Table 8.24 The administration supports academic freedom

	Strongly agree				Strongly disagree	Total	Average
	5	4	3	2	1		
Japan	58 4.2%	86 6.3%	456 33.4%	552 40.4%	214 15.7%	1,366 100.0%	3.57
Total	1,737 7.9%	2,698 12.3%	6,864 31.3%	7,079 32.3%	3,570 16.3%	21,948 100.0%	3.37

Table 8.25 Overall satisfaction with current job, by opinion of the administration’s support of academic freedom (Japan)

		Overall satisfaction with my current job						Total	Average
		Very high			Very low				
		5	4	3	2	1			
The administration supports academic freedom	Strongly agree	5	54 25.5%	116 54.7%	25 11.8%	16 7.5%	1 0.5%	212 100.0%	3.97
		4	57 10.4%	349 63.8%	83 15.2%	51 9.3%	7 1.3%	547 100.0%	3.73
		3	31 6.8%	251 55.3%	102 22.5%	55 12.1%	15 3.3%	454 100.0%	3.50
	Strongly disagree	2	3 3.5%	45 52.3%	21 24.4%	14 16.3%	3 3.5%	86 100.0%	3.36
		1	5 8.6%	19 32.8%	14 24.1%	13 22.4%	7 12.1%	58 100.0%	3.03
		Total	150 11.1%	780 57.5%	245 18.1%	149 11.0%	33 2.4%	1357 100.0%	3.64

*** $p < 0.001$

‘strongly agree’ (5+4), the average score is generally higher among the participating countries overall (20.2%) when compared with Japan (10.5%), but neither of these is a particularly strong result. In fact, the score is particularly low for Japan. As a result, academics are not likely to think that the administration supports academic freedom.

Table 8.25 explains ‘overall satisfaction with my current job as measured by the administration’s support of academic freedom’ in Japan. Given the average score of ‘the administration supports academic freedom’ (3.64), the individual score for ‘overall satisfaction with my current job’ ranges from the highest of ‘strongly agree 5’ (3.97) to the lowest of ‘strongly disagree 1’ (3.03). There is an indication that higher academic freedom equates to higher overall satisfaction. According to this result, overall job satisfaction in Japan is considered to be decreasing because the extent to which ‘the administration supports academic freedom’ in Japan is decreasing as Table 8.25 explains.

8.3 Summary of Findings

Regarding the profile of Japanese academics, there are some traits peculiar to them in comparison with their counterparts in the countries participating in the CAP survey as follows:

1. The ratio of female academics (9.0%) to all Japanese academics is much lower than in all the countries participating countries in the CAP survey (38.6%). The degree of satisfaction with the current job is lower among female than among male academics in Japan.
2. There is a trend among Japanese academics that satisfaction with the current job increases with age. Respondents indicated that younger generation academics as well as those in the junior ranks have a low degree of satisfaction with the current job.
3. The average age of Japanese academics (51.7 years) is higher than that of all academics in other participating countries (45.5 years).
4. Doctoral degree holders have slightly higher satisfaction with their current job.
5. The ratio of disciplines with the highest degree in Japan is different from that in the participating countries. It is noticeable that there is little difference in terms of degree of satisfaction with the current job among disciplines in the field of natural sciences, while there is significant difference in the field of literary sciences.
6. Related to the custom of hiring senior academics to fill most of the higher posts is the structural problem of recruitment difficulties in regard to academics from the younger generation, especially immediately after graduation from graduate school.
7. The ratio of the highest degree obtained in Japan (76.5%) is higher than that in the participating countries (55.3%). Japanese academic careers rarely start before they have completed a doctorate.
8. The ratio of research orientation is higher than teaching orientation in Japan, more than in the participating countries overall. Satisfaction with the current job is higher for academics with a research orientation than in teaching orientation. Three types of academic were identified in the Carnegie survey on the academic profession conducted in 1992: the German type with a research orientation, the Anglo-Saxon type with a half and half orientation to research and teaching, and the Latin American type with a teaching orientation. Among these types, Japan was classified as being in the German mould. In this context, it is understandable that research orientation is linked to satisfaction with the current job more than teaching orientation is.
9. The average number of hours spent on research activities during teaching periods in Japan (17.6) is 2 h longer than the period spent in other participating countries (15.4). The average proportion of instruction time spent on undergraduate programmes in Japan (73.5%) is longer than in the participating countries overall (67.3%).

10. The average score of research productivity in Japan (24.3) is higher than that for the participating countries overall (17.7).
11. It is interesting to notice that an increase of teaching time has a high correlation with a decrease of overall satisfaction with the current job.
12. The ratio 'very much improved' with regard to the working conditions in higher education in Japan (63.5%) is much higher than that in the participating countries (36.5%) overall.
13. There is an indication that the better working conditions are, the higher is satisfaction with the current job. However, working conditions are not good in Japan.
14. It is difficult for Japanese academics to achieve compatibility between research and teaching.
15. Given that the academics who are positive about the compatibility of research and teaching have a high ratio of satisfaction with the current job, Japanese academics' satisfaction is thought to be lower owing to their low ratio of compatibility.
16. The influence at the department level or similar unit is not that great among Japanese academics. It is true to say that academics having high influence at the department level are apt to have high satisfaction with the current job.
17. Japanese academics are not likely to think that the administration supports academic freedom. Overall satisfaction with the job in Japan is considered to be decreasing because the extent to which 'the administration supports academic freedom' in Japan is decreasing.

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Chapter 9

An Academic Life in Malaysia: A Wonderful Life or Satisfaction *Not* Guaranteed?

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9.1 Introduction

In the quest to become a developed nation by the year 2020, the Malaysian government recognises that substantial effort must be made to develop human capital to enhance the country's competitiveness, productivity and capacity to innovate. The success of the human capital development agenda rests in large part on the quality of the higher education system. Therefore, soon after the establishment of the Ministry of Higher Education in 2004, the government spearheaded an effort in 2007 to transform the higher education system. As a result, the *National Higher Education Strategic Plan 2020* was launched with the aim of transforming and propelling higher education to a new level of excellence.

The strategic plan was formulated with several phases of implementation until 2020. The plan is both broad and comprehensive in its coverage of higher education and covers the longer term, encompassing new initiatives and enhancing existing programmes. The seven broad-based strategic thrusts of the strategic plan are as follows: (1) widening access and enhancing equity, (2) improving the quality of teaching and learning, (3) enhancing research and innovation, (4) strengthening institutions of higher education, (5) intensifying internationalisation, (6) enculturation of lifelong learning and (7) reinforcing the higher education ministry's delivery system (MoHE 2007a).

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The first phase of the implementation – Laying the Foundation, which started in 2007 and has ended – aimed to lay a strong foundation in order to pave the way for phase 2 of the strategic plan. The *National Higher Education Action Plan 2007–2010* (MoHE 2007b) stresses the importance of human capital development and focuses on the immediate agendas necessary to get the transformation underway. It outlines strategies for immediate implementation within the period of the Ninth Malaysia Plan (9MP). The strategies adopted are intended to strengthen the five core institutional pillars of higher educational institutions, namely, governance, leadership, academia, teaching and learning and research and development. In tandem with this, 21 Critical Agenda Projects were created and designed to anchor and effect change within the national higher education system. Phase two of the implementation plan was launched in early 2011, and it will continue with its agenda to strengthen its base and consolidate effective strategies to ensure its achievement. Apart from strengthening efforts at the national level, an additional policy document called PSPTN2 Malaysia's Global Reach: A New Dimension has been prepared to fulfil current and future demands in Malaysia's efforts to compete globally (Ministry of Higher Education 2011). In short, the policy document encapsulates the rationale, strategy and action plan that can be used as a guide to develop the internationalisation initiatives agenda to the regional and global level.

During the 4-year period of the first phase of the implementation plan, many reforms were introduced. The reforms have had radical implications for all aspects of the professional lives of university academics: their teaching activities, research, community service, administrative activities, relations with institutional governance, physical facilities and remuneration. Many of these changes have transformed the norms and rules regulating the academic profession. In particular, the transformation plan brought significant changes to the management and governance of universities. Malaysian universities are now expected to adopt the new public management approach in transforming the universities into corporate enterprises, entrepreneurial universities and world-class universities.

The terms 'decentralisation' and 'deregulation' have therefore become common, especially when the governance model of universities is now oriented towards new management strategies, along the lines of new managerialism (Mok 2003). The changes affect and influence all aspects of the Malaysian higher education work environment including the academic activities and job satisfaction of academics. Particular concerns have been raised regarding the consequences of managerialism on the concepts of autonomy and professionalism and the negative impact on individual academic practices. Malaysian universities are increasingly emphasising control of academic work, which is indicative of a 'low-trust' management style, as contrasted to a collegial, 'high-trust' management style (Anderson 2006). The replacement of the collegial model with managerialism has an important impact on the concepts of autonomy and professionalism and on the academic profession as a whole.

The changes that have occurred in Malaysian higher education institutions brought about by the transformation plan have contributed to high levels of work stress among academic staff members, impacting on job satisfaction, job involvement

and job engagement (Fauziah Nordin 2009; Rohana et al. 2010). Owing to these changes, academics attached to higher education institutions are being confronted with specific career obstacles that have a negative impact on their job satisfaction and productivity such as work overload (Chen et al. 2006; Oshagbemi 2000). These changes affect and influence almost all aspects of higher education work environments, including the careers and job satisfaction of academics.

Job satisfaction is defined as the extent to which an individual is content or even pleased with his or her work. It is a gauge of the extent to which a person likes his or her job. It is seen as the perception a person has of his or her desired outcomes compared with actual outcomes in a work context, or the degree to which the individual's expectations have been met over time (Fields 2002). In higher education, job satisfaction is an important gauge. Consideration of the factors that affect job satisfaction of academics is critical to help retain quality faculty members. High job satisfaction levels can enhance growth and success. Huston et al. (2007) describe three potential negative impacts from having dissatisfied academic staff. First, these individuals often withdraw from the community and refrain from collaborating with colleagues. Second, they can disengage from the decision-making processes of the institution, making shared governance impossible. Finally, they frequently avoid mentoring junior colleagues, contributing to potential dissatisfaction in the ranks of less-experienced faculty members.

Factors that affect the job satisfaction levels of academics in higher education institutions include work overload (Monnapula-Mapesela 2002), role conflict (Miller 2003), lack of autonomy (Enders 2006), insufficient support for teaching and research (Nelson and Burke 2000), discrimination in terms of race and gender (Barkhuizen et al. 2004), poor communication (Ball 2004) and management style (Barkhuizen et al. 2004). Generally, studies have found variations in the job satisfaction levels of academics, depending on the individual and the context in which the individual lives and works (Fauziah Nordin 2009; Lacy and Sheehan 1997).

This chapter examines a set of available data to investigate whether the academic profession is still considered attractive by looking at the satisfaction level of academics in Malaysian universities. The 2007 study entitled 'The Changing Academic Profession' (CAP) is the data source for this chapter. The project has well-documented methodologies that have been published in various reports and other publications. This chapter presents selected data available from the international survey to explore aspects of academic job satisfaction and compares them by gender and teaching or research orientation.

9.2 The Malaysian Academic Profession

A total of 1,226 academics completed the CAP survey that provided the basis for the data analysis discussed in this chapter. Male academics were 51.7% of the sample population and 48.3% were female. The samples of the study came from various disciplines: teacher training and education science (6.1%); humanities and arts (5.5%);

Table 9.1 Distribution of time spent on professional activities per week

% of academics who rated 'very much improved' and 'improved'			
Hours per week spent on	10 h and less	11–40 h	41 h and above
Teaching (%)	30.8	65.4	3.8
Research (%)	81.9	17.6	0.5
Service (%)	96.0	3.8	0.0
Administration (%)	84.40	15.30	0.30
Other academic activities (%)	98.3	1.5	0.2

social and behavioural sciences (5.1%); business administration and economics (11.5%); law (2.1%); life sciences (6.4%); physical sciences, mathematics and computer science (15.3%); engineering, manufacturing and construction and architecture (26.9%); agriculture (1.0%); medical science, health-related sciences and social services (10.0%); personal services, transport services and security services (0.3%) and others (9.7%). The majority of the respondents worked in public universities (65.5%), 14.3% worked in private universities, 7.6% worked in public university college, 10.1% worked in private university college, 0.8% worked in private colleges and 1.7% worked in others. More than half of the respondents were lecturers (58.1%), while the others were associate professors (16.7%), professors (7.2%), assistant professors (0.2%), senior lecturers (17.6%) and others (0.2%).

Most of the academics who participated in the CAP survey spent between 11 and 40 h a week teaching (65.4%) (see Table 9.1). A higher proportion of academics also reported spending up to 10 h on research (81.9%), service (96.0%) and administrative activities (84.4%). This confirms that academics in Malaysia engage in a range of academic activities. This also shows that teaching is the dominant function of academics in Malaysian universities followed by service, administration and research.

9.3 Overall Job Satisfaction

The research on job satisfaction in the academic environment has shown gender to be an important variable in assessing the overall satisfaction of university employees (Owens 2008). Table 9.2 shows that a significantly higher proportion of male academics were more satisfied with their current job (69.6%) compared to their female colleagues (59.8%) although more than 50% of both male and female academics indicated that they were satisfied or highly satisfied with their job.

The results in Table 9.2 also show that more than 50% of male and female respondents felt that the working conditions in higher education had very much improved/improved since they started their careers. However, a higher percentage of male academics (58.8%) than female academics (52.9%) indicated that working conditions had very much improved or improved. The situation seems quite critical for female academics as less than 50% indicated that working conditions in research institutes had improved.

Table 9.2 Rating of job satisfaction by gender – proportion satisfied or highly satisfied with their job

	Male	Female
How would you rate your overall satisfaction with your current job?	69.6	59.8
How would you rate working conditions in higher education?	58.8	52.9
How would you rate working conditions in research institutes	50.4	47.4

Table 9.3 Rating of job satisfaction by teaching and research

	% of academics who rated ‘very high’ and ‘high’			
	Primarily in teaching	In both, but leaning towards teaching	In both, but leaning towards research	Primarily in research
How would you rate your overall satisfaction with your current job?	67.0	66.9	64.7	52.9

The satisfaction level averaged to the mean value of 2.66, which falls into the upper half of the satisfaction scale. This implies that academics tend to be generally satisfied with their current job. Correlation analyses were done on overall job satisfaction with teaching load, research load, administration load and academic service load, respectively. The Spearman’s test results showed that there were no significant correlations between job satisfaction and any of the independent variables. When academic perception was analysed according to rank, Chi-squared analysis showed that the difference was significant (sig. =0.01). This suggests that the higher the academic rank, the higher the perception of job satisfaction.

Academics were also differentiated in terms of their main activities, particularly those involved principally in teaching and those involved principally in research.

Job satisfaction levels were also examined according to the academics’ preference for teaching or research (Table 9.3). A higher proportion of the academics who preferred teaching indicated a high level of satisfaction (67.0%) with their current job, while 66.9% of academics whose preference was in both but leaned towards teaching responded either very satisfied or satisfied overall with their job. Perceived level of satisfaction was lowest among those who were primarily involved in research (52.9%), while academics who preferred both but leaned towards research (64.7%) responded that they were either very highly satisfied or highly satisfied overall with their job. Teaching-oriented academics are actually more satisfied with their job perhaps because they view teaching as an intrinsically motivated activity and something they really enjoy doing. Low rating of satisfaction among the academics whose interest was primarily in research could be due to the fact that research facilities in the universities such as research equipment, research funding and research support staff are inadequate.

Table 9.4 Rating of work conditions by teaching and research

	% of academics who rated 'very much improved' and 'improved'			
	Primarily in teaching	In both, but leaning towards teaching	In both, but leaning towards research	Primarily in research
Working conditions in higher education	50.0	61.5	54.4	48.5
Working conditions in research institutes	36.8	49.8	49.0	58.1

As shown in Table 9.4, 61.5% of the academics whose preference was in both teaching and research, but leaned towards teaching, rated the working conditions in higher education 'very much improved' and 'improved'. However, only 50% of the academics with a preference for teaching gave the same rating. The lowest percentage of respondents who reported that the work conditions had improved significantly is the group that was mainly involved in research (48.5%).

When the respondents were asked to evaluate the working conditions in research institutes, those whose preference was for research constituted the highest percentage that rated very much improved/improved (58.1%). Those whose primary interest was in teaching made up the lowest percentage in giving the same rating (36.8%).

9.4 Level of Satisfaction with Physical Infrastructure and Support Services

The condition of the working environment constitutes an important factor influencing the way academics perceive their job satisfaction. Institutions provide support to academics in a variety of ways including physical infrastructure, technology support, classroom support and teaching and research services (Table 9.5).

Three statements addressing the level of satisfaction with physical infrastructure were asked in the survey. Interestingly, the male academics rated higher satisfaction with the physical infrastructure as compared with the female academics. Both male and female academics were more satisfied with the telecommunication facilities out of all the infrastructure resources for academic work.

Both male and female academics showed rather low percentages (less than 30%) in rating their evaluation of secretarial support, teaching support and research support as 'excellent' or 'good'. There is however a relatively large discrepancy of opinion (10 percentage points) between male and female academics in evaluating technology for teaching. More male (50.4%) than female (42.2%) academics reported satisfaction with technology for teaching.

Academics also rated their level of satisfaction on a number of teaching support variables, namely, classroom, technology for teaching, teaching support staff, laboratories and library facilities (Table 9.6). Generally, a higher proportion of male academics were more satisfied than female academics on aspects of teaching-related

Table 9.5 Rating of physical infrastructure and service provision by gender

	% of academics who rated 'excellent' and 'good'	
	Male	Female
<i>Physical infrastructure</i>		
Classroom	48.9	38.0
Computing facilities	58.3	51.1
Office space	48.0	47.3
Telecommunications	55.5	55.5
<i>Service provision</i>		
Technology for teaching	50.4	42.2
Secretarial support	23.7	24.6
Teaching support	29.0	29.7
Research support	22.9	19.0

Table 9.6 Rating of teaching-related services by gender

	% of academics who rated 'excellent' and 'good'	
	Male	Female
<i>Teaching related</i>		
Classroom	48.9	38.0
Technology for teaching	50.4	42.2
Teaching support staff	29.0	29.7
Laboratories	42.1	35.0
Library facilities	51.8	48.1

Table 9.7 Ratings of research-related services by gender

	% of academics who rated 'excellent' and 'good'	
	Male	Female
<i>Research related</i>		
Research equipment	27.5	23.9
Research support staff	22.9	19.0
Research funding	24.9	27.2

services. Both male and female academics, however, were most satisfied with library facilities (51.8 and 48.1%, respectively). This was followed by technology for teaching (50.4 and 42.2%, respectively) and facilities in the classroom (48.9 and 38.0%).

Satisfaction with research-related services was another area of interest. Results indicated that Malaysian academics gave consistently low ratings for all aspects of research-related facilities (Table 9.7). A higher percentage of male academics expressed satisfaction with research equipment (27.5%) and research support staff (22.9%) compared to female lecturers (23.9 and 19.0%, respectively). On the other hand, a higher percentage of female academics rated research funding as being 'good' or 'excellent'.

Ratings for physical infrastructure and service provisions are summarised in Table 9.8. Generally, classroom and computing facilities were rated as good/excellent by a higher proportion of respondents whose primary interest was in research than by those whose interest was in teaching. However, a lower percentage of faculty

Table 9.8 Rating of physical infrastructure and service provision by teaching or research orientation

	% of academics who rated 'excellent' and 'good'			
	Primarily in teaching	In both, but leaning towards teaching	In both, but leaning towards research	Primarily in research
Classroom	41.1	46.3	41.4	50.0
Technology for teaching	42.3	46.4	47.0	50.0
Teaching support staff	37.9	31.0	26.4	22.9
Laboratories	45.6	42.4	34.3	40.0
Library facilities	50.5	54.1	46.5	42.3
Office space	50.0	50.9	45.9	36.5
Secretarial support	29.2	26.1	22.9	9.1
Research support	27.0	21.7	19.8	20.4

Table 9.9 Rating of teaching-related services by teaching or research orientation

Teaching related	% of academics who rated 'excellent' and 'good'			
	Primarily in teaching	In both, but leaning towards teaching	In both, but leaning towards research	Primarily in research
Classroom	41.1	46.3	41.4	50.0
Technology for teaching	42.3	46.4	47.0	50.0
Teaching support staff	37.9	31.0	26.4	22.9
Laboratories	45.6	42.4	34.3	40.0
Library facilities	50.5	54.1	46.5	42.3

whose primary interest was in research reported satisfaction with office space (36.5%) as compared to those whose preference was for teaching (50%). In terms of secretarial support, the lowest percentage for excellent or good ratings was given by academics whose preference was mainly in research (9.1%).

Table 9.9 considers academics' rating of teaching-related services according to their orientation towards teaching or research. In general, low proportions of academics rated teaching support staff and laboratory facilities as excellent or good. In the evaluation of technology for teaching, a higher percentage of those who were mainly involved in research (50.0%) expressed satisfaction as compared to those who were mainly involved in teaching (42.3%).

The evaluation of the three types of research facilities seems to be consistently low as fewer than 35% of the respondents rated the facilities 'excellent' or 'good' (Table 9.10). In particular, the lowest percentage of excellent/good rating for research support staff was given by those primarily in research and those with a leaning towards research. It is evident that regardless of academic function, the Malaysian academics surveyed perceived research support facilities to be less than satisfactory. While teaching support services were viewed as moderately good, research support services were regarded as poor.

Table 9.10 Rating of research-related services by teaching or research orientation

Research-related services	% of academics who rated 'excellent' and 'good'			
	Primarily in teaching	In both, but leaning towards teaching	In both, but leaning towards research	Primarily in research
Research equipment	29.5	24.7	25.4	34.7
Research support staff	27.0	21.7	19.8	20.4
Research funding	29.5	25.3	26.0	32.0

Table 9.11 Perceptions of influence on academic policy by gender

	Percentage of academics who rated 'strongly agree' and 'agree'	
	Male	Female
I believe I have some influence in helping to shape key academic policies at the level of the department or similar unit	50.8	42.6
Top-level administrators are providing competent leadership	49.2	49.4
I am kept informed about what is going on at this institution	41.3	43.1
Lack of faculty involvement is a real problem	44.6	36.7
The administration supports academic freedom	44.0	37.4

9.5 Influence and Satisfaction

The next subsections outline how Malaysian academics perceived several aspects of institutional decision-making and their views on their level of influence on academic policy formulation.

In an effort to understand the academics' satisfaction with regard to their degree of influence, data on the following composite index were tabulated in Table 9.11. 50.8% of male academics perceived themselves to have some influence in shaping key academic policies, compared to 42.6% of female academics. This suggests that female academics were less satisfied with their level of influence than their male counterparts.

Less than half of the academics felt satisfied with the leadership of the top level of administrators in their universities. Both male and female academics shared the opinion that their administrators exercised competent leadership (49.2 and 49.4%, respectively). However, a higher percentage of female academics (43.1%) perceived that they were kept informed with what was going on at the institution compared to the male academics (41.3%). More male academics than female (44.6% compared with 36.7%) perceived lack of faculty involvement as a real problem. Similarly, more male academics than female academics indicated greater satisfaction with administrative support for academic freedom (44.0% compared with 37.4%).

Table 9.12 Perceptions of influence on policymaking by research or teaching orientation

	% of academics who rated 'strongly agree' and 'agree'			
	Primarily in teaching	In both, but leaning towards teaching	In both, but leaning towards research	Primarily in research
I believe I have some influence in helping to shape key academic policies at the level of the department or similar unit	42.9	47.5	48.4	45.0
Top-level administrators are providing competent leadership	58.2	48.2	49.5	49.0
I am kept informed about what is going on at this institution	50.0	41.7	42.7	38.8
Lack of faculty involvement is a real problem	41.1	42.5	39.5	39.0
The administration supports academic freedom	43.2	41.9	39.6	40.5

Table 9.12 shows that academics who were oriented to teaching rated the lowest with regard to their influence in determining academic policies (42.9%), after those whose interest lays in research (45.0%). In terms of their satisfaction with the competence of administrative leadership, those who were primarily involved in teaching were more positive in their rating than others. In addition, levels of satisfaction were moderate in relation to being informed about the goings-on in their institution. Interestingly, the respondents with a preference for teaching were more satisfied in this aspect, with 50% agreeing, compared to 38.8% of those with a preference for research.

9.6 Support and Satisfaction

Malaysian academics rated their level of satisfaction on a number of support variables. The assumption is that the level of the support which they received at their institution can be one of the indicators of their level of satisfaction with their institution. Table 9.13 presents academics' rating of support by the management, by gender.

Academics rated highest 'a strong performance orientation' with 56.6% indicating that they were either very satisfied or satisfied, whether male or female. This means that they agreed with the assertion that a strong performance orientation existed in their institutions. While 50.1% of male academics agreed strongly that good communication existed between management and academics, female academics' perception of the quality of management-academic communication was slightly

Table 9.13 Rating of management support by gender

At my institution, there is	% of academics who rated 'strongly agree' and 'agree'	
	Male	Female
Good communication between management and academics	50.1	43.8
Collegiality in decision-making processes	40.9	37.8
A strong performance orientation	56.6	56.6
A cumbersome administrative processes	42.4	40.9
A supportive attitude towards teaching activities	46.5	40.8
A supportive attitude towards research activities	40.5	32.7
Professional development for administration/management duties	42.8	38.1

Table 9.14 Rating of management support by teaching or research orientation

At my institution, there is	% of academics who rated 'strongly agree' and 'agree'			
	Primarily in teaching	In both, but leaning towards teaching	In both, but leaning towards research	Primarily in research
Good communication between management and academics	42.1	48.4	48.8	52.2
Collegiality in decision-making processes	39.1	39.6	39.1	38.8
A strong performance orientation	58.3	56.1	57.6	59.2
A cumbersome administrative processes	39.6	41.3	43.3	39.6
A supportive attitude towards teaching activities	48.4	45.0	42.6	34.3
A supportive attitude towards research activities	37.6	36.0	37.7	22.9
Professional development for administration/management duties	43.0	38.6	41.8	41.5

lower as only 43.8% agreed/strongly agreed with the statement. Generally, more male academics than female academics perceived that administrative staff had a supportive attitude towards their teaching and research activities. These data suggest that the female academics were less satisfied with the attitude of the administration towards teaching and research activities.

The findings showed that the academics with a preference for teaching had the highest percentages compared with others (Table 9.14). In agreeing, these were evident at their institution:

1. A supportive attitude towards teaching activities
2. Professional development for administration/management duties

Ratings for good communication between management and academics varied a little across orientation with the strongest support reported by those whose preference was in research (52.2%). However, a substantially lower proportion of academics whose preference was in teaching perceived that the administration was supportive of their research activities (22.9%).

The response pattern for other statements related to management support is consistent across teaching and research orientations with percentages less than 45%. The data show that academics were less satisfied with the decision-making process at the institution, the cumbersome administrative process, support for research activities and professional development for administrative/management duties. Collegiality in decision-making and a supportive attitude towards research activities received the lowest ratings especially by those whose preference was in research. The academics whose preference was in research reported dissatisfaction with the decision-making process (with only 38.8% agreeing with the statement) and support for research activities (22.9% agreeing to the statement). Those statements that fell on the low end of the satisfaction scale should be taken into serious consideration. It appears then that the academics with a research orientation had strong opinions about collegial authority with respect to decision-making and support for research.

9.7 Are They Really Satisfied?

The academics surveyed had to respond to three negative statements on issues related to academic satisfaction with various aspects of their job choice and situation. Table 9.15 presents data on the proxy measures of satisfaction by gender and orientation.

The data show that a larger proportion of male academics than female academics agreed with the negative statements although little difference was apparent between the ratings given by male and female academics. A somewhat larger proportion of academics whose preference was for teaching agreed that 'this is a poor time for any young person to begin an academic career' (18.3%) compared to those primarily involved in research (12.5%). On the other hand, the proportion of academics primarily involved in research who indicated that they would not choose to be academics if they could begin all over again (in other words, they regretted their choice of career) (22.2%) is relatively higher than those who were primarily involved in teaching (14.9%). The academics whose inclination was primarily towards teaching reported a higher percentage of agreement with the statement that their job was a source of personal strain (26.3%) compared to those whose preference was in research (23.4%). It could be said that those more involved in teaching experienced greater strain compared to those heavily involved in research.

Table 9.15 Proxy measures of satisfaction by gender and by research or teaching orientation
 % of academics who rated 'strongly agree' and 'agree'

	Male	Female	Primarily in teaching	In both, but leaning towards teaching	In both, but leaning towards research	Primarily in research
This is a poor time for any young person to begin an academic career in my field	12.4	9.8	18.3	10.0	10.9	12.5
If I could do it all over again, I would not become an academic	11.5	9.8	14.9	10.0	9.5	22.2
My job is a source of considerable strain	20.3	19.9	26.3	18.7	20.3	23.4

9.8 Sense of Job Satisfaction Among Malaysian Academics

This chapter has used three drive determinants or main composite indices: perception of physical facilities, perception of influence and perception of managerial support. This chapter assesses the level of job satisfaction by four sets of physical service variables: infrastructure, service, teaching and research.

The findings reveal that the academics were satisfied with the infrastructure and teaching facilities but less satisfied with service and research facilities. The number of hours dedicated to teaching was more than double the time reported for doing research activities. It is clear that teaching is not only considered a central activity within the universities but much more effort appears to be directed to its support. Universities seem to invest their resources in upgrading technology-related facilities but less on human resources in the form of secretarial and teaching support staff.

The findings from this study suggest that academics whose preference is for research carry out their work in less than optimal conditions. It does appear, however, that the universities are experiencing difficulties with respect to providing adequate support for research facilities. In Malaysia, there are several government policies concerning research. All public universities are required to have a research management centre that manages and plans research activities. The national research policy environment has stimulated much activity at the university level. The majority of the academics in this study were concerned with the shortcomings regarding their research working conditions. For the most part, academics were not satisfied with research equipment, research support staff and research funding.

It is found that the provision of services is based on physical resources rather than human capital. This conventional paradigm is worrying in the digital age. In view of this, it is proposed that the financial allocation for research funding be restructured so that academics can be supported with more human capital resources such as research assistants and research officers. Given current concerns on knowledge production by researchers, it seems disturbing that researchers perceive their working conditions to be less than desirable. It is therefore suggested that academics, including researchers, who are less than satisfied in the profession be provided with better support and incentives so as to prevent a brain drain.

The responses to statements about decision-making structures are quite helpful in terms of suggesting a picture of the degree of devolution of decision-making within the universities and in terms of gauging opinions about satisfaction with the degree of devolution. There are some differences of opinion among the categories. Male academics perceived themselves to be more influential than their female counterparts. This may highlight the fact that women are underrepresented in academic leadership positions in Malaysian universities and, as such, have less access to information and communication. Academics whose interest lay in teaching rated the lowest influence in determining academic policies but reported higher satisfaction with the competence of administrative leadership and being informed of what was going on in their institution compared to those whose interest lay primarily in research.

Academic policies at the university level more often than not relate to curriculum, teaching and learning outcomes, and these policies are centrally defined and directed. While the university senate is increasingly being seen as ‘not the final authority’ in academic decision-making, the interpretation of centrally directed policies regarding teaching and learning is usually very clear, and academics are involved in developing teaching and learning implementation plans which they may see as practical. Academics too are confident in the judgement and decisions of senate members as the senate represents a collegial power. This is probably the reason why teaching-oriented academics tend to be confident with the power of leadership and administration.

In many Malaysian universities, with the exception of the five research universities, the research agenda takes its own course as research is not central to their formal mission. Expanding and improving the quality of research in particular and seeking external funding and research equipment are activities greatly dependent on the strengths and interests of individual researchers. At times, academics are not particularly concerned with national research directions since universities have partly lost control over the research agenda to external interests. What matters to the academics is that they have the freedom to pursue research that is of importance to their specialisation and interest. Thus, professors who are used to having extensive autonomy in choosing their research topic, subjects and methods are increasingly constrained by strategic institutional decisions, monitoring and control that are less supportive of research.

Thus, it is important that the university management ensures that their research unit or office supports research in all its facets, enabling academics to pursue research through conducive university policies and procedures and to promote academics with research strength to potential external funders. As for communication between management and academics, it should be inclusive of everyone in the university and should ultimately promote an atmosphere of collaboration. In one highly rated organisation, Snow (2002) found that productivity is highest when people have a clear idea what is expected of them and know how they contribute to the mission of the organisation. Developing a sense of openness and communication with appropriate autonomy can also be factors that enhance academics’ satisfaction. In sum, there is a need to create new mechanisms to bring faculty and administrators together to resolve problems, re-establish better communications and revive collegiality so that mutual trust and respect may be better fostered and strengthened.

With regard to academics’ perceptions of managerial culture and climate and support, several findings stand out. The academics agreed that there was a strong performance orientation in their institutions. Male academics were more satisfied than their female counterparts with the communication and with the attitude of the administration towards teaching and research activities. This finding suggests that gender plays a part in evaluating persons in management positions. This contrasts with Dennis and Kunkel’s research (2004), which found that female participants were less hostile and generally rated administrators as more competent and effective than their male counterparts. Among different orientations, those whose preference

was in research seemed to be less satisfied with the state of collegiality in decision-making and attitude towards research activities.

What might explain these differences between orientations? Arguably, there is too much of the competitive spirit within Malaysian universities and among universities, especially with respect to research. Moreover, since the establishment of Accelerated Programme for Excellence (APEX) and research universities, the obsessiveness with global ranking is pushing universities to drive hard on performance (especially in publications). Thus, measuring research productivity by use of the Science Citation Index (SCI) and the Social Science Citation Index (SSCI) has become very influential. The pressure on academics to publish has been increased, resulting in unnecessary pressure on both academics and administrators.

Inter-research university collaborations are now being developed, and this new move is a testament of the unhealthy competitive spirit noted above. Competition may not be cost-effective when it comes to higher education research, as equipment is very expensive and funding sources are severely limited. The universities want to see the results (publications in high-impact journals), but in many institutions, there is almost negligible support in terms of additional funding and research support staff. In addition, the bureaucratic machinery has not simplified financial and administrative procedures related to research.

An analysis of the workload expectations reported by the Malaysian academics indicates that academic core work was perceived to be expanding along with an increase in research and administrative demands associated with accountability and compliance requirements. This situation reflects Coaldrake and Stedman's (1999) claim that academic work has stretched rather than adapted to meet the challenges posed by transformation of the higher education sector. Universities may need to review and benchmark for best practices in workload allocation policies that might alleviate heavy workloads. This is to prevent loss in productivity and ultimately higher opportunity costs in terms of time, effort and resources to both the institution and its faculty members in the long run. Universities may also be compelled to encourage time allocation patterns that reflect their institutional mission, i.e. research or teaching focussed.

Little difference was apparent between the ratings of male and female academics related to job choice and situation. A larger proportion of academics whose preference was for teaching indicated that they were under strain yet agreed with the idea of becoming an academic. On the whole, despite some minor differences relating to gender and research/teaching orientation, Malaysian academics are generally appreciative of their work and academic career. This result is evidenced by the high level of satisfaction indicated by the data from the overall satisfaction level. Male academics are more satisfied than their female counterparts with their current job and reported that working conditions had very much improved. This contradicts the results of Hickson and Oshagbemi (1999) and Santhapparaj and Alam (2005) who found that women academics tend to be slightly more satisfied in their career than their male counterparts are.

The perceived level of overall satisfaction is lowest among those who were primarily involved in research. Arguably, funding is based on competitive bidding,

and the limited resources for research and the complexity of administration related to research activities have contributed to this low level of satisfaction. For teaching, Malaysian public universities receive subsidies based on enrolled student numbers. While there is an established formula for the funding of teaching-related activities in the public universities, there is none for research. It is also noteworthy that the concentrations of research funding in the research universities have had a differential impact on academics who work in comprehensive and research universities. However, it is important to note that while research funding from the Ministry of Higher Education is rather limited, there are other sources of funding for research, such as from the Ministry of Agriculture, Ministry of Tourism and the Ministry of Science, Technology and Innovation.

Overall, the data reveal that Malaysian academics show a considerable level of job satisfaction and that they have a high regard for their profession, which is in contrast with the international tendencies of the last few decades that showed low self-esteem and growing pressure in academia (Boyer et al. 1994; Altbach 2000). There is however a need to find out whether the high satisfaction level will result in complacency, i.e. academics may be so comfortable with their job that they may not be motivated enough to strive for greater achievements.

The data presented in this chapter reflect how Malaysian academics regard several important aspects of their profession/work condition. Their views, however, seem paradoxical. On the one hand, they appear to be satisfied in general with many aspects of their careers. On the other hand, they express dissatisfaction with regard to infrastructure and support available to them. Despite the shortcomings of the work environment, Malaysian academics seem to be committed to their work and career. In Malaysia, academics are considered to be public civil servants. Each academic rank is aligned to the general structure of the Malaysian civil service and is a permanent post. Academics are given permanent appointments which end with retirement, and there are a number of perks as well, such as subsidised housing and car loans. Thus, job security in the public sector is higher than in the private sector. It must be noted that academics retiring from public universities receive pensions and can be rehired on a contract basis until the age of 65, unlike other government officers who retire at the age of 58. The academics' salary level is also higher, and the difference between academic promotions and the promotion of other civil servants is that the promotion of the former is based on scholarly achievement while the latter is decided competitively within the limits of the number of vacant positions. Normally in the latter case, promotion is based on seniority. As stated by Rosser (2004) and Hagedorn (1996), salaries, retirement arrangements and job security have been shown to be important personal issues and considerations that can affect the satisfaction of faculty members in universities.

Thus, despite a heavy teaching load, lack of service and research resources and less influence in aspects related to the administration and management of the institution, the academics surveyed were still satisfied with their profession. The positive attitude is perhaps a reflection of their resilience and the belief that these are changing times. This supports Altbach's (1996: 48) claim that that 'academe is facing the future with concern but with surprising optimism'.

9.9 Conclusion

The challenges for Malaysian universities in a rapidly changing environment are manifold. In particular, the governance and management of universities are affected as they respond rapidly to the national higher education transformation plan. New institutional strategies have been developed to improve the effectiveness of universities and to achieve higher levels of quality and accountability. Within the new transformation process, the academic profession has also changed in terms of its traditional roles and function. Since the academics' role is essential to the functioning of the university system, it is transformed along with the transformation in the function of the system. On the whole, close examination of the Malaysian CAP data seems to indicate that the academic profession remains attractive to Malaysian academics.

Notwithstanding the positive perception of the profession, the academic working conditions and the management and governance of universities must continue to be given priority to foster a conducive working environment and culture which supports initiative and productivity which are in the interests of the academics, the universities and the Ministry of Higher Education. The balance between individual academic freedom and institutional aims needs to be recognised and valued. The success of the university in society depends to a great extent on how its academics are perceived and valued. Academics should be encouraged to find personal satisfaction by pursuing personal goals that are compatible with those of the university and their external environment.

Arguably, academics are in themselves an important and valuable national resource. They are the key to a successful higher education system. Their ability to adjust constantly to the rapidly changing system is vital. Both national and institutional policies and practices need to take account the demands of the academic profession in terms of job satisfaction along with its intrinsic and extrinsic factors.

The overall job satisfaction level of the Malaysian academics could mean that the respondents are well suited for the relatively sheltered life of academia and that they are quite settled into the service. On the other hand, it could mean a system of complacency, which does not bode well for the transformation agenda of higher education. Job satisfaction is an important area that needs to be researched further in the Malaysian academic work life since it is related to performance and productivity. At the same time, academic job satisfaction studies can guide the university management to understand the demands of the academic life in terms of satisfaction and stress and their intrinsic and extrinsic factors as a result of the rapidly changing system.

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Chapter 10

Portugal: Dimensions of Academic Job Satisfaction

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The Portuguese higher education system has a very long and rich history. Portuguese higher education, like higher education systems elsewhere, continues to struggle with a desire for democratisation and the challenge of dealing with its resultant massification. Academics are a crucial part in this equation, since the profession needs to adjust itself in order to both face and promote change (Taylor et al. 2007). The academics' intellectual capital is the most important asset of a higher education institution, particularly their competence and commitment in successfully dealing with its goals, transformation and challenges. However, accompanying organisational changes, there has been a shift in academic careers as they became less predictable and, especially in the early stages, more unstable.

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This chapter provides, first, a general overview of the Portuguese higher education system's historical institutionalisation, aiming at contextualising the main traces of the evolution of Portuguese academic profession. Second, the methodological approach is outlined. Third, this chapter presents the main results and conceptual analysis of an empirical study on academics' perceptions of their job satisfaction in the Portuguese higher education system.

10.1 An Overview of Portuguese Higher Education

10.1.1 *Brief Historical Context*

Portugal was one of the first countries to have higher education. The origin of Portuguese universities can be traced back to the middle of the thirteenth century, and the first Portuguese university was founded in 1290. However, until 1911, the country had only one university (in Coimbra), at which time the new Republican system created two other universities in Lisbon and Porto (Crespo 1993; Santos 2002). After the April 1974 democratic revolution, Portuguese higher education underwent profound changes and has been continually evolving ever since, with a significant expansion in the number and type of institutions. The demand for higher education increased, which caused the expansion of the public higher education system and the emergence of the private sector. As Amaral and Teixeira (2000, p. 246) emphasise:

Until the mid-1970s, the Portuguese higher education system was clearly an elite system. Low enrolment levels, despite some attempts to increase the overall participation rate, characterised it. Moreover, the political and social changes brought by the 1974 democratic revolution enhanced the pressure for expansion of the public system. In the mid-80s, the idea of significantly expanding the role of the private sector gained political support, as this expansion would allow for an increase in enrolments with a minor cost to public finances.

In the 1980s, the Comprehensive Law on the Education System formally established two subsystems of higher education, universities and polytechnic institutes, organising Portuguese higher education into the current binary system of both public and nonpublic higher education.

The university and polytechnic subsystems can be differentiated in their goals, the degrees they award and their research orientation. Both can award the degrees of *licenciado* (first cycle) and *mestre* (second cycle: master degree; since 2006 in the case of polytechnics), but only universities can award the degree of *doutor* (third cycle: Ph.D.).

Universities, polytechnic institutions, military and police institutions and non-integrated schools fall within the scope of public higher education. Private higher education includes universities, polytechnics and 'other establishments'. There is also a multicampus Catholic university that holds a unique status (Taylor et al. 2007). Based on the latest available data (DGES 2010), Portuguese higher education comprises

13 public universities, one public university institute, one public distance-learning university, 15 public polytechnics, five specialised higher education institutions, four military institutions (public) and around 80 private entities administering both universities and polytechnics.

10.1.2 The Academic Profession Within the Binary System

The legal framework of academic careers is quite different in public and private institutions. In the former, it is the government that defines the numbers of teaching staff, establishes salaries and creates the rules for career advancement. Academics in public institutions are civil servants, whereas there are no established regulations for academics in private institutions. Rather, institutional decision-makers define the number of academics, their remuneration and the rules for career advancement (Machado-Taylor et al. 2010).

The legal provisions of academic careers in public institutions have not changed in three decades. As Meira Soares and Trindade (2004, p. 354) assert: ‘The features of the university career [...] have not changed much during the last 30 years, despite the fact that, at different times, many educational authorities recognised that it may have become slightly obsolete’.

In 2009, a new legal framework for public academic careers was approved. The new legislation for university academic careers requires a Ph.D. degree as a prerequisite and has abolished the ranks of assistant and junior assistant that were available to academics not holding a Ph.D. In the polytechnics, academic careers also underwent significant change with the abolition of the rank of assistant, the creation of a new rank of Principal Coordinator Professor (only accessible to professionals holding a Ph.D. for 5 or more years), and incorporating the title of *Agregado* (be filled after a public competition and moreover in the former legislation, this title was exclusive to the university academic career). Another significant change was the introduction of the title of ‘specialist’ for individuals with a good professional background.

These legislative changes to the academic careers in the two subsystems have not eliminated differences between them in terms of hierarchies, progression or remuneration. Mobility between the subsystems is possible, although it is not very common and is inhibited by the rigidity of policies and regulations and by the lack of a legal framework supporting such mobility. University academic careers are still considered to be distinguished and rewarding because they imply high levels of both cultural capital and salary.

10.1.3 Gender Issues in Portuguese Academia

Taylor et al. (2007b) argue that there is an increasing feminisation of the academic career in Portuguese higher education, as shown in Fig. 10.1.

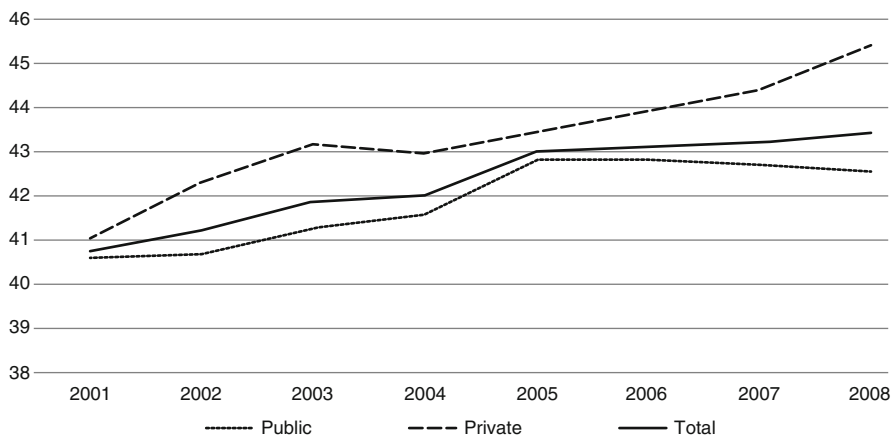


Fig. 10.1 Evolution of female participation in Portuguese academia (%) (Source: *Inquérito ao Registo Biográfico de Docentes do Ensino Superior*, GPEARI 2010)

Official data (OECD 2010) reveal that there is an increasing percentage of women in academia, considering the overall Portuguese higher education system, which places Portugal in a better position for gender parity (43.2% of the academics are women) when compared to not only the average of the OECD countries (40.1%) but also with the average of the EU19 nations (40.7%). Despite this general trend, there are some differences between the two subsystems that should be highlighted. Women's participation at faculty level is higher in polytechnics (47.4% of female academics in public polytechnics in 2008) than in universities (39.1%), which is important since the polytechnic subsystem has less power and social prestige when compared with universities. Moreover, a separate analysis of the public and private sectors (see Fig. 10.1) shows that the feminisation of Portuguese academia is mainly accomplished at the expense of the private sector (GPEARI 2010). In the public sector, women's participation as academic staff increased until 2005 (40.6% in 2001 and 42.8% in 2005) but stagnated in 2006, with a slight decrease in the two subsequent years (42.6% in 2008). In the private sector, there has been a gradual increase of women academics over the last decade (from 41.1% in 2001 to 45.4% in 2008).

However, the number of women consistently decreases, both in universities and in polytechnics, when considered from the lowest to the highest ranks, although this difference is much more visible in the university academic career. For instance, in 2008 at the top of the university academic career in the public sector, there were 996 men to 278 women (a ratio of 3.58:1), whereas the difference was less pronounced in the polytechnic institutes, with 428 men and 345 women at the top of the academic career (1.24:1).

Taylor et al. (2007) also revealed significant gender differences in academic career development in Portugal. However, another study presents a more positive view of the role of women in academia (European Commission 2008). In this study, it was pointed out that from a cultural perspective, women in leadership positions are generally well accepted in Portugal: data point to a high representation (21%) of

women in the top jobs in academia. However, a vertical segregation, along with horizontal segregation, persists in female academics' access to the top academic rank careers (Carvalho and Santiago 2010c).

Therefore, it is relevant to examine carefully not only the gender differences *per se* but also other variables such as the higher education subsystems and the career ranks. Another relevant issue, not sufficiently addressed in the Portuguese context (or in the international research arena), is the preference for teaching or for research. These concerns motivated the analysis presented in this chapter.

10.2 Theoretical Background

Job satisfaction may be linked to productivity and institutional quality (Evans 1999; Machado-Taylor et al. 2010; Oshagbemi 2000). Herzberg's two-factor theory (1966) is one of the best known job satisfaction theories. Starting from the classic and well-known Maslow hypothesis model (1970) on the human needs and personality, Herzberg distinguishes between motivators or intrinsic factors – achievement, recognition, the work itself, responsibility, advancement and growth; and hygiene factors or extrinsic factors – company policy, supervision, relationship with boss, work conditions, salary and relationship with peers. According to Herzberg (1966), intrinsic factors relate to job satisfaction when present but not to dissatisfaction when absent. The extrinsic factors are associated with job dissatisfaction when absent but not with satisfaction when present.

Most studies try to identify the overall job satisfaction of academics and the factors that determine their satisfaction and/or dissatisfaction. The factors used in most studies are pay, career development, workload, job security, relations with colleagues, relations with those in positions of management, the physical environment of the workplace and the existence of financing for research (Castillo and Cano 2004; Hagedorn 2000; Ssesanga and Garrett 2005; Lacy and Sheehan, 1997; Oshagbemi 1999, 2000; Nyquist et al. 2000; Küskü 2001, 2003; Ward and Sloane; 2000). A brief review of previous studies on academic job satisfaction allows us to identify some traits common to all of them:

1. Several studies on job satisfaction of academics depart from Herzberg's two-factor theory (1966), but the results are diverse. Some studies confirm the theory, others do not confirm and still others only partially confirm the theory (Ssesanga and Garrett 2005; Castillo and Cano 2004; Hill 1986; Pearson and Seiler 1983, cited in Lacy and Sheehan 1997).

Castillo and Cano (2004) studied the variability of teachers' overall job satisfaction explained by Herzberg et al.'s (1959) job motivator and hygiene factors. The study concluded that:

- The factor 'work itself' was the most motivating aspect of the teaching profession and the 'working conditions' the least motivating aspect; that is, teachers were most satisfied with the content of their work and least satisfied with the context in which their work was done.

- The factors ‘recognition’, ‘supervision’ and ‘interpersonal relations’ explained the variability of teachers’ overall job satisfaction, which means that leaders of the institution, to increase satisfaction, should make efforts to improve these three aspects of teachers’ jobs.

Ssesanga and Garrett (2005) also considered the two-factor theory in analysing the factors influencing academic satisfaction and dissatisfaction in higher education. They found that academics were relatively satisfied with co-worker, supervision and intrinsic factors of teaching and dissatisfied with remuneration, governance, promotion and physical facilities.

The findings do not wholly support Herzberg’s theory, although the intrinsic elements of teaching and research are likely sources of satisfaction and the extrinsic elements of these two areas are more likely sources of dissatisfaction. So, any factor could either induce satisfaction or dissatisfaction. Moreover, while age, rank and tenure significantly influenced academic job satisfaction, there was no evidence to suggest a gender influence in academics’ satisfaction.

2. Lacy and Sheehan (1997) analysed aspects of academics’ satisfaction with their job across eight developed nations – Australia, the USA, Germany, Canada, Mexico, Israel, Sweden and the UK – concluding that, contrary to Herzberg’s theory, both aspects of the job (intrinsic and extrinsic aspects) could result in both job satisfaction and dissatisfaction. Academics were generally satisfied particularly with four facets of the jobs: the opportunity to pursue their own ideas, relationships with colleagues and job security and their general situation. A significant proportion of respondents (44.1%) were dissatisfied with prospects of promotion. Regarding overall satisfaction, around 60% of academics in Sweden and the USA were satisfied, compared with their counterparts in Mexico, Germany, the UK and Australia, where less than 50% of the academics were satisfied.
3. Oshagbemi (1999) investigated the job satisfaction of academics and their managers. Regarding overall satisfaction, more than half of those surveyed indicated they were satisfied with each of the following five aspects of work – teaching, co-workers’ behaviour, research, physical conditions/facilities and head of units’ supervision. However, there were aspects of work where the respondents indicated that they were not satisfied – administration and management, present pay and promotions – and this dissatisfaction was higher for the latter two aspects. The author also concluded that academics and their managers differed significantly in the level of job satisfaction: academics were less satisfied with their work compared with their managers. Managers were more satisfied specifically with teaching, promotions, supervision of their superiors, physical conditions/facilities and co-workers’ behaviour.

In another study conducted by Oshagbemi (2000) in order to determine how satisfied academics were with their primary tasks of teaching, research and administration and management in the UK, the author concluded that – with respect to factors which contributed to satisfaction and dissatisfaction with teaching – participants appeared to have largely enjoyed the courses they taught, but some teachers indicated dissatisfaction with class size and their teaching

load. In comparison to teaching and research, university teachers were dissatisfied with their administrative activities, complaining of the excessive paperwork and that the time spent on administrative activities reduces the time left, particularly for research.

4. Ward and Sloane (2000) found that overall job satisfaction was high; academics were most satisfied with the opportunity to use their own initiative, with the relationship with their colleagues and with the actual work; they were least satisfied with promotion prospects and salary. They also found that non-pecuniary factors play an important role in job choice of academic staff.
5. Küskü (2001) analysed the satisfaction level of the academic staff of a state university in Istanbul, using different dimensions to measure this satisfaction in an original questionnaire: general satisfaction, management satisfaction (university and faculty management satisfaction), colleague (other academic staff) satisfaction, and other work group satisfaction, job satisfaction, physical environment (organisational conditions) satisfaction and salary satisfaction. Participants were most satisfied with professional satisfaction and institutional job satisfaction followed by colleague competition level satisfaction and colleague relations satisfaction. In a more recent study (Küskü 2003), using the same dimensions as in the previous study, the author found that there were certain differences in factors such as 'colleague relations satisfaction', 'colleague competition level satisfaction', 'other work group satisfaction', 'professional satisfaction', 'work environment satisfaction' and 'salary satisfaction' with respect to the satisfaction of academic and administrative employees.
6. The importance of higher education leaders in changing aspects that lead to dissatisfaction among academics and supporting those aspects that lead to satisfaction has been emphasised in several studies (Ssesanga and Garrett 2005; Oshagbemi 1997, 1999; Verhaegen 2005; Bilimoria et al. 2006; Rhodes et al. 2007; Evans 1999).
7. With respect to gender, female workers tend to express greater satisfaction than men, while female academics show similar levels of satisfaction to male academics (Clark et al. 1996; Clark 1997; Sloane and Williams, 1996a, b, cited in Ward and Sloane 2000; Santhapparaj and Alam 2005; Stevens 2005).

The results of these studies are diverse with regard to the factors that determine the satisfaction and dissatisfaction of academics in higher education (Castillo and Cano 2004; Hagedorn 2000; Ssesanga and Garrett 2005; Lacy and Sheehan 1997; Oshagbemi 1999, 2000; Nyquist et al. 2000; Küskü 2001, 2003; Ward and Sloane 2000).

10.3 Methodological Approach

In Portugal, the survey document used in *The Changing Academic Profession (CAP)* project was administered electronically from October to November 2008 to all academics (from full professors to assistants), as well as to researchers employed in

all Portuguese public universities ($n=14,566$) and in all public polytechnics ($n=10,265$) (data referring to 2007/2008, retrieved from GPEARI 2010). The total number of respondents was 1,320, surpassing the cross-international CAP team project recommendations set at least 800 respondents, with 857 from universities and 319 from polytechnics (144 missing values in this item).

Few studies on the academic profession and on academic work had been experienced in the Portuguese higher education (see Carvalho and Santiago 2009; Meira Soares and Trindade 2004; Taylor et al. 2007). Hence, these data emerge as an important contribution to this field of study.

As the gender and the binary nature (university and polytechnic) of the system are important issues in the analysis of the Portuguese academic career structure (Santiago and Carvalho 2008; Carvalho and Santiago 2010a, b, c), we have chosen to include these variables in our analysis, as well as academic level, discipline and preference for teaching or research.

10.4 Brief Overview of the National Academic Population Captured by the CAP Survey

10.4.1 *Summarising the Main Personal Characteristics*

The majority of the respondents to the CAP survey were men (55%), reflecting the national gender composition of the academic profession: the 2008 data (GPEARI 2010) showed that 56.6% (20,016) of Portuguese academics were men. In recent years, there has been a slight tendency to increased participation of women in academia from 40.8% in 2001 to 43.2% in 2007 (GPEARI 2010).

A higher proportion of respondents (72.9%) were from public universities even though the distribution of academics per subsystem is less pronounced: 57.3% of Portuguese academics are from universities (considering only public higher education for 2008, data from GPEARI 2010).

Considering the two subsystems, the majority of the academics (58.5%, 861 respondents) were aged between 35 and 49 years old, while 33.1% were more than 50 years old and only 8.4% were less than 34 years old. This indicates that the majority of respondents were mid-career. In Portugal, academics working in the public sector are eligible to apply for retirement at 65 or to delay retirement until their 70s, which is the limit imposed by law. But the lower percentage of younger respondents suggests that there may be some challenges in overhauling the academic workforce, not only due to the budget cuts but also to the new 'human resources management' policies, especially with the introduction of instruments of numeric flexibility and recruitment restrictions (Santiago and Carvalho 2008).

The nationality (at birth) of academics is largely Portuguese (92.5%), and 97.4% of respondents used their mother tongue as the first choice language for teaching. Nevertheless, 58.2% of the respondents preferred other languages in research activities

(compared with 41.8% that still opted to use their first language/mother tongue), with English the preferred language other than Portuguese (94.5%).

Another relevant socio-demographic variable analysed in Portuguese academia is a slight ascendant social mobility and the consolidation of the 'cultural and scientific capital' (Bourdieu 1989) that was achieved by academics (Santiago et al. 2009, 2010). Some are more educated than their parents, being the first generation in their family to attain a higher education degree. The majority of CAP respondents reported that their father's and mother's highest educational level as secondary education (father 30.7%; mother 27.6%) and primary education (father 33.5%; mother, 41.8%), while only 34% had fathers and 27.3% had mothers who had attended or completed higher education. Interestingly, there were statistically significant differences ($\text{sig}=0.009$) in the family educational background between academics from the two subsystems. A higher proportion of academics in universities had fathers who had entered or completed a higher education degree (34.6%) compared with those from polytechnics (32.9%). More academics from polytechnics have fathers that only entered or completed primary education (36.2%) compared with academics from universities (32.1%). It can therefore be argued that expansion and diversification of higher education institutions has opened up access to academic careers to non-traditional social groups.

Regarding family status of respondents, 79.1% were living with a companion (married/partner), and most (92.3%) reported that the partner's educational level was the same as theirs, with 31.5% of partners also involved in the academic profession. This phenomenon suggests a strong 'social endogamy' among Portuguese academics (Santiago et al. 2009).

A large proportion (65%) of respondents had responsibility for children (1 = 24%; 2 = 32.1%; 3 = 11%), but the majority (84.5%) did not take time out from work for either child or elder care. The legal framework for parental leave changed recently from 4 (usually only taken by mothers) to 5 months (with 1 month being partially paid) to be shared between both parents. Moreover, parents have access to family leave of 15 days (each) per year to assist any member of the family (children, spouse and parents). Nevertheless, and as expected, most of those who did interrupt their employment (15.5%; mean = 5.54 months; std. 4.509) to provide care were women ($W=27.7\%$; $M=5.4\%$; $\text{sig}=0.000$). That is, the reproduction of the gendered social roles also overlaps professional roles in the academic world (Santiago et al. 2009; Carvalho and Santiago 2008, 2010c).

A large percentage of the Portuguese CAP respondents belonged to disciplines such as engineering, manufacturing and construction and architecture (23%), as in the distribution pattern of the academic population (24.5%) (see Table 10.1). The deviations were more obvious in the life sciences and physical sciences, mathematics and computer sciences (where the percentage of CAP respondents – 22.5% – was higher than in the actual population – 15.7%) and in medical sciences, health sciences and related social services (where the percentage of CAP respondents – 10.1% – was lower than in the actual population – 18%).

Analysing the discipline distribution by gender, the highest concentration of men (30.3%) was in engineering, which is not surprising since this is a typical male

Table 10.1 Academics by discipline of current academic unit

Discipline of current academic unit	Number of CAP respondents (<i>n</i>)	% of CAP respondents	Number in population (<i>N</i>)	% of population
1. Education	61	6.1	1,455	6.0
2. Humanities and arts	76	7.6	2,214	9.1
3. Social and behavioural sciences	92	9.2	5,980	24.6
4. Business and administration, economics	117	11.8		
5. Law	10	1.0		
6. Life sciences	76	7.6	3,820	15.7
7. Physical sciences, mathematics, computer sciences	148	14.9		
8. Engineering, manufacturing and construction, architecture	229	23.0	5,950	24.5
9. Agriculture	28	2.8	467	1.9
10. Medical sciences, health-related sciences, social services	100	10.1	4,377	18.0
Other	58	5.8	17	0.1
<i>Total</i>	955	100.0	24,280	100.0

discipline. There was a less concentrated distribution of academic women, with emphasis on physical sciences, mathematics, computer sciences (14.6%), engineering (14%), business and administration and economics (12.6%) and social and behavioural sciences (11.6%). Women were only the majority in disciplines such as education (60.4%) and social and behavioural sciences (60.3%).

In the two subsystems, engineering was the discipline most represented among the CAP respondents (22.7% in universities and 24.5% in polytechnics). However, in universities, the physical sciences, mathematics and computer sciences (15.7%) are also well represented, while business and administration and economics (16.8%) are more pronounced in polytechnics. In general, and with the exception of agriculture (where 51.7% of respondents come from the Polytechnic), all other disciplines comprised a majority of academics from universities.

Senior academics were predominantly from engineering (30.3%), physical sciences, mathematics and computer sciences (13%) and medical sciences, health-related sciences and social services (11.8%), while junior academics were also from engineering (30.3%); physical sciences, mathematics and computer sciences (15%); business and administration and economics (12.6%); and medical sciences, health-related sciences and social services (11.2%).

10.4.2 Career Trajectory

As stated earlier, one important change in academic careers in Portugal is the requirement for academics to hold a higher degree before being eligible to apply for

Table 10.2 Years of Ph.D. according gender and type of institution

Years	% (n=852)	Gender (n=566)		Type of institution (n=525)	
		Male	Female	University	Polytechnic
1961–1990	14.2	78.7	21.3	95.55	3.45
1991–2000	36.0	57.9	42.1	88.85	11.15
2001–2008	49.8	53.7	4	8.8	19.2

an academic job in either subsystems. The new higher education act (Law, 6/2/2007) requires a Ph.D. degree as the minimum academic qualification for eligibility to apply for any vacant position in both universities and polytechnics. This regulation applied from September 2009. However, at the time of the survey, a bachelor or master's degree was the minimum qualification required by law for an academic to apply for a tenured position. The majority of the academics respondents (64.5%) had a Ph.D., and of those, 74.8% obtained this degree in Portuguese higher education institutions. This 'national centrality' is even more obvious in the first and second degrees, with only 4.4 and 12.9%, respectively, that obtained those degrees outside Portugal. This changes when we consider the percentage of postdoctoral degrees earned in a foreign country that increases up to 38.5%.

The requirement for academics to hold a Ph.D. degree is a recent phenomenon (see Table 10.2) framed within a context of expansion, diversification and massification of the Portuguese higher education system. Until 1990, only an elite had access to Ph.D. degrees, but access opened up in the 1991–2000 period and has become even more 'democratised' since the beginning of the twenty-first century (Santiago et al. 2009).

This 'democratisation' has also assumed a gendered character, as the findings of this survey show. From 1991 to 2008, there was an increase (in percentage terms) in the number of PhDs obtained by women academics, which corresponds to the general tendency since 1992. Until 1990, only 24.2% of the respondents who obtained a Ph.D. degree were women. This percentage increased significantly in the 1990s to 44.6% and then to 50.9% when more female than male academics had a Ph.D. In the 1970s, women earned only 141 (18.3%) out of the 769 PhDs awarded, this figure rising to 673 out of 2,065 (32.6%) in the following decade. The same trend occurred in the 1990s, with the number of PhDs obtained by women increasing to 38.9% (2,030 out of 5,213 corresponding to a female participation rate of 38.9%). Data from 2000 to 2008 showed that female participation had significantly increased with women earning 47.9% of all PhDs. However, a significant gender gap between Portuguese academics holding a Ph.D. still prevails. In 2007, only 38% of those with of PhDs were women (official data from 2007, GPEARI 2010). Nevertheless, other studies (Carvalho and Machado 2010; Carvalho and Santiago 2008, 2010a, b) have demonstrated that the persistence of vertical and horizontal segregation with gender distribution by the academic rank and areas in the academic career structure continues in the Portuguese higher education.

Examining the work experience of the Portuguese academics, Table 10.3 indicates that there is little career mobility. The majority of CAP respondents (50.6%)

Table 10.3 Work experience in academic profession

Number of HEIs and RI worked	1		2		3		>4		Total	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Since first degree	668	50.6	220	16.7	76	5.8	163	26.9	1,127	100
Since highest degree	591	70	87	10.4	52	6.2	110	13	840	100
Number of years worked in	1		2		3		>4		Total	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Other institution since first degree	482	71	78	11.5	35	5.2	83	12	678	100
Other institutions since highest degree	255	89	15	3.8	12	3.0	15	4	397	100

have worked in only one higher education institution since their first degree, and this percentage increases up to 70% when considered the highest degree.

However, the large majority of Portuguese academics are full-time professors, which implies that they have an exclusive and permanent individual contract with the higher education institution, in accordance with the career public statute. This does not allow working in the private sector and also limits institutional collaboration with other public higher education institution (Santiago et al. 2009). Moving to part time before gaining tenure can lead to a loss of employment security and the reallocation of the career outside the tenure track (Santiago et al. 2009).

As mentioned earlier, academics' careers in public higher education had stabilised in the decades until September 2009. The Portuguese binary system means there are two different careers – university and polytechnic – with different employment policies – more research focused in universities and more teaching focused in polytechnics, consistent with their vocational and professional objectives (Santiago et al. 2009, 2010). Both careers are very segmented and stratified/pyramidal in the sense that in the top of the academic rank (full professor and associated professor or coordinator professor) vacant positions are limited (Santiago and Carvalho 2008). Even if academics fulfil all the criteria for career promotion, namely, based in academic productivity, this only happens when a position becomes available (Santiago and Carvalho 2008).

As shown in Table 10.4, in both universities and polytechnics, a higher percentage of academics is classified as 'other', in polytechnics (41.7%). This classification corresponds to invited professors (university) or equivalent professors (polytechnic) who, in the most cases, do not have tenured positions but can be appointed as full-time professors (Santiago and Carvalho 2008). Thus, a 'parallel/hidden' career can be observed, being more obvious in polytechnics (Santiago and Carvalho 2008). Since the middle of the 1990s when the market and managerialism started to have an impact on the higher education system (Amaral et al. 2003; Santiago et al. 2005), local recruitment outside traditional academic pathways has become a common practice (Santiago and Carvalho 2008).

Even if most respondents (94.4%) were full-time, Table 10.5 shows that in terms of the duration of the contract, a percentage of the academics in our sample are

Table 10.4 Academic rank

Academic rank	CAP sample		Official data (MCTES 2005)	
	<i>N</i>	%	<i>N</i>	%
<i>University</i>				
Full professor	89	11.1	1,089	7.7
Associate professor	130	16.2	1,911	13.5
Auxiliary professor	414	51.6	4,150	29.3
Assistant	79	9.85	2,548	17.9
Others	90	11.2	4,326	31.6
Total	802	100	14,164	100
<i>Polytechnic</i>				
Coord. professor	44	12.32	597	6
Adjunct professor	129	36.13	2,010	19.9
Assistant	35	9.8	1,013	10
Others	149	41.74	6,506	64.1
Total	357	100	10,116	100

Table 10.5 Duration of the contracts

	<i>N</i>	%
Tenured	545	47.2
Fixed-term/tenure track	249	21.6
Continuously employed (no guarantee of permanence)	34	2.9
Fixed-term employment (no continuous employment prospects)	275	23.8
Other	52	4.5
<i>Total</i>	1,155	100

fixed-term with no permanent employment or guarantee of continuous employment (23.8%). Few are also continuously employed (2.9%), but with no guarantee of permanence. Before the middle of the 1990s, this was uncommon in Portuguese higher education institutions.

For those academics, the opportunity to enter in tenure track and to obtain a permanent tenure position is limited, namely, in the polytechnic subsystem (Santiago and Carvalho 2008). When the two groups are compared, the proportion of tenured or in tenure track from universities is higher (52.1 and 26.6%) than of those academics from polytechnics (33.9 and 8.4%), being the opposite in the fixed-term employment without permanent/continuous employment prospects (universities, 14.7%; polytechnics, 48.7%). As expected, 85.4% of senior academics are permanently employed, and 64.1% of juniors have fixed-term employment without permanent/continuous employment prospects. On the other hand, 41.4% of the academics whose interest is primarily in teaching have fixed-term employment without permanent/continuous employment prospects. It is interesting to note that academics in the discipline of law (50%) are more likely to have fixed-term employment, this being the highest percentage among all disciplines.

Still, on average, academics perceived that they were spending more hours per week on teaching (mean = 20.3) than on research (mean = 13.4). Nevertheless, the high value of the standard deviation (9.773 for teaching; 9.857 for research) demonstrates that there was high variability inside each activity for the time academics allocated to it. Academics also spent 2.76 h on services (clients or patients, unpaid consulting, public or voluntary services), 5.82 on administration (committees, meetings, paperwork) and 3.76 on other academic activities. During the teaching period, 46.9% of CAP respondents spent 11–20 h on teaching, 48.7% spent 1–10 h in research, 68.4% spent 1–10 h on administration work and 72.1 and 54.4% said they did not spend any time on, respectively, services and other academic activities. On the other hand, when there were no classes, the time spent on teaching and research underwent a significant change: CAP respondents spent more time on research (27% spent 11–20 h and 26.6% spent between 21 and 30 h per week) than on teaching (64.2% spent up to 10 h). Academics from universities tended to spend more hours on research than their counterparts from polytechnics. No gender differences were found.

These results are consistent with the preferences expressed by academics in relation to their professional interests: 44.2% said they preferred both activities (teaching and research), but leaning towards research, while 39% leaned more to teaching. 9.1% of the CAP respondents preferred primarily research, and 7.7% preferred primarily teaching. Nevertheless, the way academics perceived their work and other activities seems to be balanced in general terms. The preferences and interests of academics in this study reflect previous findings. But, there was a slight tendency to prefer research over teaching. On the other hand, 25.9% reported that they were interested in both teaching and research. Only a minority had a preference primarily for teaching or research. Once more differences can be found in comparing academics from universities and polytechnics ($\text{sig}=0.003$). The former (universities, 35.9%; polytechnics, 27.4%) emphasise more research towards teaching when they declare that both teaching and research are the subjects of their preferences and interests, while the latter (polytechnics, 37.1%; universities, 25%) prefer teaching to research.

The statistical differences ($f=5.810$; $\text{sig}=0.000$) between academics from universities and polytechnics related to hours per week spent on research. The former spent about 14 h per week (std. 9.794) in research activities and the latter 9.4 (std. 7.541). The main objectives assigned to each subsystem – research emphasis in universities and the more vocational characteristics in polytechnics – can explain, at least partially, this difference in time devoted to research. Also, gender differences were evident. On average, female academics devote more time per week to teaching (21 h) than male academics (18.7 h), a difference that is statistically significant ($f=2.054$; 0.8).

These results confirm the recent international outputs (RIHE International Seminar Reports 2008), since academics have the perception that they allocate more time to teaching than to research, administration or services (Santiago et al. 2009). Although the managerial pressures on Portuguese academics to be more productive in research and the centrality of this activity to promotions in the academic rank, career teaching is still dominant in terms of the proportion of the academic workload (Carvalho and Santiago 2008, 2010a).

10.5 Academic Job Satisfaction

10.5.1 Overall Job Satisfaction

When the Portuguese CAP respondents were asked to rate their overall satisfaction with their current job, even though most (51.4%) considered themselves highly or even very highly satisfied, it placed Portugal among the countries with lower levels of overall satisfaction. In fact, only South Africa showed a lower level of overall satisfaction among academics (47.4%), compared with Germany where 87.1% of academics were highly or very highly satisfied with their job (International Database of the CAP Project). On the same line, Lacy and Sheehan (1997) analysed aspects of academics' satisfaction with their job across eight developed nations – Australia, the USA, Germany, Canada, Mexico, Israel, Sweden and the UK – concluding that regarding overall satisfaction, around 60 percentage of academics in Sweden and the USA were satisfied, compared with their counterparts in Mexico, Germany, the UK and Australia, where fewer than 50% were satisfied. Similarly, Oshagbemi (1999) found that, regarding overall satisfaction, more than half of individuals surveyed indicated they were satisfied with each of the following five aspects of its work – teaching, co-workers' behaviour, research, physical conditions/facilities and head of units' supervision. Also Suzanne Clery (2002), reporting on the National Survey of Postsecondary Faculty (NSOPF), found that most faculty members were satisfied with their jobs. Likewise, Oshagbemi (1997) investigated the job satisfaction characteristics of UK academics finding that happy and satisfied workers formed a good percentage of the workforce in higher education.

Returning to the CAP survey data, male respondents seemed to be more satisfied with their profession than women (60.1% of men and 48.5% of women were highly or very highly satisfied). In fact, Portuguese women (48.6% compared with 86.2% of Mexican women) were least satisfied when compared with their international counterparts (only the UK had a lower percentage of satisfied women 45.8%). This is contrary to other findings that female workers tend to be more satisfied than men, while female academics compared to their male counterparts show similar levels of satisfaction (Clark 1997; Clark et al. 1996; Sloane and Williams 1996a, b, cited in Ward and Sloane 2000; Santhapparaj and Alam 2005; Stevens 2005).

Portuguese CAP respondents with higher levels of overall job satisfaction come from law (88.9% were highly and very highly satisfied), and the least satisfied were from business and administration and economics (24.5% were highly and very highly satisfied) and social and behavioural sciences (24.4%). Seifert and Umbach (2008) analysed the effects of discipline on dimensions of job satisfaction, concluding that these were less clear.

Senior academics appeared to be more satisfied with their profession (64.3% were highly or very highly satisfied compared with 44.4% of the junior academics and 51.9% who were at an intermediate level), while the junior academics seemed to be less satisfied (27.8% were low or very low satisfied, compared with 10.9% of the seniors and 15.7% of those at intermediate level). These findings reflect those of

Stevens (2005) who analysed the job satisfaction of academics using a dataset of over 2,000 academics from ten English higher education institutions and found that professors and senior lecturers were on the whole more satisfied with their jobs than lower ranked academics.

Another issue evaluated was perceptions of the evolution of the overall working conditions in higher education and research institutes, since CAP respondents started their careers. Bearing in mind the conditions in the higher education system, 42.8% of the CAP respondents considered that they had been deteriorating (deteriorated or very much deteriorated), while 33%, on the other hand, believed that they had been improved (or very much improved). In the case of research institutes, the figures show an inverse trend, whereas 38.9% of CAP respondents considered that the overall working conditions in research institutes had improved (or were very much improved) and only 28.6% had the opposite opinion. Once again, Portugal was among the five countries with the lowest satisfaction in relation to overall working conditions in higher education. However, when it comes to satisfaction with the overall working conditions in research institutes, Portugal appears among the most satisfied, along with Malaysia (48.8%) and Mexico (46.9%).

Male academics considered working conditions in higher education very much improved (of those who believed that conditions in higher education had very much improved, 65% were men), compared with their female colleagues. Therefore, academics from universities tended to consider that there had been improvements in the working conditions in higher education (36.5% of university respondents compared with 27.2% of respondents from polytechnics), and academics from polytechnics tended to consider that they had deteriorated (or very much deteriorated) (44.9% from polytechnics and 41% from universities). Interestingly, academic staff members with the shortest careers considered that their working conditions in higher education had deteriorated (20% of junior academics, comparing with 6.4% of the seniors). On the other hand, academics with a preferential interest in research considered that working conditions in higher education had deteriorated more (55% vs. 37.3% of those whose interests were primarily in teaching). Academics from engineering, manufacturing and construction and architecture were those who considered their working conditions had improved (43.2%), and the academics from humanities and arts were those who considered their working conditions had deteriorated (54.8%).

Those in research institutes who tended to consider that working conditions had improved were academic males (42.6%), from universities (44.4%), senior academics (57.2%), those with a preference for both teaching and research, but leaning towards research (45.4%), and those from physical sciences (47.5%) and engineering (48.5%).

10.5.2 Physical Job Satisfaction

When the analysis focused on the 'physical' job satisfaction, Portuguese CAP respondents seemed to be very satisfied, particularly with telecommunications (with 69.8% of respondents considering them good or even excellent), computing facilities (59.3%) and office space (57.4%). In general, 56.9% of respondents were

satisfied with the physical infrastructure. These findings contrast with those of Ssesanga and Garrett (2005) who analysed the factors influencing academic satisfaction and dissatisfaction in two universities in Uganda, finding that academics were dissatisfied with physical facilities, among other aspects.

Concerning service provision, four items were evaluated: technology for teaching, secretarial support, teaching support staff and research support. Portuguese CAP respondents were less positive than in the latter case. In fact, they seemed very unsatisfied mostly with research support (61.1% considered it poor or very poor), teaching support staff (44%) and secretarial support (38.8%). Overall, only 31.3% seemed to be satisfied with service provision, while 40.9% were dissatisfied.

The evaluation of facilities, resources or personnel needed to support the teaching activity showed different levels of academic satisfaction, but the overall satisfaction with this area was positive, since 43% of respondents evaluated them as being excellent or good. In fact, 51.5 and 50.1% of CAP respondents were very satisfied with the classrooms and technology for teaching, respectively. On the other hand, 44% considered the teaching support staff as poor or very poor. Of the Portuguese CAP respondents, 48.8% evaluated the library facilities as being excellent or good, and 26.5% evaluated the laboratory facilities as poor or very poor. The same evaluation of facilities, resources or personnel needed to support the research activity showed levels of academic satisfaction much more negative than in teaching activity (52.4% of CAP respondents were dissatisfied). Moreover, Portugal is one of five countries with academics who are more dissatisfied with regard to this area. In fact, most Portuguese CAP respondents were very dissatisfied especially with research funding and with the research support staff (63.2 and 61% considered them poor or very poor, respectively). For instance, regarding research funding, authors such as Rhodes et al. (2007) found that one of the job facets perceived by the academics to be deeply dissatisfying was the requirement to secure external research funding. Opinions were divided about the evaluation of the research equipment, since 33.5% considered it excellent or good, 34% medium and 32.5% thought that it was poor or very poor.

Analysing gender differences, male academics were more satisfied than women with computer facilities (50.3% considered them excellent or very good compared with 38.7% of the female academics) and telecommunications (60.7% of the male academics were satisfied *versus* 50.4% of their female counterparts). Portuguese academic women were the second most satisfied (2.9 on a composite index), whereas male academics were among the five countries most unsatisfied.

On the other hand, when the analysis focused on the differences between the two subsystems, academics from universities were more satisfied with the research equipment and instruments (36.1% of academics from universities and 26.6% of academics from polytechnics), as with telecommunications (61.1% of academics from universities and 48.2% of academics from polytechnics), than the academics from the polytechnics. These results can be explained by the more vocational nature of the polytechnics, while universities emphasise research. Moreover, more senior academics tended to be more satisfied than their colleagues in most of the items analysed, with the exception of secretarial support: 43.8% of the senior staff considered secretarial support to be poor or very poor, while fewer junior staff were dissatisfied: 33.1%.

10.5.3 Influence Versus Satisfaction

On the basis that influential academics are happy academics, the analysis of the Portuguese CAP data allows a composite index to be developed based on CAP survey questions. The index is built on a five-point Likert scale that evaluates academics' perception of their personal influence in helping to shape key academics' policies. In general, the distribution of this composite index is very balanced, with nearly identical values between those who consider themselves influential and those who actually believe that they have little or no influence in helping to shape key academic policies. On an international comparison, Portugal is among the three countries whose academics considered themselves less influential.

The analysis of each variable integrated onto the above composite index gives us different information. In fact, Portuguese academics consider themselves influential (very or somewhat influential) at the department level (52.4%), but, on the other hand, they feel they have little or even no influence at all at either faculty/school level and institutional level. The majority of CAP respondents agree (or strongly agree) that lack of academic staff involvement is a problem (53.1%); nevertheless, they consider that the administration supports academic freedom.

While no considerable differences were found in comparing gender or subsystems, the same was not true when analysing seniority. As expected, senior academics consider themselves more influential than other colleagues especially at the faculty/school level (71.4% vs. 19.8% of the junior academics).

10.5.4 Support Versus Satisfaction

On the assumption that perceived support will lead to academic job satisfaction, some institutional attributes were analysed in order to understand how Portuguese academics rated their relationship with the institution where they work. CAP respondents tended not to have strong views, and they neither agreed nor disagreed. The exception was the general agreement (58.4% agreed or strongly agreed) with the idea that there was a cumbersome administrative process in their institution. On the other hand, 71.7% of CAP respondents disagreed (or strongly disagreed) that their institution actually promoted the professional development for administrative/management duties for individual academics. Furthermore, while 55.4% disagreed (or strongly disagreed) that their institution had a supportive attitude towards research, only 27.8% of them agreed that it had a supportive attitude towards teaching.

The results of another composite index based on a selected set of CAP survey questions analysed the support items as a whole. There were 31.3% suspended opinions and 49.6% of respondents that tended to disagree that the institution provided support, placing Portugal among the three countries in which academics consider they have less support from their institution.

It is interesting to note that senior academics tended to agree more that their institutions provided support, while junior academics tended to disagree.

10.5.5 *Would They Do It Again?*

Portuguese CAP respondents are almost divided concerning if this is a poor time for a young person to begin an academic career. Thus, 40.5% agree (or strongly agree) about to start an academic career now, and on the other side, 35.8% disagree (or strongly disagree). Surprisingly, if they had to do it over again, they would become once more an academic (61.7%). Apart from the percentage of opinions suspended (25.5% neither agree nor disagree), 46.1% of respondents agree (or strongly agree) that academic jobs are a source of considerable personal strain. This is according to the findings of Barnes et al. (1998) that a predictor of academics' intention to leave academia was a sense of frustration due to time commitments. Despite this positive note, Portugal is one of the five countries from the CAP survey with academics being least confident about their professional future.

10.6 Some Conclusions

Dunkin (2005, p. 1) argues that '(...) the critical input to a successful university is its people – their knowledge, expertise and skills and the extent to which they are engaged with the academic and/or administrative processes of the university and their discipline'. In this context, the importance of academic staff as a constituent group in higher education institutions is undeniable.

This chapter examined the personal characteristics of Portuguese academics and related them to job satisfaction. The existence of a binary system of universities and polytechnics has shaped the Portuguese academic career, which does not have a unified structural composition, but is rather fragmented due to the diverse nature of each subsystem (Santiago and Carvalho 2008). Nevertheless, careers in both subsystems have a bureaucratic-driven logic and are highly segmented in a pyramidal way (Santiago and Carvalho 2008). Academic careers in polytechnics tend to be less stable and precarious than in those in universities.

When the two groups are compared, the proportion of tenured or in the tenure track in universities is higher than for academics in polytechnics where fixed-term employment without permanent/continuous employment prospects is prevalent. Regardless of the subsystem, academics perceived that they were spending more hours per week on teaching than research, but those in universities reported that they devoted more hours to research than those in polytechnics. In relation to their preference expressed with regard to focus of professional interest, there were differences between academics from universities and polytechnics. The former emphasised research in preference to teaching when they identified both teaching and research, while the latter preferred teaching to research. Moreover, there were considerable differences between academics from universities and polytechnics related to hours per week spent on research. The former spent more hours per week in research activities compared to the latter. The main objectives assigned to each subsystem – research emphasis in universities and the more vocational characteristics of polytechnics – can

explain, at least partially, the difference in time devoted to research. Although there was a difference in academic job satisfaction from either side of the binary divide, academics from universities tended to consider that working conditions in higher education had improved, while academics from polytechnics tend to consider that they had deteriorated. Similarly, academics from universities were more satisfied with research equipment and instruments and telecommunications than academics from polytechnics. These results can be explained by the more vocational nature of the polytechnics, while universities emphasise research.

The findings of this research indicate the gendering of the Portuguese academic career. Along with horizontal segregation (see Carvalho and Santiago 2008), vertical segregation persists in the Portuguese higher education system. Women are still under represented in top academic rankings, while the representation is more balanced at lower levels (auxiliary professor in universities and adjunct professor in polytechnics). But the question remains: are there differences in job satisfaction based on gender? Although there have been numerous studies on job satisfaction, relatively little empirical data have been gathered on job satisfaction of university teachers and very little still on gender differences (Okpara et al. 2005).

The study of gender differences in higher education and, in particular, gender differences in job satisfaction of academics is very important. This present study can provide institutional leaders with information that will enable them to recruit and retain academic staff, improve their job satisfaction, improve the organisational commitment and decrease turnover and absenteeism.

The analysis of personal characteristics, affiliation, commitment and careers trajectory of the Portuguese academics in this study does not differ substantially from some other countries (See RIHE International Seminar Reports 2008). However, future analysis of academic job satisfaction needs to consider the impact of the market and *managerialism* on the academic profession and professionalism (Santiago et al. 2009), using gender, types of institution, age and discipline as the main variables to examine the changing 'profile' of Portuguese academics.

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Chapter 11

The South African Academic Profession: Job Satisfaction for a Besieged Profession?

Charl C. Wollhuter

This chapter investigates the job satisfaction of academics in South Africa using data procured by means of the international Changing Academic Profession (CAP) survey of the academic profession. While on aggregate South African academics are mildly satisfied with their profession, they do feel that working conditions in higher education are deteriorating. It is also disturbing that one-third indicated that they would not enter the profession if they could have it all over again. Academics feel the stranglehold of managerialism. The differences in male–female job satisfaction and between teacher-oriented and research-oriented academics point to the persistence of the historical organisational set-up and cultures of South African universities. All these should be subjected to follow-up research as a basis for rectification.

11.1 Introduction

In the competitive globalised world, and in the rising knowledge society and knowledge economy, higher education in South Africa is of pivotal importance just as it is elsewhere in the world. Any education sector can only be as good as its teaching corps (the customary metaphor is ‘a stream of water cannot rise higher than its source’); therefore, the well-being of the academic profession is of critical importance for any higher education system.

Urban legends of the South African academic profession are not out of touch with Teichler’s (2009:58) allegation: ‘We hear not only stories about ascetic hardworking academics, but also of those who spend half of the year gliding across their yacht’.

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The aim of this chapter is to assess the job satisfaction of the South African academic profession, using the results drawn from the Changing Academic Profession (CAP) survey.

11.2 Contextual Background Factors That Have an Impact on the South African Academic Profession

Salient societal forces that have an international impact on the academic profession are globalisation; the information, communication and technological revolution; the neo-liberal economic revolution; and democratisation (Wolhuter et al. 2010). These factors are all active in South Africa. On top of these, South African higher education is also under the influence of the national context, where it is both the subject of fundamental reforms and has been selected (by government and by society) to be an agent for the accomplishment of the desired societal reconstruction. After 1994, the government took a decision to build an education system upon the principles of desegregation, equal opportunities, decentralisation, democratisation and multiculturalism (Wolhuter 1999). The education system was also regarded as being instrumental in realising a whole set of economic, social, political and cultural goals (*cf.* Wolhuter et al. 2010).

Driven by the above policy, an explosion of higher education enrolments is currently taking place. From 1994 to 2006, the number of students at South African universities increased from 495,355 to 741,380 (UNESCO 2009), and the Minister of Education has set the target of an additional 100,000 in the near future (Rademeyer 2007). One consequence is that universities have been flooded with poor quality students. Since 2005, media reports on the poor performance of first year students at South African universities appear regularly (e.g. *cf.* Rademeyer 2009; Dibetle 2009). Student attrition rates at South African universities are high. A mere 11 and 43% of respectively Black and White students of economic sciences complete their degrees within the prescribed time (Gower 2008).

Historically, South African universities were primarily teaching institutions that conceptualised their mission as the production of high-level human resources for a developing economy (*cf.* Sutherland and Wolhuter 2002). However, since the introduction of a new government subsidy formula in 1984, which made state funding of universities contingent upon their research output, academics have been under ever-increasing pressure to increase their research outputs.

Born out of a tradition of the British universities' liberal studies, South African universities traditionally had an ivory-tower character. Consequently, community service did not rank highly on the agenda of South African academics. This, however, has changed in recent years. As the worldwide trend of relevance came to influence higher education in South Africa too, community service is now expected from academics.

The ambitious internal and external goals which government is pursuing by means of higher education have resulted in the termination of the autonomy enjoyed by universities in the pre-1994 era (Wolhuter et al. 2011). A battery of government directives has come pounding down upon universities the past decade and a half (*cf.* Van der Walt et al. 2010), replicated by an equally forceful bureaucratic hierarchy which was created within universities (*cf.* Ntshoe et al. 2008).

The neo-liberal economic revolution and its attendant demand that universities be run on business principles, also led to the expectation that academics should be entrepreneurs. This led to many academics compiling and presenting short courses and also to a new Intellectual Property Act. This Act requires every South African university to establish a technology transfer office which would ensure that, as the Act puts it, intellectual property which was developed with public funds should not lie dormant, but should be employed to the benefit of all South Africans, by means of patenting and commercialisation by entrepreneurs (Terblanche 2009).

Although data are not readily available, it could be expected that the influx of students would have a negative influence on the physical infrastructure of universities.

Analysis of CAP data shows that South African academics are poorly paid compared with bank managers, chief executive officers, psychologists or radiologists for example (Wolhuter et al. 2010:151).

It could surely be hypothesised that the above avalanche of changes not only increases the work pressure and stress of academics, and complicates the academic working environment, but also that it has an adverse effect on the job satisfaction of the profession.

11.3 Research Method

A representative sample of 800 academics attached to South African universities completed the questionnaire of the international CAP survey. Among other things, this survey allows for an investigation into the job satisfaction of the South African academic profession. Responses to questions pertaining to job satisfaction are reported in aggregate, as well as broken down in terms of:

- Academic field/discipline of respondents
- Post level of respondents
- Teaching-research orientation of respondents
- Gender of respondents
- Age of respondents
- Years of employment in higher education

11.4 Findings

11.4.1 Overall Job Satisfaction

Respondents were asked to rate their overall satisfaction with their current jobs and were asked to respond on a five-point scale ranging from 1 – very high to 3 – neutral to 5 – very low. The aggregate response was 2.6. The aggregate frequency distribution of answers is shown in Table 11.1.

Table 11.2 summarises the attitudes of South African academics according to their overall job satisfaction: discipline, level of post, interest in teaching or research, gender and age.

The overall job satisfaction of South African academics (aggregate) tends to be moderately high on average. The averages of all disciplinary fields range between 2 and 3, that is, high and neutral. Job satisfaction increases with rank, but at management level (director), it decreases again. Academics who are more interested in teaching are more satisfied than those who are more inclined to research. Female academics are more content than male academics. Job satisfaction decreases with age (the reversal of this trend for the 61-year-plus group might be ascribed to the fact that many of those in this group are emeriti who voluntarily stayed on after retirement age, in positions and assignments of their liking). No correlation (Pearson=0.07) could be found between years of employment in higher education and overall job satisfaction.

11.4.2 View on Changes in Working Conditions

Respondents were asked, ‘Since you started your career, have the overall working conditions in higher education improved or deteriorated’ and were asked to place their response on a five-point scale, ranging from 1 – very much improved, to 5 – very much deteriorated. The average response of South African academics was 3.3. The frequency distribution of responses is shown in Table 11.3.

Table 11.4 summarises the attitudes of South African academics about change in their working conditions in higher education institutions according to their discipline, level of post, orientation towards teaching or research, gender and age.

Table 11.1 Aggregate frequency distribution of responses of South African academics to the question: ‘How could you rate your overall satisfaction with your current job?’

<i>Percentage distribution of responses</i>				
1	2	3	4	5
Very high	High	Neutral	Low	Very low
12	39	29	12	8
High		Neutral	Low	
51		29	20	

Table 11.2 Overall job satisfaction of South African academics, various attributes

Attribute	Average response on five-point scale 1 – Very high; 5 – Very low
Overall	2.65
<i>Discipline/field</i>	
Life sciences	2.00
Law	2.34
Education	2.47
Engineering, architecture	2.50
Social and behavioural sciences	2.59
Physical sciences, mathematics, computer sciences	2.67
Humanities and arts	2.71
Agriculture	2.73
Medical sciences, social services	2.80
Business, administration, economics	2.87
<i>Level of post</i>	
Director	2.68
Postgraduate academic assistant	2.72
Researcher	2.70
Principal lecturer	2.61
Head of division	2.39
Chief programmer	2.55
Technician	2.33
<i>Primary orientation</i>	
Teaching	2.71
Research	2.53
<i>Gender</i>	
Male	2.64
Female	2.60
<i>Age group</i>	
20–30 years	2.41
31–40 years	2.59
41–50 years	2.61
51–60 years	2.74
61+ years	2.57

Table 11.3 Frequency distribution of responses to the question: Since you have started your career, have the overall working conditions in higher education improved or declined?

Percentage distribution of responses				
1	2	3	4	5
Very much improved				Very much deteriorated
4	19	33	28	16
Improved		Neutral	Deteriorated	
23		33	44	

Table 11.4 Responses of South African academics to the question ‘Since you started your career, have the working conditions in higher education improved or deteriorated?’ various attributes

Attribute	Average response on five-point scale
	1 – very much improved; 3 – neutral; 5 – very much deteriorated
<i>Discipline/field</i>	
Life sciences	2.89
Law	3.61
Education	2.94
Engineering, architecture	3.32
Social and behavioural sciences	3.24
Physical sciences, mathematics, computer sciences	3.71
Humanities and arts	3.41
Agriculture	3.91
Medical sciences, social services	3.31
Business, administration, economics	3.74
<i>Primary orientation</i>	
Teaching	3.33
Research	3.37
<i>Gender</i>	
Male	3.38
Female	3.32
<i>Age group (years)</i>	
20–30	2.80
31–40	3.29
41–50	3.37
51–60	3.50
61+	3.40

To summarise, the general (aggregate) feeling among South African academics is that higher education employment conditions have deteriorated since they started their careers. No pattern between the view of academics in the various disciplinary fields or academics on various post levels could be found. No significant correlation between years employed in higher education and view on change in working conditions in higher education could be found. Other than that, patterns are similar to that of their job satisfaction in general. Those who regard themselves as researcher are of the opinion that working conditions have deteriorated more than those who see themselves primarily as teachers (although both groups expressed the view that working conditions have declined) and males stronger than females. With age opinion as to changes deteriorating becomes stronger, to reverse with the 61-year-plus group. Only the under 30-year-age group is of the opinion that working conditions have improved since the inception of their academic careers. No significant correlation (0.168) could be found between years of employment in higher education and view on change in higher education employment conditions.

Table 11.5 Physical job satisfaction: variables

Physical infrastructure	Classrooms Computing facilities Office space Telecommunications
Service provision	Technology for teaching Secretarial support Teaching support Research support
Teaching-related infrastructure	Classrooms Technology for teaching Teaching support staff Laboratories Library facilities
Research-related infrastructure	Research equipment Research support staff Research funding

Table 11.6 South African academics' physical job satisfaction

Component of physical job satisfaction	Average response on five-point Likert scale
Physical infrastructure	2.50
Service provision	3.18
Teaching-related physical infrastructure	2.84
Research-related physical infrastructure	3.17

11.4.3 Physical Job Satisfaction

South African academics in the CAP survey were asked to consider their satisfaction with a number of physical attributes. These attributes were built up from individual questions in the CAP survey (Table 11.5).

Respondents were asked how satisfied they are with several following factors and to respond on a five-point Likert scale, ranging from 1 – excellent; 3 – neutral; 5 – poor. The aggregate responses with respect to these components of physical job satisfaction are presented in Table 11.6.

The physical job satisfaction of South African academics, as per disciplinary field with classrooms, technology for teaching and research equipment and instruments is shown in Table 11.7.

Correlations between the above measures of physical job satisfaction and years of employment in higher education were insignificant. Correlations between years of employment in higher education and satisfaction with classrooms, technology of teaching and research equipment and instruments were respectively 0.06, -0.02 and 0.01.

Table 11.7 Physical job satisfaction of South African academics, various attributes

Attribute	Mean answer on five-point scale 1 – excellent; 3 – neutral; 5 – poor		
	Classrooms	Technology for teaching	Research equipment and instruments
Life sciences	2.33	2.67	2.78
Law	2.96	3.00	2.65
Education	2.41	2.50	2.68
Engineering, architecture	2.55	2.50	3.06
Social and behavioural sciences	3.11	3.09	3.16
Physical sciences, mathematics, computer sciences	3.17	3.05	2.87
Humanities and arts	2.87	2.93	2.99
Agriculture	3.7	3.50	3.91
Medical sciences, social services	3.39	3.46	3.22
Business, administration, economics	3.06	2.93	3.05
<i>Level of post</i>			
Director	2.68	2.83	2.90
Postgraduate academic assistant	2.91	3.08	3.03
Researcher	2.9	2.92	3.01
Principal lecturer	2.83	2.63	3.00
Head of division	2.71	2.72	2.69
Chief programmer	3.13	2.63	2.50
Technician	3.33	4.00	4.00
<i>Primary orientation</i>			
Teaching	2.89	2.93	3.00
Research	2.83	2.86	2.86
<i>Gender</i>			
Male	2.77	2.80	3.00
Female	2.93	2.97	2.82
<i>Age group (years)</i>			
20–30	2.51	2.51	2.51
31–40	2.76	2.91	2.93
41–50	2.94	2.94	2.98
51–60	2.92	2.90	2.94
61+	2.87	2.84	2.98

On aggregate, members of the South African academic profession are moderately satisfied with the physical infrastructure at their institutions. Breaking down the responses per disciplinary field once again yielded a very chequered pattern defying generalisations, except that, on all three scores used, academics in agriculture faculties are moderately dissatisfied with physical infrastructure at their institutions and stand out in marked contrast to their colleagues in other fields. Gender-wise, female academics are more satisfied with research infrastructure but less with teaching infrastructure than their male counterparts are. Academics who are primarily interested in research are more satisfied than their colleagues with stronger teaching inclination, with regard to both research and teaching infrastructure. Regarding

Table 11.8 South African academics' responses to the question 'How influential are you, personally, in helping to shape key academic policies?'

Level	Mean response on four-point scale
	1 – very influential; 2 – somewhat influential; 3 a little influential; 4 – not at all influential
At the level of department or similar unit	2.3
At the level of faculty or similar unit	2.9
At the institutional level	3.5

these post level and age breakdowns, patterns are the same as with job satisfaction on the whole: satisfaction with physical infrastructure increases with post level but declines again at the rank of director. Satisfaction with physical infrastructure decreases with age but increases again in the 61-year-plus age group.

11.4.4 Experience of Influence and Job Satisfaction

On the assumption that academics who feel they are influential and are in control of their own environment, responses to several questions in the CAP questionnaire have been included in this chapter. Observations about the results summarised in the next few tables are made after Table 11.10.

Academics were asked how influential they are, personally, in helping to shape key academic policies at each of the following levels:

- At the level of department or similar unit
- At the level of faculty, school or similar unit
- At the institutional level

and to respond to each of the three on the following four-point scale:

1. Very influential
2. Somewhat influential
3. A little influential
4. Not at all influential

The mean aggregate responses to each of the three levels are presented in Table 11.8.

Respondents were also asked to indicate agreement/disagreement with the following statements:

- At my institution, top-level administrators are providing competent leadership
- I am kept informed about what is going on at my institution
- Lack of faculty involvement is a real problem
- The administration supports academic freedom

and to respond on the following five-point semantic differential scale:

1. Strongly agree
2. Agree

Table 11.9 South African academics' experiences of management practices at their institutions

Question	Mean answers on five-point scale
	1 – strongly agree; 3 neutral; 5 – strongly disagree
At my institution, top-level administrations are providing competent leadership	3.3
I am kept informed about what is going on at my institution	3.1
Lack of faculty involvement is a real problem	3.0
The administration supports academic freedom	3.3

3. Neutral
4. Disagree
5. Strongly disagree

The aggregate responses of South African academics are presented in Table 11.9.

Mean responses to question: how influential are you, personally, in helping to shape key academic policies, at each of the following levels:

Mean responses on four-point scale

1 – very influential; 2 – somewhat influential; 3 – a little influential; 4 not at all influential (Table 11.10)

No significant correlations could be found between years of employment in higher education and feelings of influence at departmental ($r=0.11$), faculty (-0.09) and institutional (-0.02) levels.

On aggregate, South African academics feel somewhat influential at departmental level, a little influential at faculty level and not at all influential at institutional level. They do not feel that top-level administrators are providing competent leadership, nor that they are kept informed on what is going on at their institutions or that administration supports academic freedom.

Academics in education faculties feel less influential than academics in other fields. Interestingly, academics at mid-level management (directors) feel less influential than academics at other levels. Researchers feel more influential than teachers, and male academics feel more influential than female academics. There is a tendency to feel more influential with age, but no relation between feelings of influence and years of service in higher education could be found.

11.4.5 Support for Teaching and Research Activities

Respondents were asked whether there is, at their institutions:

- A supportive attitude of administrative staff towards teaching activities
- A supportive attitude by administrative staff towards research activities and to respond to each question on a five-point semantic differential scale ranging from

Table 11.10 South African academics of various disciplinary fields’ feelings of personal influence

Discipline/field	Level of department or similar unit	Level of faculty, or similar unit	Institutional level
Life sciences	1.88	3.13	3.71
Law	2.29	2.78	3.59
Education	2.49	2.81	3.41
Engineering, architecture	2.61	2.71	3.23
Social and behavioural sciences	1.90	2.75	3.31
Physical sciences, mathematics, computer sciences	2.22	2.98	3.75
Humanities and arts	2.12	3.02	3.65
Agriculture	1.90	2.60	3.30
Medical sciences, social services	2.18	2.72	3.59
Business, administration, economics	2.32	2.91	3.50
<i>Level of post</i>			
Director	2.63	3.23	3.49
Postgraduate academic assistant	2.43	2.96	3.49
Researcher	2.20	2.86	3.46
Principal lecturer	2.02	2.63	3.55
Head of division	1.90	2.51	3.27
Chief programmer	2.06	2.47	3.25
Technician	2.33	3.00	3.67
<i>Primary orientation</i>			
Teaching	2.30	2.92	3.45
Research	2.18	2.80	3.50
<i>Gender</i>			
Male	2.24	2.77	3.41
Female	2.33	2.99	3.57
<i>Age group(years)</i>			
20–30	2.54	2.81	3.81
31–40	2.36	3.07	3.59
41–50	2.30	2.97	3.58
51–60	2.24	2.68	3.43
61+	2.2	2.73	3.48

1 – strongly agree to 3 – neutral to 5 – strongly disagree. The mean responses of the aggregate South African academic profession, to both these two questions were 3.3.

The evaluation of administration’s attitude of support towards teaching and research activities, by academics of various disciplinary fields, is presented in Table 11.11.

Mean responses to question: how influential are you, personally, in helping to shape key academic policies, at each of the following levels:

Mean responses on four-point scale

1 – very influential; 2 – somewhat influential; 3 – a little influential; 4 not at all influential

Table 11.11 South African academics' feelings of personal influence, various attributes

Discipline/field	1 – strongly agree; 3 neutral; 5 – strongly disagree	
	Teaching activities	Research activities
Life sciences	3.38	3.00
Law	3.48	3.50
Education	2.80	3.12
Engineering, architecture	2.75	2.78
Social and behavioural sciences	3.22	3.11
Physical sciences, mathematics, computer sciences	3.66	3.51
Humanities and arts	3.38	3.33
Agriculture	3.64	3.27
Medical sciences, social services	3.38	3.29
Business, administration, economics	3.64	3.70
<i>Level of post</i>		
Director	2.82	2.97
Postgraduate academic assistant	3.29	3.25
Researcher	3.27	3.25
Principal lecturer	3.41	3.34
Head of division	3.48	3.59
Chief programmer	3.16	3.11
Technician	3.00	3.00
<i>Primary orientation</i>		
Teaching	3.27	3.22
Research	3.25	3.34
<i>Age group (years)</i>		
20–30	2.85	2.78
31–40	3.14	3.14
41–50	3.25	3.27
51–60	3.34	3.42
61+	3.42	3.43

No significant correlation between years of employment in the higher sector on the one hand and, on the other, rating of administration's supportive attitude towards teaching ($r=0.13$) and research ($r=0.14$) could be found.

On aggregate, South African academics are not of the view that their institution's administrations have a supportive attitude towards their teaching and research activities. This feeling is present among academics of all fields, with the exception of those employed in the fields of architecture and engineering, where a mildly positive opinion prevails. Researchers have a more negative evaluation on research support than teachers, and teachers a more negative rating on teaching support than researchers. Female academics have a more negative rating than their male colleagues. Broken down per age group, only the younger than 30 years group have a mildly positive rating on both teaching and research support, after 30 years ratings decline as age increases.

11.5 Discussion

Overall, members of the South African academic profession have expressed themselves as being mildly satisfied in their jobs. Male academics are slightly less satisfied than their female counterparts, and academics with a predominantly teaching orientation are slightly less satisfied than academics with a predominantly research orientation. Satisfaction decreases with age, though the process is reversed in the older than 60 years group. Similarly, job satisfaction increases with post level, that is, the more senior the post, the more satisfied incumbents tend to be, also only to be reversed at director level. No covariation between length of time of employment in the higher education sector and job satisfaction could be found, and no systematic pattern between academics in the various academic fields and job satisfaction could be identified. Academics on the entire front of the profession are of the view that working conditions in higher education are deteriorating. Academics are mildly satisfied with physical infrastructure, but not with administrative personnel support. They clearly feel the stranglehold of managerialism: they feel somewhat influential at departmental level, a little influential at faculty level and not at all influential at institutional level. At institutional level they experience top-down, incompetent leadership.

To summarise, to take as litmus test their answer ‘would I choose the academic profession again’, a composite index of responses to the following three statements was calculated based on responses to three questions:

- This is a poor time for any young person to begin an academic career in my field.
- If I had to do it all over again, I would not become an academic.
- My job is a source of considerable strain.

Respondents were asked to respond on a five-point Likert scale ranging from 1 – strongly agree; 3 – neutral; 5 – strongly disagree. The aggregate composite response was 3–4, indicating an opinion just off the disagreement order of neutral. Nonetheless that on composite, 33% indicated agreement (choosing answer options 1 and 2) is cause for concern, especially given the pivotal role assigned to higher education in effecting the envisioned societal reconstruction in South Africa. For the same reason, the pattern of female academics consistently less content than their male colleagues, and research-orientated academics; point to the persistence of historical patterns of male-determined organisational cultures and universities geared for teaching but not for research. Follow-up research aimed at clarifying and rectifying these would be a valuable complement to this study.

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Chapter 12

Satisfaction in Stages: The Academic Profession in the United Kingdom and the British Commonwealth

William Locke and Alice Bennion

The academic profession in the United Kingdom consists of a diverse range of academic staff both in their demographic profile and in the roles they undertake. Often treated as a homogeneous entity, individual academics are positioned within much of the existing literature on United Kingdom governance and management as rational actors, performing largely similar roles and operating on the basis of a core of common academic and collegial values. As we have argued elsewhere, adopting such an approach can be problematic when it comes to explaining changes in the academy (Locke and Bennion 2011). It has also generated a dominant discourse about academics which is preoccupied with loss, alienation and the retreat of ‘the profession’. In this discourse, academics have been proletarianised, their work industrialised and their autonomy eroded, and they have been deskilled. The result, according to this discourse, is that the profession is demoralised, disaffected and disengaged – or worse, excluded – from institutional decision-making.

In an attempt to move beyond this dominant discourse, we have analysed the United Kingdom CAP dataset according to several variables including institutional type, age, gender, professional grade and mode of employment (Locke and Bennion 2009). We have argued that academics differ in their responses to the changes and new influences in higher education – whether this takes the form of active support, compliance, resistance or subversion – and that this might be partly explained by differences in status within academic and institutional hierarchies, subject characteristics and generational differences (Locke 2008). This initial analysis indicated particular differences between academic staff at different stages of their career and

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with different career trajectories. With the expansion of the United Kingdom higher education system, there has not only been an increase in the number of young people entering the profession via the traditional route but also in the number of staff entering the profession at a later stage in their working lives, having already pursued a career in another profession. In this chapter, we focus on these two groups and compare them with their more established counterparts who entered the profession via the traditional route.

12.1 Background: The United Kingdom Context and Key Management Challenges

For our purposes, *the main contextual factors* in the United Kingdom are as follows:

The Legal Independence of Higher Education Institutions, Albeit in a Highly Regulated Environment: United Kingdom higher education institutions are free to employ and dismiss academic staff, set salaries, decide on academic structure and course content, spend their budgets to achieve their objectives and own and dispose of their buildings and equipment. Within certain parameters, they can also decide on the size of student enrolment and borrow money. In England and Northern Ireland, from 2006, higher education institutions were able to determine the level of tuition fees for full-time undergraduate home and European Union students up to a maximum ‘cap’. Tuition fees for part-time, postgraduate and international (non-European Union) students are not regulated. However, despite this legal independence bolstered by increasing levels of private expenditure on higher education, the governments of the United Kingdom still exercise a considerable degree of influence over higher education institutions through the allocation of funding and the conditions attached to this and the regulation and evaluation of their activities. Reforms to the tuition fee and funding arrangements in England from 2012 will see a dramatic increase in the privatisation of higher education. However, the government’s need to limit its liability for student loans and its desire to achieve policy goals, such as widening participation in higher education study to groups of disadvantaged students, may require it to restrain market freedoms.

Increased Vulnerability to the Market and the Privatisation of Activities: Expansion in the numbers of students in the United Kingdom has been accompanied by the gradual privatisation of a mass higher education system which, nevertheless, continues to be dominated by an enduring status hierarchy of institutions. Some higher education institutions with sufficient resources and expertise have responded to incremental changes in government policies with entrepreneurial zeal, but less prestigious institutions, often with more socially orientated missions, have struggled to compete in attracting students, staff and resources. Students and their parents, employers and research users have been encouraged to act like consumers. Yet, they have been ham-

pered by limited information about the value added by specific education and research provision which is all too often obscured by prestige and status (Locke 2010). It remains to be seen whether government attempts to increase the number of private, for-profit, higher education providers in England will significantly disrupt this established hierarchy.

Increased Competition for Highly Skilled Professionals from Other Knowledge-Based Industries: As knowledge economies expand and integrate through globalisation, the demand for highly educated and skilled personnel from outside higher education has grown. Universities compete for staff with schools and colleges, the health sector and other professions such as law and accountancy, business in general and the expanding biosciences and creative industries in particular. The United Kingdom is also increasingly reliant on international academic recruits, particularly for those on research contracts. The current economic crisis is likely to cause shifts in these patterns of recruitment, as some employment sectors (such as financial services) contract and others (such as environmental enterprises) potentially expand when economies emerge from the recession.

Greater Diversity: Including in the Terms and Conditions of Employment of Academics and Other Professional Staff: United Kingdom academics are employees of the institution where they work. All higher education institutions are free to draw up their own standard employment contracts, employ and dismiss academic staff, set their criteria for appointment and promotion and determine the balance between different grades, modes of employment and lengths of contract. The United Kingdom academic profession is becoming increasingly differentiated, even stratified (Locke 2008). The main ‘fault lines’ are between:

- Academics in different types of institution, particularly those that were universities before the abolition of the binary line with polytechnics in 1992
- Those working full and part time
- Those on permanent and fixed-term contracts
- Those on traditional teaching-research-service contracts (52%) and those who are required only to teach (25%) or research (23%)
- Senior (professors and senior lecturers/researchers) and those on junior grades
- The different academic disciplines and fields and, particularly, between science, technology, engineering and mathematics on the one hand and other subjects on the other

Enduring Inequalities in Employment Conditions and Career Prospects (Especially Gender and Race): The more senior the grade, the greater the majority of males and those on permanent contracts. The academic profession in England is an ageing profession with the proportion aged over 50 having risen from 34 to 41% in the last 10 years. The proportion of professors over the age of 50 has risen from 59–66% (HEFCE 2006: 12–13). However, the academic profession in England is not as old as its counterparts in other English-speaking countries. Across the United Kingdom, 40% of academics are female and more than a quarter of these work part time, compared with 16% of male academics, and they are more likely to be on fixed-term

contracts. On average, full-time female academics earn 86% of the pay of their male colleagues (AUT 2005). While female academics hold 41% of all full-time posts in United Kingdom higher education institutions, the proportion of women holding professorial posts is only 16% and senior lecturers and researchers 31% (HESA 2005). About 10.5% of academics are from black and ethnic minority groups, which is similar to the population of black and ethnic minority postgraduates in the United Kingdom population as a whole. However, they tend to be concentrated in particular institutions (Ramsden 2006), and those with United Kingdom nationality are seriously under-represented. Black and ethnic minority academics earn 88% of the pay of their white colleagues, although this gap narrows for those of British nationality (AUT 2005). Only 4.9% of senior academics are from black and ethnic minority groups (HESA 2006).

Within this context, the *key management challenges* for United Kingdom institutions include the following:

Leadership and Governance: (Re-)Engaging Academics in Strategic Decision-Making: The shifts in the balance of governance in United Kingdom universities have been well documented by Middlehurst (2004), Shattock (2001, 2002, 2006) and others. Increasingly 'business-like' management styles have tended to go hand in hand with more corporate-style governance arrangements in higher education institutions, with a reduction in the size of governing bodies, which now feature a majority of external members drawn largely from business sectors. In parallel, academic self-governance has been weakened, the influence of academic senates has declined and the academic community seemingly marginalised. Whether this has brought about a crisis in the governance and management of higher education institutions in which the collegial tradition of dualistic or shared decision-making between academics and other stakeholders has largely been replaced by managerialist corporatism is open to debate (Locke and Bennion 2011). What is increasingly difficult to deny, however, is that many academics themselves feel disengaged from the governance and management of their institutions and alienated from their leadership (Macfarlane 2005, 2006; McNay 2008).

Managing Diversity in the Workforce and in the Activities of the Academic Enterprise: The external pressures on academics and their work are becoming more intense and complex with the continuing expansion of higher education, the increasing demands laid on it by government, students, employers and others and the relative reduction in public funding available per student and staff member. In particular, there are pressures on academics to attract research income and generate publications and citations in high-status academic journals; to recruit, teach and graduate an increasingly diverse range of students; and to maximise the commercial and reputational value of both these core activities. Evidence suggests these external pressures impact differently on particular types of institution and in different ways on academics at various stages in their careers and with different kinds of contracts of employment. Institutions have to respond to these increasing and intensifying external pressures in more rapid and flexible ways, often restructuring schools and facul-

ties and introducing senior tiers of academic management who work horizontally across the institution as well as vertically managing the faculty (Locke and Bennion 2011).

Attracting and Developing Talent: Introducing Flexibility in Employment Without Creating Unfairness: A new framework for modernising pay and conditions for higher education staff, including the majority of academics (but not professors), was introduced in 2004. This was mainly a response to higher education institutions' increased liability to expensive legal battles over equal pay for work of equal value as a result of European Union directives on discrimination in 2000. While this introduced a common pay scale and greater transparency through local job evaluation and role analysis, it also gave impetus to the use of premiums for recruitment and retention where labour market conditions warrant these and pay increases related to individual contributions as part of performance management. There is evidence of the development of several markets for different categories of academic staff, reflecting the areas of most intensive competition between higher education institutions for resources and reputation. These include researchers, academics in professional disciplines, entrepreneurs, fund raisers, those with overall responsibility for overseas student recruitment, academic managers and institutional leaders (Locke and Botas 2009). There are dangers that these developments will further fracture the academic profession between those areas where there is scope for entrepreneurship and commercialisation and those where there is not, introducing further inequity and risking injustice.

12.2 Methodology

This chapter is based on analysis of the CAP international dataset. This chapter aims to focus on the 'attractiveness' of the profession, particularly in relation to job satisfaction. In turn, perceptions of personal influence, institutional management, involvement, support for academic work and physical working conditions are relevant variables. Recognising that academic opinions might vary during the course of an academic career, for the purpose of this chapter, academic respondents have been categorised in three groups: young; mature, recent; and older, established.

The 'young' group represents respondents under the age of 40, the majority of whom have entered the profession via the traditional route direct from formal education, including a Ph.D. and perhaps postdoctoral study. The 'mature, recent' group encompasses academics who are over the age of 40 and have entered the profession within the last 10 years. Many of these academics have had a previous career in another profession. The third group represents 'older, established' academics over the age of 40 who have been in the academic profession for over 10 years. Although this chapter focuses on United Kingdom academics, comparisons are made with two other Commonwealth countries: Australia and Canada (Table 12.1).

Table 12.1 Overview of academic staff

	Young	Mature, Recent	Older, Established	Total ^a
United Kingdom	421 (36%)	380 (32%)	373 (32%)	1,174
Australia	293 (30%)	369 (38%)	319 (33%)	981
Canada	277 (29%)	252 (27%)	413 (44%)	942

^aThese figures are less than the total respondents for each country, as they exclude those who did not provide information about their age or length of time in the academic profession

12.3 Attitudes to the Academic Career

It has been documented elsewhere (Locke 2008) that, compared with other countries participating in the CAP study, job satisfaction among United Kingdom academics appears to be low, with only 45% of respondents describing their overall satisfaction with their current job as high or very high. As illustrated in Table 12.2, young academics appear to be the most satisfied (51%) and the least dissatisfied (14%), while the group of older, established academics appear to be the least satisfied (42%) and the most dissatisfied (21%).

Interestingly, this does not appear to be the case for the other countries reported on here. In Australia, there appears to be little variance among these groups of academics. In direct contrast with the situation described in the United Kingdom, older, established academics in Canada appear to be the most satisfied with their current job situation, and the pattern is that Canadian academics are more satisfied across the three career stage/age groups shown here. The pattern in Australia is also similar across all three career stage/age groups, but lagging the ‘satisfaction’ rating in Canada by 17–20%.

United Kingdom academics demonstrated a much higher level of ‘fence-sitting’ by rating their overall satisfaction as ‘3’ on a 5-point scale. Between 35 and 37% of United Kingdom academics did not describe their overall satisfaction as ‘high’ or ‘low’. This compares with 16–19% of Canadian academics who rated their experience in this way and 24–27% of Australians.

Responses to statements about the academic career support these findings. Respondents from the United Kingdom are more likely than those from other countries to agree with assertions that: ‘This is a poor time for any young person to begin an academic career in my field’, ‘If I had to do it over again, I would not become an academic’ and ‘My job is a source of considerable personal strain’ (Table 12.3). However, among the profession there seems to be considerable variation. Commentators in the United Kingdom contend that there are variations between different groups of academic staff: research-only and teaching staff (Bryson 2004); pre-1992 and post-1992 university staff (Casey 1997); and junior and senior staff (Martin 1999). The data presented here help to refine our understanding, illustrating a complex and diverse picture of satisfaction among the profession.

Similarly, the group of older, established academics in the United Kingdom were more likely to agree with the statements included in Table 12.3. In Canada, the reverse was true, with a higher proportion of ‘young’ academics agreeing with these statements.

Table 12.2 Overall satisfaction with current job, % satisfied or highly satisfied and % dissatisfied or highly dissatisfied

	Young		Mature, Recent		Older, Established	
	Satisfied (%)	Dissatisfied (%)	Satisfied (%)	Dissatisfied (%)	Satisfied (%)	Dissatisfied (%)
United Kingdom	51	14	46	19	42	21
Australia	54	19	56	19	55	21
Canada	71	10	73	10	75	9

Table 12.3 Attitudes to the academic career, % agreeing or strongly agreeing

	United Kingdom			Australia			Canada		
	Y (%)	M, R (%)	O, E (%)	Y (%)	M, R (%)	O, E (%)	Y (%)	M, R (%)	O, E (%)
<i>This is a poor time for any young person to begin an academic career in my field</i>	47	48	59	40	46	52	38	31	36
<i>If I had to do it over again, I would not become an academic</i>	17	24	28	26	18	20	14	11	11
<i>My job is a source of considerable strain</i>	52	60	64	49	49	53	48	41	40

Y young, M mature, R recent, O older, E established

12.4 Institutional Management

According to the CAP survey, United Kingdom academics perceive themselves as having little personal influence in helping shape key academic policies. This seems to mirror the findings of the other countries featured in this chapter. Somewhat unsurprisingly, young academics appear to perceive themselves as having the least personal influence at all three levels of department, faculty and institution. This is likely to be because they are generally employed at a lower grade compared with their mature counterparts (HESA 2009). For those working on lower-grade contracts, involvement in committee work is usually minimal with their main focus being on research and/or teaching responsibilities. Young academics working in Australia perceived their personal influence at departmental or faculty level to be even lower than those working in the United Kingdom. Academics at every career stage reported a higher rate of influence in Canada when compared with the responses of those working in the United Kingdom and Australia (Table 12.4).

Respondents were asked about their views on the management of their own institution (Table 12.5). Older, established academics in the United Kingdom tended to agree most strongly with the following characterisations of their institutions:

'A cumbersome administrative process' (82%)

'A top-down management system' (82%)

'A strong performance orientation' (75%)

Table 12.4 Personal influence, % stating important or very important

	United Kingdom			Australia			Canada		
	Y (%)	M, R (%)	O, E (%)	Y (%)	M, R (%)	O, E (%)	Y (%)	M, R (%)	O, E (%)
<i>Department</i>	34	48	60	28	43	67	56	66	72
<i>Faculty</i>	11	23	30	6	16	32	17	30	45
<i>Institution</i>	3	7	15	3	7	13	3	13	22

Y young, M mature, R recent, O older, E established

'Professional development for administrative/ management duties for individual academics' (46%)

This parallels findings from Australia, whose older, established academics most strongly agreed with the above statements as well as:

'A strong emphasis on the institution's mission' (67%)

'A supportive attitude of administrative staff towards teaching activities' (40%)

'A supportive attitude of administrative staff towards research activities' (40%)

A smaller proportion of academics working in Canada agreed with the two more negative statements included in this question: 'A cumbersome administrative process' and 'A top-down management style'.

The CAP survey asked respondents their views on the administration and faculty involvement in their own institution. Selected results are summarised in Table 12.6. The percentage of those in agreement was generally low across all three countries and fairly consistent across all three categories of respondent. In the United Kingdom, mature, recent academics agreed most strongly with two of the three positive statements: 'Top-level administrators are providing competent leadership' and 'I am kept informed about what is going on at this institution'. This group of academics also most strongly agreed that 'Students should have a stronger voice in determining policy that affects them'. A higher proportion of older, established academics agreed that 'Lack of faculty involvement is a real problem' and 'The administration supports academic freedom'. In Australia, young academics were the most likely group to agree with all three positive statements.

12.5 Support for Academic Work

The CAP survey asked academics to evaluate different aspects of their working conditions. Overall, libraries and telecommunications are viewed very positively by academics in the three Commonwealth countries presented in Table 12.7. Academics from the United Kingdom were the least likely to regard features of their work conditions as excellent or very good. Young academics viewed their working conditions most positively in the United Kingdom, with the exception of 'your office space' and libraries. The picture was rather more mixed in the other countries, although

Table 12.5 Views on management of own institution, % agreeing or strongly agreeing

	United Kingdom						Australia			Canada		
	Y (%)	M, R (%)	O, E (%)	Y (%)	M, R (%)	O, E (%)	Y (%)	M, R (%)	O, E (%)	Y (%)	M, R (%)	O, E (%)
	<i>Good communication between management and academics</i>	31	26	20	26	23	19	26	34	27	26	34
<i>Collegiality in decision-making processes</i>	32	22	17	18	20	18	39	41	36	39	41	36
<i>A strong emphasis on the institution's mission</i>	68	61	66	56	64	67	39	59	53	39	59	53
<i>A supportive attitude of administrative staff towards teaching activities</i>	51	49	37	38	39	40	44	51	49	44	51	49
<i>A supportive attitude of administrative staff towards research activities</i>	49	35	32	35	35	40	40	50	48	40	50	48
<i>A cumbersome administrative process</i>	59	76	82	74	75	81	64	61	65	64	61	65
<i>A strong performance orientation</i>	50	64	73	66	69	74	48	56	46	48	56	46
<i>A top-down management system</i>	65	68	82	66	74	80	47	56	55	47	56	55
<i>Professional development for administrative/ management duties for individual faculty</i>	17	41	46	36	39	39	27	34	32	27	34	32

Y young, M mature, R recent, O older, E established

Table 12.6 Views on administration and academic staff involvement, % agreeing or strongly agreeing

	United Kingdom			Australia			Canada		
	Y (%)	M, R (%)	O, E (%)	Y (%)	M, R (%)	O, E (%)	Y (%)	M, R (%)	O, E (%)
<i>Top-level administrators are providing competent leadership</i>	25	28	24	32	31	32	32	42	41
<i>I am kept informed about what is going on at this institution</i>	41	43	35	48	39	37	41	52	44
<i>Students should have a stronger voice in determining policy that affects them</i>	30	33	27	35	38	33	27	24	22
<i>Lack of academic involvement is a real problem</i>	40	40	46	31	40	43	41	38	39
<i>The administration supports academic freedom</i>	40	38	42	41	37	36	58	64	62

Y young, M mature, R recent, O older, E established

research equipment, secretarial support and research funding were all viewed most positively by young academics.

Table 12.8 presents the responses to a question which asked academics to state how they thought working conditions had changed. Although this question is only really relevant to the group of older, established academics who have been in the profession for over 10 years, it does highlight this group's perception of deterioration. In all the countries featured in this report, a higher proportion of older, established respondents believe working conditions in higher education had deteriorated (Table 12.8). In the United Kingdom and Australia, these percentages were relatively high (80%, 78%) when compared with Canada (46%).

12.6 Summary and Discussion

In summary:

- The United Kingdom and Australia have lower levels of satisfaction and higher levels of dissatisfaction than Canada.
- Of these countries, the United Kingdom is unusual among English-speaking countries in the variation in levels of satisfaction between academics at different stages and trajectories of career with, in particular, young academics being more satisfied and less dissatisfied than those over 40 years.
- British – and particularly Australian – academics perceive themselves as having little personal influence in helping to shape key academic policies. By contrast, respondents from Canada feel much more empowered.
- In the United Kingdom, older, established respondents are more critical of their institution's management and administration than their counterparts. However, they and their mature, recent colleagues are more aware of professional development opportunities for individual academics than younger staff. Australian respondents in general are more critical, and those from Canada less critical than their United Kingdom colleagues.
- Much higher proportions of respondents in the United Kingdom and Australia feel that working conditions have deteriorated than those from Canada. Although this was more pronounced among the older, established academics, substantial proportions of younger academics in these two countries also believe this.

The variations in responses between categories of academics in the United Kingdom may arise from differences of expectation, focus and aspiration and in levels of understanding of the demands of an academic career (Henkel 2000). Younger academics, recent mature recruits and established respondents may be (and have been) attracted by different aspects of the profession, and they certainly experience different levels of job security. Although young academics in the United Kingdom generally appear to be the most satisfied group, how is this going to be maintained if higher education institutions wish to sustain the academic profession?

Table 12.7 Evaluation of facilities, resources or personnel needed to support individual work, % stating excellent or very good

	United Kingdom			Australia			Canada		
	Y (%)	M, R (%)	O, E (%)	Y (%)	M, R (%)	O, E (%)	Y (%)	M, R (%)	O, E (%)
Research equipment	37	32	29	50	39	40	37	36	31
Secretarial support	40	30	27	34	25	22	50	42	44
Research funding	17	14	13	31	19	20	24	19	20
Laboratories	41	36	35	47	38	42	31	33	30
Teaching support staff	39	37	33	29	29	29	34	33	32
Technology for teaching	44	44	34	53	53	54	68	61	59
Classrooms	37	32	30	46	48	50	55	50	47
Research support staff	35	30	26	27	28	22	27	26	27
Telecommunications	53	49	52	68	64	70	70	69	75
Computer facilities	47	40	45	64	59	64	51	53	59
Your office space	46	42	48	58	60	71	65	56	64
Library facilities	48	46	54	77	73	78	56	64	67

Y young, M mature, R recent, O older, E established

Table 12.8 Working conditions in higher education

	Young		Mature, Recent		Older, Established	
	Improved (%)	Deteriorated (%)	Improved (%)	Deteriorated (%)	Improved (%)	Deteriorated (%)
United Kingdom	14	53	13	73	15	80
Australia	11	45	7	68	7	78
Canada	14	27	22	44	26	46

In particular, how can they be encouraged to consider academic management and leadership as a desirable career option, as distinct from building a reputation for high quality research (or teaching)?

It has long been recognised that United Kingdom higher education is experiencing the ‘reluctant manager’ syndrome (Knight and Trowler 2001; Parker 2004), and the findings from the United Kingdom CAP survey support this. Academics are at best ambivalent about adopting management roles or declaring themselves to be potential leaders. Universities increasingly report a shortage of ‘volunteers’ for department head, programme leader, associate dean and even professorial appointments. New reasons for this reluctance keep emerging. An ageing population of academics is facing renewed resource pressures, amid increasing demands for research productivity, knowledge transfer and e-learning, growing international competition, diverse and consumer-savvy students and demanding employers. Furthermore, employment patterns are complex, with a high proportion of staff on fractional and fixed-term contracts for whom ‘leadership’ and ‘management’ roles may be unattainable. Yet the dynamic and increasingly competitive environment for higher education institutions makes effective management and leadership ever more vital at all levels. Academic managers and leaders also need to be able to communicate with diverse audiences and manage partnerships for a variety of purposes.

Many higher education institutions are restructuring their faculties, schools and departments to create large and complex divisions whose managers are called upon to ‘lead’ communities with which they may have little affinity. As the CAP study has already highlighted (Locke 2008), discipline allegiances remain paramount, leading to potential tensions within and between departments and institutions. While over three-quarters of United Kingdom CAP respondents recently considering making a major job change (including leaving higher education altogether), a mere 13% considered staying in higher education and taking on a management role – a change that only 8% had actually tried to make. What is special about this minority group? Indeed, why would anyone want to try to lead their colleagues through the morass of change and uncertainty that is largely not of their making?

Clearly higher education institutions need to engage and enthuse more academics to embrace management and leadership roles. However, compared with commercial organisations, they are constrained in the incentives they can offer, and professionals are motivated by a complex blend of intrinsic and extrinsic rewards. Management and leadership learning is a social process influenced by a potent mix of internal and external factors. It seems likely that these influences affect whether individuals

perceive themselves as (actual or potential) managers or leaders, their willingness to consider adopting an explicit leadership role and how they enact their understanding of leadership.

12.7 Conclusions and Implications for Policy and Practice

The findings presented in this chapter further underline the need to consider academics as a heterogeneous collection of groupings structured by a series of interrelated characteristics. They begin to illuminate our understanding of the variegated attractiveness of the profession to a range of groups; different individuals' motivations, expectations and ambitions; the implications for institutional management; and the prospects of recruiting and promoting the next generation of academics and academic managers. Much of the existing literature predominantly ignores this differentiation between academics, and this detracts from our understanding of the ways in which changes are taking place throughout the profession. Analyses by career stage and trajectory need to be complemented by an understanding of the differences between institution size, type and mission, terms and conditions of employment, discipline or field of study, grade, gender and race. Together these perspectives offer a more complete picture of these complex changes and different academics' responses to these.

This differentiated approach can inform both policy and practice in addressing the key management challenges identified earlier in this chapter:

Leadership and Governance: Re-engaging Academics in Strategic Decision-Making

For example:

- Finding effective forms of communication with different groupings of academics
- Ensuring information flow to and from academic units and within larger academic divisions
- Involving academic and other groupings in relevant kinds of strategic decisions and at appropriate points in the decision-making process
- Minimising the administrative burden on academic and other professional staff
- Providing the encouragement, support and professional development required by academics who wish to take up a role in management or leadership

Managing Diversity in the Workforce and in the Activities of the Academic Enterprise

For example:

- Appreciating the different working conditions, roles and experiences of various academic groupings, within the same institution and even department
- Providing each with appropriate opportunities for career and personal development, progression and promotion

- Reducing and abolishing inequalities in the pay and conditions of those who undertake work – and make a contribution – of equal value
- Supporting different activities (teaching, research, knowledge exchange, outreach, etc.) in equitable ways, in accordance with an institution's mission

Attracting and Developing Talent: Introducing Flexibility in Employment Without Creating Unfairness

For example:

- Offering reward and recognition for a range of contributions, and not just for recruitment purposes and exclusively in the most competitive academic labour markets
- Encouraging and supporting transfer from other professional and knowledge-based occupations to academic roles from within as well as outside the institution
- Ensuring that flexibility benefits both the individual and the institution and, where possible, both simultaneously
- Enabling individual faculty to move between different modes and conditions of employment during their periods of service

These challenges are significant and far-reaching, but the policies and practices designed to address them should be informed by evidence, including the findings of the international study of the *Changing Academic Profession*.

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Chapter 13

Academic Job Satisfaction from an International Comparative Perspective: Factors Associated with Satisfaction Across 12 Countries

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In many ways, the academic profession is one of the “key professions” in the knowledge society. Academics hold central positions in the knowledge society through their traditional roles as producers of knowledge and educators of knowledge workers. Universities are also emerging as a key source of innovation and economic and social development, taking on responsibilities previously in the realm of business and government (Etzkowitz et al. 2007). However, the positive and opportunistic outlook of university-driven innovation is contingent upon individual academics successfully adapting to these new roles and balancing competing demands. Across a wide range of studies, job satisfaction has been shown to correlate significantly with job performance, with the strongest correlation found in jobs requiring complexity and autonomy (Judge et al. 2001). Change has always been a key feature of the university and the academic profession, but academics have rarely played a positive role in initiating or supporting institutional reform. Almost without exception, academics defend traditions and the status quo, regardless of whether such traditions serve the long-term interest of the university (Altbach 1980). The university’s durability can be partly credited to the conservatism of the

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professoriate. Conservatism protects the university from ill-advised change or change for the sake of change. On the other hand, conservatism can also obstruct desirable change. Undoubtedly, the rise of the knowledge society envisages changes to traditional academic roles, and a motivated academic workforce, satisfied with their reconstructed academic jobs, is most likely to produce the greatest benefit to research, innovation and society. Therefore, it is of paramount importance that stakeholders seeking to influence the university's role in the knowledge society understand what motivates academics in their everyday work. This, of course, is equally true for those in charge of our universities, be they vice chancellors, deans, heads of school or research directors.

While job satisfaction within universities has received increased attention, most detailed former studies are single-country, often from the USA (August and Waltman 2004; Bozeman and Gaughan 2011; Grunwald and Peterson 2003; Iiacqua et al. 1995; Mamiseishvili and Rosser 2010). International studies have been limited to comparisons of descriptive results and mean levels of satisfaction, rather than exploring job satisfaction through a multivariate approach (Enders and Teichler 1997; Lacy and Sheehan 1997). With job satisfaction and its correlates defined inconsistently across studies, international comparisons are problematic, and so too are generalisations beyond the single countries examined. It is also unclear to what extent the theoretical models of job satisfaction developed in the USA apply to other national contexts. The purpose of this chapter is to examine job satisfaction from an international and comparative perspective through an established theoretical framework, Hagedorn's (2000) Conceptual Framework for Academic Job Satisfaction (for a summary of Hagedorn's conceptual framework, see Bentley and colleagues in Chap. 3 of this book). Hagedorn's framework has been utilised in previous analyses of job satisfaction in the USA, but as yet has not been used in an international comparative study or in developing countries. This chapter will examine the factors associated with job satisfaction in the 11 countries covered in earlier chapters of this book (Argentina, Australia, Brazil, Canada, Finland, Germany, Japan, Malaysia, Portugal, South Africa, United Kingdom), plus the USA.

13.1 The Rise or Fall of the Academic Profession?

An international and comparative study of job satisfaction appears particularly pertinent at a time when universities across the world face an increased range of demands, expectations and opportunities. Even though the rise of the knowledge society places universities in the front line of wealth generation, other knowledge-based institutions will battle with them for global competitive advantage (Scott 2009). For the university to be successful, it is reliant upon its core academic workforce. However, many have claimed the academic workforce has been in a state of crisis and decline since at least the 1970s, following the onset of mass higher education in many countries (Altbach 1980). The "decline and fall" narrative is linked to the tangible loss of stable career paths and salary relativities with comparable professions, and the less tangible downgrading in autonomy, and privileged status of the

profession (Enders and Teichler 1997). Welch (1998, 1997, 2005) characterised context of the academic profession as “Commodified, Virtualised, Globalised and Postmodernised”. Academics face heightened demands for accountability and social relevance of their research and teaching, a greater contestation over scientific knowledge, an upheaval of research and teaching practices through technological change and, according to some, a more general weakening of professorial power under neo-liberal globalisation (Currie 1998; Welch 1998). Neave (2009) sees academics “becoming simply one more specialised sub-sector in a public world that reduces talent, ingenuity and diversity to the single, all-encompassing descriptor of a ‘human resource’” (p. 20). Many of these changes to academic work have the potential for this “key profession” to face difficulties in attracting, retaining and regenerating its workforce (Coates et al. 2009).

The bleak outlook for the academic profession is primarily drawn from the accounts of scholars in the developed countries. Far less is known about job satisfaction and the situation of academics in developing countries (Ssesanga and Garrett 2005). Broadly speaking, academics across the world engage in similar activities (teaching, research and service) and often share similar concerns and experiences. Indeed, Meyer et al. (2007) believe that the academic profession can be characterised in global terms, with universal status and reciprocal recognition across the world, analogous to rabbis or priests. Scott (2006, p. 19) characterises the position of academics in the knowledge society in similar terms as “a form of secular priesthood”. However, the factors influencing academic performance are highly contextual. In developing countries, knowledge is often held in higher esteem and academics enjoy relatively more status, but this is frequently counteracted by very low salaries, poor institutional facilities and a lack of intellectual freedom (Altbach 2003). While academics in all countries may bemoan the proverbial decline of collegiality and the intrusion of administrators and bureaucratic accountability into everyday work, academics in developing countries, such as China and Malaysia, work in highly politicised universities, with direct political involvement in university decision-making (Chen 2003; Lee 2003). Although universities in both countries are developing corporate cultures, government ministries retain considerable power and talented academics are often drawn towards more lucrative administrative careers. Therefore, the opportunities provided to academics in the developing countries with the onset of the knowledge society, and the factors which motivate such academics, may well not be generalisable from the bulk of studies of the academic profession in developed countries.

Not all accounts of the changing nature of academic work, however, project the changes in negative terms. Scott (2009) offers a more nuanced account and considers the decline and fall of the academic profession as primarily restricted to a narrowly defined group of teachers and researchers in traditional universities. He believes universities have engaged in “mission stretch”, which has brought formerly peripheral activities, such as knowledge dissemination and entrepreneurialism, into the core. He sees this as a strategy to maximise income and argues that such changes probably benefited the situations of academics in newer universities and nonuniversity institutions. Enders and de Weert (2009) also consider these newer roles and expectations as opportunities in the knowledge economy. They characterise contemporary academic careers as T-shaped, with entrepreneurial knowledge dissemination roles

extending out of traditional disciplinary and institutional bases, in ways which may have previously have been considered contradictory. Similarly, Slaughter and Leslie (1997) use “academic capitalism” to describe a range of entrepreneurial activities which academics have engaged in, though more in response to reduced institutional base funding than through active embracement. While many will benefit from exciting entrepreneurial activities, Slaughter and Leslie also offer a more nuanced account by claiming academics “close to the market” (p. 243) will be afforded greater opportunities to research compared to heavier teaching loads of others further from the market. The changing nature of academic work risks fragmenting the profession between those who readily adapt and accommodate the new demands as an extension of their traditional work and those who either lack opportunities (or are unwilling) to engage in newer roles.

Clark (1998) saw no particular contradiction between entrepreneurship and traditional academic values but emphasised that the core function of universities remained in the traditional “academic heartland”. Ylijoki’s (2003, 2005, 2011) studies in Finland suggest that the two value sets coexist rather than integrate. Balancing the two value sets and finding time for research have become difficult, even for senior staff in technology-related fields, but particularly in the humanities where teaching and administrative commitments leave little time for research and scholarship. While Ylioki found that some academics on short-term contracts with heavy teaching loads limited their commitment to traditional academic values (e.g. disinterested basic research), most retained a particularly strong commitment to their research centres and nostalgia towards traditional research. Ylioki interpreted the nostalgia as evidence of the strength of traditional values and the ongoing commitment of academics to basic research, even when the demands for applied research and fund-raising appear overwhelming. Likewise, Hakala (2009) also found that early career researchers in Finland retained a strong commitment to parts of the traditional conception of a professional “calling” and desire to remain in academia, but rejected other notions such as research for the sake of knowledge itself. This may also be considered a relatively positive adaptation to the new academic environment which emphasises the utility of research for national innovation.

One thing that the conflicting narratives of the academic profession share in common is that expectations of universities have changed and the importance of the profession is unquestionable. In 1980, Altbach (1980, pp. 13–14) claimed that the similar worldwide challenges faced by the profession – of expansion, fiscal constraints, public criticism, curricular malaise and a declining sense of professionalism – justified examining these changes to the academic profession in comparative terms. At the time, he lamented that the challenges were unrecognised by many, including government officials and even some university administrators, and was surprised at the lack of research concerning the academic profession, either comparatively or in specific countries. In 1992, under the leadership of Ernest Boyer, the Carnegie Foundation for the Advancement of Teaching (hereafter “Carnegie”) conducted the first ever international survey of the academic profession across 14 countries (Altbach 1996).

13.1.1 Previous International Studies of Job Satisfaction and the Academic Profession

Crisis, change and morale were themes in many of the journal articles, book chapters and reports based on the Carnegie survey. In 1997, a special issue of the journal *Higher Education* was dedicated to the Carnegie survey results. Welch's (1997) introductory article claimed that change and uncertainty were coming from various fronts. The 1980s and 1990s saw governments – in both industrialised and developing countries – reducing per-student funding of universities while at the same time expecting universities to move towards a system of universal access (massification). Higher education was becoming increasingly measured according to economic benchmarks,

“commodifying” activities that previously did not have an explicit market value. Teaching students and the pursuit of truth through scientific research (formerly social goods without clear economic value) were ascribed economic value and measured by governments and administrators based on their contribution towards human resource and economic development. From China to the UK, universities appeared to be facing similar pressures to privatise through deregulation, with funding gaps to be covered by private contributions on a user-pays basis. New technologies were having an impact on long-standing research and pedagogical traditions while also facilitating deeper implementation of performance measurement. The implications for morale within the professoriate appeared self-evident.

International data on job satisfaction from the Carnegie international survey were duly analysed by two articles in the special issue, which have subsequently been cited many times. Lacy and Sheehan (1997) set out to examine job satisfaction in 8 of the 14 countries (Australia, Germany, Hong Kong, Israel, Mexico, Sweden, UK and USA). From the outset, the expectations were clear. According to the authors, changes to higher education in the 1980s and 1990s led to high levels of unease, and it was commonplace to hear that “morale has never been lower” or that “staff were at breaking point” (p. 306). Their descriptive results indicated 60% of academics in Sweden and the USA were satisfied with their job situation as a whole, compared to half or fewer in Hong Kong (50%), UK (49%), Australia (49%), Mexico (46%) and Germany (41%) (no data were available for Israel). Refraining from drawing international or national conclusions, the authors speculated that national differences reflected the individual circumstances of academics in each country. For example, the low level of satisfaction amongst German academics may have been due to their comparably low satisfaction with the classes they taught, prospects for promotion and the way the institution was managed. However, they did not pursue the international comparisons further. There was no examination of whether job satisfaction was correlated with aspects of academic work and if these patterns were similar across countries.

The second article within the special issue examining job satisfaction by Enders and Teichler (1997) used the Carnegie data to compare job satisfaction (and other work-related variables) across six countries (Germany, the Netherlands, England,

Japan, the USA and Sweden). They segmented the samples and explored the results based on rank (professor, middle rank, junior staff) and institutional type (universities and other higher education providers). While negativity could be interpreted from the title of their article (“A victim of their own success?”), victimisation was not a key theme in their interpretation. They reported that roughly two thirds of university professors were satisfied, with very minor differences across countries, and concluded “the degree of satisfaction expressed can be considered as surprisingly high ... the survey does not portray the academic profession as clearly disappointed and resentful” (p. 370). This relatively positive view of the academic profession was reiterated by Enders (1999) in a later article titled “Crisis? What Crisis?” where he speculated that high satisfaction may be credited to three potential sources: the profession’s enormous staying power and ability to survive under varying conditions, that the core of the profession had been unaffected by (or yet to experience) the changes referred to above, or job satisfaction was an example of academic self-compliance amidst a time of rapid change (p. 79). However, the conclusion of broad job satisfaction within the professoriate did not sit easily with Lacy and Sheehan’s (1997) findings or the authors’ own results for academics below the professor rank. In all countries examined by Enders and Teichler (1997), academics were less satisfied in middle ranks and lesser still in lower ranks. For example, in Germany, the proportion of satisfied academics dropped appreciably from 64% amongst professors to 34% in middle ranks and 32% in junior staff. Given that most academics did not hold professor positions (though the authors did not show the sample size for each rank), overall satisfaction could hardly be considered high. In fact, Enders and de Weert (2009, p. 252) later cited the article as an example of the “decline and fall” narrative of the profession in the wake of massification. It also highlights the fact that interpretations can change depending on how one splices the data and that sample sizes can become an issue – something we will return to later in this chapter.

It is difficult to conclude from the Carnegie data what the broad level of job satisfaction in the early 1990s was due to the considerable variability within each country based on staff categories. Basic cross-tabulations are also insufficient to demonstrate how job satisfaction varies within the professoriate because many categorisations are highly correlated (e.g. rank, gender, qualifications, institutional type, research and teaching duties). Drawing comparisons from separate studies is particularly problematic given the various methods for operationalising job satisfaction and the choice of independent variables. This illustrates the importance of approaching job satisfaction and its correlates through an established theoretical framework, particularly when one has the opportunity to analyse internationally comparable data.

13.2 Theoretical Framework

Hagedorn’s Conceptual Framework for Academic Job Satisfaction (2000) builds upon the classic two-factor theory of job satisfaction developed by Herzberg et al. (1993). Herzberg considered job satisfaction to be derived from two sources: motivators (intrinsic factors) and hygienes (contextual and extrinsic factors). The two-factor

Table 13.1 Conceptual framework for academic job satisfaction (Hagedorn 2000)

Mediators			Triggers
Motivators and hygienes	Demographics	Environmental conditions	Change or transfer
Achievement Recognition	Gender Ethnicity ^a	Collegial relationships ^a Student quality or relationships	Change in life stage Change in family-related or personal circumstances ^a
Work itself Responsibility ^a	Institutional types ^a Academic discipline	Administration Institutional climate or culture ^a	Change in rank or tenure Transfer to new institution
Advancement Salary ^a			Change in perceived justice ^a Change in mood or emotional state ^a
Institutional resources ^b			

^aMeasures not operationalised^bAdditional variable, not included in Hagedorn's (2000) original framework

theory considers factors promoting job satisfaction to be different to those which prevent dissatisfaction. Motivator/intrinsic factors, such as challenging and interesting work, help promote job satisfaction. However, they do not prevent dissatisfaction if certain hygiene factors are left unmet, such as satisfactory salary or workplace policies. By contrast, satisfactory salary and hygiene factors, while effective at preventing dissatisfaction, do not lead one to be satisfied, as job satisfaction is believed to be an outcome of motivator factors and the intrinsically rewarding elements of one's work. Many studies of academic job satisfaction have offered support to Herzberg and colleagues' two-factor theory, including Hill (1987, in Lacy and Sheehan 1997, p. 307) who concluded that job satisfaction is related to intrinsic factors (the work itself), while dissatisfaction arises from factors external to the job. Lacy and Sheehan (1997) believed their results offered no evidence to challenge to the two-factor theory as an explanatory model, but it is not clear how the two-factor theory was used to categorise the independent variables in their study.

Hagedorn (2000) offers a clear account for how the two-factor theory may be applied to academic work, including both motivators and hygienes, and other categories of factors, such as demographics, environmental conditions and triggers. Hagedorn's main departure from the two-factor theory was the inclusion of triggers, which are significant work or nonwork events affecting one's reference point for how work fits into one's life. Hagedorn's framework and the variables operationalised in this chapter are shown below (Table 13.1).

13.3 Data and Methodology

We examine comparable data on job satisfaction across 12 of the CAP countries: Argentina, Australia, Brazil, Canada, Finland, Germany, Japan, Malaysia, Portugal, South Africa, United Kingdom and the USA. Our total sample size is 13,403 academics.

13.3.1 Dependent Variable

Our dependent variable is the ordinal response to the question: “How would you rate your overall satisfaction with your current job?” (very low=1; very high=5). Our use of a single question to measure the complexity of job satisfaction raises some concerns. Single-item measures are less reliable than multi-item scales constructed from numerous questions directly and indirectly related to one’s job satisfaction. For example, if one was genuinely satisfied with their academic work, one would expect consistently positive views across a range of questions addressing the state of the academic profession. Multi-item approaches also improve specificity, increasing the potential range of values. In their study of Australian academics, Bentley and colleagues (in Chap. 3 of this book) constructed a factor-based score based on four items by including an additional three questions (“This is a poor time for any young person to begin an academic career in my field”, “If I had it to do over again, I would not become an academic” and “My job is a source of considerable personal strain”). They found this to be an internally consistent measure, with a Cronbach alpha of 0.74, exceeding the threshold for what Burns and Burns (2008) consider acceptable internal consistency in an attitude scale (a Cronbach alpha exceeding 0.70).

The problem with replicating this approach for an international sample is that the four items are not internally consistent in most countries. Only in the UK, Brazil, Australia and the USA did the Cronbach alpha exceed the recommended threshold of 0.70. Canada, the remaining English-speaking country, came close to reaching this benchmark with a Cronbach alpha of 0.69 (which increased to 0.73 when the question addressing prospects for young academics was removed). As noted by Höhle and Teichler (in Chap. 7 of this book), inconsistent correlation across questions addressing the state of the academic profession suggests that the meaning of job satisfaction probably differs across cultures. For example, the relationship between job satisfaction and work-related personal strain may take upon a different meaning in cultures that revere personal sacrifice. The greater internal consistency across English-speaking countries probably reflects a similar cultural understanding of job satisfaction. The statistics for internal consistency and the means for the four questions are shown in Table 13.2.

13.3.2 Independent Variables

Hagedorn’s (2000) framework contains four types of independent variables: motivators and hygies, demographics, environmental variables and triggers. We operationalised four out of the six motivators and hygies variables: achievement (publications), work itself (available research time), recognition (elected leadership role or scientific board member) and advancement (senior academic rank). We also include an additional variable for satisfaction with institutional resources (not contained

Table 13.2 Mean response for job satisfaction, prospects for young academics, if one would choose an academic career again, work-related personal strain, Cronbach alpha and sample size (*n*), by country

Country	Job satisfaction	Prospects for young	Academic career again	Personal strain	Cronbach alpha	<i>n</i>
Argentina	3.72	3.75	4.46	3.40	0.54	826
Australia	3.42	2.77	3.60	2.64	0.74	1,101
Brazil	3.69	3.85	4.00	3.16	0.75	1,144
Canada	3.87	3.13	4.18	2.82	0.69	1,077
Finland	3.71	2.72	3.83	2.71	0.56	1,428
Germany	3.59	3.02	4.03	2.90	0.64	1,193
Japan	3.64	4.06	3.68	2.40	0.42	1,392
Malaysia	3.72	4.00	4.16	3.51	0.62	1,190
Portugal	3.39	2.90	3.72	2.73	0.64	1,041
S. Africa	3.37	3.55	3.64	3.07	0.66	733
UK	3.34	2.63	3.47	2.45	0.76	1,132
USA	3.69	3.53	4.18	3.06	0.72	1,146
Total	3.60	3.32	3.91	2.88	0.67	13,403

Notes: Sample size (*n*) may vary slightly across questions due to single-item nonresponse

Prospects for young: “This is a poor time for any young person to begin an academic career in my field” (strongly agree = 1; strongly disagree = 5)

Academic career again: “If I had it to do over again, I would not become an academic” (strongly agree = 1; strongly disagree = 5)

Personal strain: “My job is a source of considerable personal strain” (strongly agree = 1; strongly disagree = 5)

in Hagedorn’s framework) because we consider satisfactory institutional resources as facilitators of academic work and their absence has detrimental effects on one’s work satisfaction. Two motivators and hygienes – responsibility and salary – were not operationalised due to a lack of data (responsibility) and correlation with other independent variables (salary and rank).

We operationalised two out of the four demographic variables: academic discipline (academic field based on the guidelines of UNESCO (1978)) and gender. The CAP survey did not contain data on ethnicity, and we chose not to operationalise a variable for institutional type due to a lack of consistency across countries in university categories. Our model contained two environmental variables: student quality/relationships (poor student quality) and two separate variables for administration, satisfaction with administration processes and perceived departmental influence. Environmental variables directly measuring collegial relationships and institutional climate/culture were not available in the CAP data, though the effect of these factors is likely found in the other environmental variables measuring administration. We only had limited data for operationalising Hagedorn’s trigger variables due to the lack of precise questions and the cross-sectional nature of the CAP survey. We operationalised three trigger variables for change in life stage (early career/under 40 years, mid-career/40–55 years and late career/over 55), change in rank/tenure (recently promoted or appointed in the past 5 years) and transfer to new institution (new appointment with less than 4 years at current institution).

The procedure and rationale for operationalising the selected variables have been discussed previously in Chap. 3 of this book. The only differences in procedure for examining the international sample in this chapter relate to advancement (academic rank) and the omission of a variable for institutional type. Given the large number of national categories for rank, we operationalised advancement as a single dichotomous variable, rather than as a series of dichotomous variables for all categories. National classification for senior academic rank was developed by the national CAP survey teams and typically included full professors and those holding the rank immediately below. A summary of how the independent variables were operationalised is shown in Table 13.3, and the means for each independent variable, by country, are shown in Table 13.4.

13.4 Results

Before presenting the multivariate results, it is worth presenting some descriptive results and drawing comparisons with the former studies. In Lacy and Sheehan's (1997) analysis of the 1992 Carnegie survey, they reported the proportion of academics satisfied with their jobs (reporting 4 or 5, on a scale of 1–5). They found satisfaction varied between countries: Australia (49%), Germany (41%), Hong Kong (50%), Mexico (46%), Sweden (60%), the UK (49%) and the USA (60%). Taking a similar dichotomy for satisfaction in the CAP survey, Table 13.5 indicates that the proportion of satisfied academics is slightly higher for Australia (55%) and the USA (63%) and considerably higher in Germany (62%). Only in the UK is the proportion of satisfied academics lower (47%). This would suggest that self-reported job satisfaction has improved since the early 1990s. Enders and Teichler (1997) also examined the 1992 data for Germany, England, Netherlands, Sweden, Japan and the USA. They found the proportion of academics reporting satisfaction declined with rank and was higher in universities compared to other institutions. According to Enders and Teichler, roughly two thirds of university professors in the six countries were satisfied, and this proportion varied only slightly across countries (from 63 to 67%). In all six countries, the proportion of satisfied academics was lowest in the bottom academic ranks, but satisfaction in lower ranks varied from 32% of university junior staff in Germany to 55% in the Netherlands. Satisfaction was also a minority response for staff not employed at universities. We are unable to precisely replicate Enders and Teichler's variables for academic rank and institutional categories because it is not clear how Enders and Teichler operationalised these variables. However, in Table 13.5, we also report the proportion of academics reporting job satisfaction based on academic rank.

Two thirds (67%) of the senior-ranking academics in the CAP sample reported satisfaction with their jobs. This is remarkably similar to Enders and Teichler's (1997) results for professors (roughly 65% satisfied). Further, the CAP results also support Enders and Teichler's findings that, in most countries, satisfaction is higher in senior-ranked positions compared to lower-ranked university positions. Only

Table 13.3 Independent variable operationalisation and description

<i>Motivators and hygienes</i>	
Publications ^a	A square root transformation of the weighted sum of an individual's journal articles (1 point), edited books (2 points) and authored books (5 points) in the previous 3 years
Recognition ^b	In the previous year was a member of a national/international scientific board, elected leader of a professional association or union or elected leader of a professional/academic organisation
Available research time ^b	Academics were categorised as having sufficient research time if (1) their primary interest was research and they spent at least 30% of their time on research; (2) they held both teaching and research interests and spent at least 20% of their time on research; or (3) they held a primary interest in teaching
Senior rank ^b	Holds a senior academic rank (details in the Appendix)
Institutional resources ^c	Mean satisfaction with 12 institutional resources: classrooms, technology for teaching, teaching support staff, laboratories, research equipment, research funding, research support staff, computer facilities, libraries, office space, telecommunications and secretarial support
<i>Demographics</i>	
Male ^b	Male
Social sciences ^b	Current academic unit in the social sciences
Humanities ^b	Current academic unit in the humanities
Natural sciences ^b	Current academic unit in the natural sciences
Technology ^b	Current academic unit in technology or engineering
Medicine ^b	Current academic unit in the medical/health sciences
<i>Environment</i>	
Poor student quality ^c	Degree of agreement that "You spend more time than you would like teaching basic skills due to student deficiencies"
Dept. influence ^d	"How influential are you, personally, in helping shape academic policies ... at the level of the department"
Administration processes ^c	Mean response to five administration questions: At my institution there is "a cumbersome administrative process" (reverse coded), "collegiality in decision-making", "good communication between management and academics", "a supportive attitude of administrative staff towards teaching" and "a supportive attitude ... towards research"
<i>Triggers</i>	
Early career ^b	Under 40 years of age
Mid-career ^b	40–55 years of age
Late career ^b	Over 55 years of age
Recently promoted ^b	Promoted/appointed to current rank within the last 5 years
New appointment ^b	Less than 4 years at current institution

^aScale variable^bDichotomous variable^cFive-point ordinal variable^dFour-point ordinal variable

Table 13.4 Independent variable means by country

Country	ARG	AUS	BRA	CAN	FIN	GER	JAP	MAL	POR	SA	UK	USA
<i>Motivators and hygienes</i>												
Publications ^a	2.48	2.52	2.21	2.55	2.25	2.83	3.60	2.11	2.55	1.85	2.56	1.90
Recognition ^b	0.43	0.43	0.39	0.63	0.47	0.34	0.66	0.50	0.50	0.38	0.39	0.46
Available research time ^b	0.91	0.78	0.64	0.87	0.81	0.84	0.85	0.61	0.83	0.66	0.76	0.84
Senior rank ^b	0.31	0.23	0.59	0.71	0.27	0.40	0.87	0.24	0.23	0.70	0.56	0.64
Institutional resources ^c	2.65	3.22	3.16	3.25	3.57	3.26	2.93	3.12	3.03	3.22	3.06	3.33
<i>Demographics</i>												
Male ^b	0.41	0.50	0.53	0.59	0.50	0.71	0.91	0.52	0.55	0.53	0.51	0.58
Social sciences ^b	0.28	0.34	0.44	0.38	0.31	0.26	0.23	0.27	0.30	0.54	0.33	0.36
Humanities ^b	0.16	0.13	0.08	0.18	0.14	0.10	0.09	0.07	0.08	0.22	0.20	0.25
Natural sciences ^b	0.27	0.21	0.18	0.21	0.23	0.28	0.25	0.23	0.27	0.16	0.21	0.18
Technology ^b	0.19	0.06	0.08	0.08	0.16	0.18	0.22	0.31	0.24	0.03	0.08	0.07
Medicine ^b	0.10	0.25	0.22	0.15	0.16	0.18	0.20	0.13	0.10	0.05	0.17	0.13
<i>Environmental</i>												
Poor student quality ^c	3.82	3.61	3.51	3.54	3.25	3.46	3.70	3.48	3.80	3.90	3.76	3.53
Dept. influence ^d	2.28	2.38	2.76	2.78	2.44	2.88	2.48	2.42	2.52	2.72	2.40	2.99
Admin. process ^c	2.89	2.54	2.93	2.89	2.70	2.61	2.92	3.16	2.69	2.55	2.60	2.93
<i>Triggers</i>												
Early career ^b	0.24	0.26	0.31	0.26	0.42	0.34	0.12	0.56	0.38	0.31	0.27	0.16
Mid-career ^b	0.54	0.52	0.55	0.51	0.41	0.45	0.49	0.39	0.53	0.49	0.51	0.46
Late career ^b	0.22	0.22	0.14	0.23	0.18	0.21	0.39	0.05	0.09	0.19	0.22	0.39
Recently promoted ^b	0.45	0.73	0.58	0.60	0.68	0.48	0.53	0.80	0.62	0.60	0.68	0.58
New appointment ^b	0.11	0.43	0.31	0.29	0.36	N/A	0.23	0.45	0.14	0.33	0.38	0.27

^aScale variable

^bDichotomous variable

^cFive-point ordinal variable

^dFour-point ordinal variable

Table 13.5 Proportion of academics reporting job satisfaction (%) and sample size (*n*), by rank and country

	Senior rank		Junior rank		All staff	
	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>
Argentina	79	258	56	568	63	826
Australia	72	255	50	842	55	1,101
Brazil	67	675	60	465	64	1,144
Canada	75	765	72	312	74	1,077
Finland	73	379	65	1,005	67	1,428
Germany	71	475	56	705	62	1,193
Japan	70	1,216	59	174	69	1,392
Malaysia	75	269	63	857	65	1,190
Portugal	65	209	50	711	53	1,041
South Africa	53	450	50	191	51	733
UK	49	606	44	471	47	1,132
USA	64	728	61	418	63	1,146
Total	67	6,285	57	6,719	62	13,403

All staff includes cases where academic rank is unknown

57% of academics in junior ranks reported satisfaction. However, the CAP results also indicate considerable variation across countries in the proportion of senior-ranking academics who are satisfied and the relationship between rank and satisfaction, compared to the relatively consistent international patterns in Enders and Teichler's study. In Argentina, 79% of senior-ranking academics reported satisfaction compared to 56% of junior-ranked academics, while in UK less than half of senior-ranked academics reported satisfaction (49%), and this was only marginally higher than juniors (44%). The greater variation across countries in this study is perhaps due to the wider range of countries included (compared to the six countries in Enders and Teichler's study), but there are other noticeable differences with Enders and Teichler's study. For example, 71% of senior-ranking German academics in the CAP survey reported satisfaction, compared to 56% in lower university ranks. These figures are comparably higher for both ranks than Enders and Teichler's results for German professors (64%) and lower-ranked staff (which ranged from 32 to 34%). Despite the narrowing of the gap, Höhle and Teichler (in Chap. 7 of this book) rightly point out that the German academic profession cannot be viewed as homogeneous in the level of satisfaction or factors associated with satisfaction.

Although the cross-tabulated results for the single question of overall job satisfaction suggest that job satisfaction is more common in senior academic ranks, rank also tends to reflect other characteristics, such as age, experience, research performance and gender. Further, a single question on job satisfaction, recoded into a categorical variable, provides a crude and limited picture of job satisfaction. While our use of a single-item ordinal scale for job satisfaction (from 1 to 5) has limitations, it does provide scope for multivariate OLS regression for the factors associated with higher levels of job satisfaction. Given that the independent variables are a mixture of dichotomous, ordinal and scale variables, we present the OLS regression results for unstandardised betas in Table 13.6 and standardised betas in Table 13.7.

Table 13.6 OLS regression unstandardised betas for factors associated with higher levels of job satisfaction

	ARG	AUS	BRA	CAN	FIN	GER	JAP	MAL	POR	SA	UK	USA
(Constant)	2.48**	1.16**	1.75**	1.24**	2.20**	1.17**	1.44**	1.97**	1.61**	1.23*	0.45	1.05**
<i>Motivators and hygienes</i>												
Publications ^a	0.06**		0.06*		0.04	0.03						
Recognition ^b		0.27**				0.34**					0.15	
Avail. res. time ^b				-0.18								
Senior rank ^b		0.14**	0.28**	0.35**	0.24**	0.34**	0.38**	0.24**	0.27**	0.32**	0.39**	0.35**
<i>Demographics</i>												
Male ^b	0.18**		0.15*			0.18*	0.22*				-0.12	
Humanities ^b										-0.29		
Natural sciences ^b						-0.14						
Technology ^b		-0.30		0.21								
Medicine ^b						-0.22*						
<i>Environmental</i>												
Poor student quality ^c		-0.14**	-0.10**	-0.08**				-0.07*	-0.11*			-0.10**
Dept. influence ^d		0.15**	0.10**	0.20**		0.11**		0.17**	0.25**	0.22**	0.25**	0.17**
Admin. process ^e	0.21**	0.42**	0.31**	0.31**	0.18**	0.25**	0.19**	0.22**	0.19	0.19	0.37**	0.40**
<i>Triggers</i>												
Early career ^b												
Late career ^b		0.20*				0.28**	0.20**			0.40*	0.24**	0.12*
Recently promoted ^b		0.21*				N/A				0.31	0.19*	0.15*
New appointment ^b			0.21*							0.31	0.20*	
R-square	0.18	0.37	0.31	0.29	0.13	0.29	0.17	0.24	0.17	0.25	0.41	0.42
Adjusted R-square	0.16	0.35	0.29	0.28	0.10	0.28	0.16	0.20	0.13	0.19	0.40	0.41
n	636	513	566	710	474	687	897	366	321	212	656	974

Reference categories: social science, mid-career

Significance level: * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

^aScale

^bDichotomous

^cFive-point ordinal

^dFour-point ordinal

Table 13.7 OLS regression standardised betas for factors associated with higher levels of job satisfaction

	ARG	AUS	BRA	CAN	FIN	GER	JAP	MAL	POR	SA	UK	USA
<i>Motivators and hygienes</i>												
Publications ^a	0.11**			0.08*	0.09	0.07						
Recognition ^b		0.10**				0.14**					0.06	
Avail. res. time ^b				-0.08								
Senior rank ^b	0.19**											
Inst. resources ^c	0.15**	0.16**	0.25**	0.24**	0.17**	0.24**	0.26**	0.21**	0.19**	0.23**	0.27**	0.26**
<i>Demographics</i>												
Male ^b	0.11**		0.08*			0.08*	0.07*				-0.06	
<i>Humanities^b</i>												
Natural sciences ^b						-0.07						
Technology ^b		-0.07		0.06								
Medicine ^b						-0.09*						
<i>Environmental</i>												
Poor student quality ^c		-0.15**	-0.13**	-0.10**				-0.10*	-0.13*			-0.11**
Dept. influence ^d		0.13**	0.09**	0.18**		0.11**		0.18**	0.23**	0.22**	0.23**	0.17**
Admin. process ^e	0.19**	0.32**	0.28**	0.25**	0.17**	0.21**	0.13**	0.21**		0.14	0.27**	0.35**
<i>Triggers</i>												
Early career ^b		0.08*										
Late career ^b		0.09*				0.12**	0.11**			0.16*	0.10**	0.06*
Recently promoted ^b						N/A				0.14	0.09*	0.08*
New appointment ^b			0.10*								0.09*	
R-square	0.18	0.37	0.31	0.29	0.13	0.29	0.17	0.24	0.17	0.25	0.41	0.42
Adjusted R-square	0.16	0.35	0.29	0.28	0.10	0.28	0.16	0.20	0.13	0.19	0.40	0.41
n	636	513	566	710	474	687	897	366	321	212	656	974

Reference categories: social science, mid-career

Significance level: * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$ ^aScale^bDichotomous^cFive-point ordinal^dFour-point ordinal

Both tables show results for all independent variables exhibiting statistically significant ($p < 0.10$) associations with higher job satisfaction.

Similar to the high variation across countries in the internal consistency of survey responses to various aspects of academic job satisfaction (see Table 13.2), the proportion of variance in the job satisfaction which could be explained by our model of independent variables ranged markedly across countries. Based on the adjusted R -squares, the model explained a reasonable share of the variance in self-reported job satisfaction the USA (42%), UK (41%), Australia (37%), Brazil (31%), Canada (29%) and Germany (29%). However, the model explained considerably less variance in Argentina (18%), Japan (17%), Portugal (17%) and Finland (13%). These results bring into question whether one may be able to utilise a single model of factors associated with academic job satisfaction around the world, even within the industrialised OECD countries.

13.4.1 Results for Motivators and Hygienes

Satisfaction with institutional resources, which contained 12 separate resource types, was the only variable which exhibited significant relationship with job satisfaction in all 12 countries examined. The pressure for universities to do more with fewer resources has been a worldwide phenomenon, and it is unsurprising that satisfaction with institutional resources closely correlates with job satisfaction. In the wake of massification and declining government funding, universities around the world have become increasingly reliant upon private funding sources to supplement (Meek and Davies 2009). Although the experience of austerity may be common for all academics, the effects are uneven and those academics unable to access satisfactory resources for the completion of their duties report lower levels of satisfaction.

The availability of research time may also be considered an institutional resource, particularly in times of growing demands for accountability of academic time use. Traditionally, all academics could make claims to have adequate time available to engage in research, particularly under the Humboldtian traditions of research-based teaching. Equitable access to research time may still be seen in formal terms under union-based collective agreements governing academic work. We took a relatively conservative classification for whether or not one had available research time, based on the proportion of time spent on research and self-declared interest in this activity over teaching (30% of time in research for primary interest, 20% for both research and teaching interests and no threshold for those with primary teaching interests). The vast majority of academics in most countries met the threshold and were considered to have available research time. However, for the 22% of Australian academics, 16% of German academics and 24% of UK academics who did not have available research time, there was a modest but statistically significant negative relationship with job satisfaction.

Perhaps surprising, we found only weak relationships between publication productivity and job satisfaction, significant only in Argentina, Canada, Finland and

Germany. Based on expectancy and self-determination theories of motivation, one may expect that academics who perform well in research and publish will receive greater intrinsic and extrinsic rewards from such performance (Gagné and Deci 2005). Intuitively, one may have expected a particularly strong relationship between publishing and satisfaction in the UK, where the Research Assessment Exercise has increased the pressure to publish. However, it should be noted that the lack of significance for this variable is not unusual. An American study of academic productivity and job satisfaction by Mamiseishvili and Rosser (2010) found no significant relationship between job satisfaction and research productivity. Therefore, the lack of significance in most countries suggests that publishing has only a minor relationship with job satisfaction, once related factors, such as research time and academic rank, are controlled for.

13.4.2 Results for Demographic Variables

Hagedorn's (2000) framework contained four types of demographic variables associated with job satisfaction, of which we included two: gender and academic field (we did not operationalise institutional type or ethnicity). Most of the results for the demographic variables were weak and insignificant. While there were some significant effects for each of the variables in certain countries, there were no consistent international patterns. Male academics were marginally more satisfied than females in Argentina, Brazil, Germany and Japan, but the opposite is the case in the UK. None of the academic field variables were highly significant ($p < 0.01$). The weakness of these variables suggests that demographics play only a minor role in predicting job satisfaction compared to the other clusters of variables in Hagedorn's framework.

13.4.3 Results for Environmental Variables

As a group, our results for the environmental variables showed the strongest and most consistent relationships with job satisfaction. We operationalised two variables under Hagedorn's (2000) administration category: administration processes (containing five correlated responses to perceived cumbersome administrative process, collegiality, communication, administration attitudes towards teaching and research) and departmental influence. In all countries other than Portugal, and to a lesser extent South Africa, the relationship between job satisfaction and satisfaction with administration processes is clear. Although it is not possible to pinpoint the precise element of administration which has the strongest relationship with job satisfaction, academics who perceive their administration positively hold more positive views on their own job satisfaction. Likewise, but generally to a lesser extent, academics who perceive that they have a stronger influence over their department's

decision-making processes are also more satisfied with their jobs. This relationship is particularly noticeable in the English-speaking countries, where a two-point increase in satisfaction with administration processes (on a five-point scale) and departmental influence (on a four-point scale) corresponds with roughly a one-point increase job satisfaction (on a five-point scale). The strong relationship between job satisfaction and both administration satisfaction and departmental influence is consistent with previous studies of academic staff in the USA. Iacqua et al. (1995) implemented Herzberg's framework for job satisfaction at an American private business college and found that the strongest predictor variable was satisfaction with administration.

Our second environmental variable, perceived student quality, showed small but significant effects in the expected directions. The extent to which one agreed they spent too much time than they would like teaching basic skills due to students with deficiencies was negatively correlated with job satisfaction in Australia, Brazil, Canada and the USA and to a lesser extent in Portugal and Malaysia. It is worth reflecting also on the mean score for this variable (in Table 13.4). On a scale of 1 (strongly disagree) to 5 (strongly agree), the mean response for this variable was 3.6 across all 12 countries. In other words, dissatisfaction with student ability is common concern across all countries, even more than dissatisfaction with administration processes or institutional resources. The relationship between perceived student ability and job satisfaction has been identified in previous American studies (August and Waltman 2004; Iacqua et al. 1995) and probably reflects the extra demands of teaching more students from increasingly diverse backgrounds. However, it is not clear from our international results why the very poor ratings of student ability in Argentina, UK and South Africa do not show significant relationships with job satisfaction.

13.4.4 Results for Trigger Variables

Hagedorn's (2000) Conceptual Framework for Academic Job Satisfaction considered how changes to one's life stage, family, rank, institution, emotional state and perceived justice can lead one to reassess the role work in one's life. Hagedorn described these events as "triggers". We included three of Hagedorn's triggers in our model: change in life stage (career stage based on age), change in rank (based on time since promotion) and transfer to new institution (based on time since appointment). Of these three trigger variables, only life stage showed consistent and significant relationship with job satisfaction. Controlling for other age-related factors, such as rank, being a late-career academic (over 55 years of age) was positively related to job satisfaction in Germany, the UK, Japan, South Africa and Australia and to a lesser extent in the USA. In Hagedorn's (1994) earlier research, she suggested that older academics may report greater job satisfaction because their experience has given them the time to align their work roles with individual competences

and interests. The limitations of cross-sectional data mean that we cannot draw conclusions on the effects of aging, only that academics of different ages report different mean levels of job satisfaction. If older academics do benefit from improved alignment with their interests, then cross-sectional data will distort the relationship between career stage and satisfaction. Given the group of older academics will not contain dissatisfied academics from the same generation who could not align their interests with their work and have sought alternative careers or retirement, the remaining group of older academics will be a selective group of academics. Therefore, one should be cautious to interpret these results as indicating changes to career stage have led to a positive reassessment of academic work amongst older academics.

The trigger variable for change in rank (“recently promoted” within the past 5 years) was significant only in Australia, USA and the UK. Although this may give some support to the positive relationship between job satisfaction and promotion (including additional salary and recognition of performance), the relationship is weak compared to the environmental variables. There is also very little evidence to suggest that a change of institution (being a “new appointment” in the past 5 years) is related to one’s job satisfaction, though the weak significant results in Brazil, South Africa and the UK suggest a positive relationship with institutional change and job satisfaction.

13.5 Discussion

Academics are renowned for the intrinsic motivation they derive from their work. The broad results of the CAP survey suggest that the fulfilment that academic work provides remains central to the motivations behind academic careers. Across the 12 countries examined in this final chapter, on average, 62% of academics reported being satisfied (above the midpoint of the scale), with a further 26% neutral (at the midpoint). Even amongst the British academics, who invariably reported the lowest mean satisfaction on all job-related measures (see Table 13.2), only 17% reported a level of overall job satisfaction below the midpoint of the scale. Although a five-point scale for job satisfaction is a crude measure for such a complex phenomenon, there are further reasons to believe that, upon reflection, most academics are content with their current position and with the choices that have shaped their careers. When asked “if I had it to do over again, I would not become an academic”, on average, only 15% of the academics agreed with this declaration. Clearly academics are not entirely miserable with the state of their careers.

However, despite positive accounts of their own careers, many hold negative views on the state of the profession for young entrants. Almost a third (30%) agreed that “this is a poor time for any young person to begin an academic career in my field”. This was a particular concern of academics in the UK (51%) and Australia (46%). There is also ample reason to be concerned about the large minority of

academics (41%) who agree that their “job is a source of considerable personal strain”. Again, this has been a particular concern for academics in the UK (58%) and Australia (51%). However, one should not assume that the relationship between personal strain and job satisfaction is simple and uniform across cultures, given the high levels of stress reported by Japanese academics and its lack of correlation with job satisfaction. Perhaps the consistently negative views of British and Australian academics reflect the particularly dramatic changes experienced by these academics over the course of their careers, such as the abolition of the binary divide between universities and teaching-focused institutions. Australia and the UK were also eager adopters of new public management (Hood 1995). The implications to universities have included work intensification and additional managerial and line management roles into formerly academic positions, such as deans and heads of department (Barry et al. 2001, 2003; Lafferty and Fleming 2000). Academics have also been pressured into new roles involving external fundraising and service in order to maintain university resources in times of growing public expectations and declining funding (Slaughter and Leslie 1997). On the other hand, academics in the USA have also experienced declining funding and greater demands for entrepreneurialism, yet do not share the same negativity of their Australian and British colleagues.

To the outside world, academics have been ridiculed as “heroic complainers” (*Economist* 2011) and a “bunch of whingers”, pining for the “good old days” (Petersen 2011). It is easy to be dismissive of the bitterness and fears of academics were it not for the crucial role they are expected to play in contributing to economic growth through research and the training of the knowledge workforce. As noted by Ramsden (1998), academic leaders must work with academics to find ways to maintain commitment and forge new pathways towards effectiveness, in a culture that upholds open criticism and levels of insubordination which would be unacceptable in other organisations. This task would be easier with clearer knowledge on the factors associated with job satisfaction, which was the purpose of this final chapter.

From the OLS regression results for factors associated with job satisfaction, one may be tempted to conclude that one of the greatest areas of improvement in morale may come through restructuring administration processes. Many academics view administration processes as cumbersome, poorly communicated and lacking collegiality and support for teaching and research. These concerns are common across many countries, with only Malaysian academics, on average, evaluating their administration positively in these areas (above the midpoint of the scale, see Table 13.4). Likewise, of the variables included in our model, administration processes were the factor most strongly associated with job satisfaction in the majority of countries (see Table 13.7). However, it would be a mistake to draw the causal inference that by changing or improving administration processes, one might improve the morale of the academic workforce. Job satisfaction is complex and manifests itself in various ways. Attitudes towards university policies and administration may be symptoms of satisfaction, not the cause. Administration processes and associated managerialism are broad phenomena and easy scapegoats for academics to attach blame for a wide range of frustrations.

Academics across all countries lament the amount of time spent teaching basic skills due to student deficiencies (see Table 13.4). This negativity probably reflects a combination pressures to teach more students of varying scholarly abilities in post-massification systems. Within the OECD countries, academics also typically hold doctoral research qualifications and report a generally higher level of individual interest in research relative to teaching. However, the extent to which one considers they spend too much time teaching basic skills is a weak predictor of job satisfaction. It is difficult to explain why this is the case. One reason could be that the pressures associated with teaching are reflected in individual evaluations of other aspects of academic work, such as adequate resourcing and support for teaching, which formed part of our institutional resources variable.

Any study which attempts to understand job satisfaction must contend with the difficulties of adequately operationalising what job satisfaction means. For international comparative studies, this takes upon additional challenges. In the classic paper “What is job satisfaction”, Locke (1969) claims “Job satisfaction is the pleasurable emotional state resulting from the appraisal of one’s job as achieving or facilitating the achievement of one’s job values” (p. 316). While this type of definition appears straightforward and able to be operationalised through a comprehensive and standardised questionnaire, Locke elaborates that “the causes of job satisfaction are not in the job nor solely in man but lie in the relationship between them” (p. 319). Not only do academic jobs differ across countries, but as this study has shown, the relationship between particular elements of academic jobs and job satisfaction also varies considerably across countries. For example, the relationship between job-related strain and self-reported job satisfaction is not the same in Japan as it is in the UK. Perceptions of administrative processes and their relationship with job satisfaction also differ. Although the diversity in job satisfaction and its correlates may be an accurate reflection of cross-national and intercultural differences, there are inevitable problems of measurement error associated with the translation of terms, such as “cumbersome administrative processes”.

Overall, this chapter has shown that most academics report being satisfied with their jobs and career choices, notwithstanding the resounding negativity towards administrative processes. However, the results for what factors are associated with job satisfaction remain ambiguous. Future international comparative studies of academic job satisfaction will probably face similar challenges. It is difficult to devise a reliable, multi-item composite measure of academic job satisfaction which is internationally consistent because cultural differences influence the degree of satisfaction one derives from different elements of academic work and the environment. The often-cited paradox is that academics may be highly critical of various aspects of their jobs but still report being satisfied overall. Unlike other organisations, where job satisfaction may be reflected through absenteeism or staff turnover as dissatisfied workers move on to better alternatives, universities offer unique and rewarding careers where, given their time over, most academics would readily sign up to again.

Appendix

National Classifications for Academic Rank

Country	Senior rank	Junior rank
Argentina	Titular, asociado	Adjunto, jefe de trabajos prácticos, ayudante de 1ra, others
Australia	Level E, level D	Level C and below
Brazil	Full professor, associate professor	Assistant professor, assistant, others not on career track
Canada	Professor	Associate professor, assistant professor
Finland	Professor, assistant professor, principal lecturer, other senior	Researcher, senior researcher, assistant, lecturer, other junior
Germany	Professor C4, W3, C3, W2, C2 or similar	Junior professor, other professor (Hochschullehrer), other academic position above entry level, other academic position on entry level or below, other
Japan	Professor, associate professor	Lecturer, research associate, other
Malaysia	Professor, associate professor	Senior lecturer, assistant professor, lecturer, other
Portugal	University full professor, university associate professor, polytechnic coordinating professor	All other ranks
South Africa	Director, postgraduate academic assistant, principal lecturer, head of division	Researcher, chief programmer, technician
UK	Professor, senior lecturer/researcher/reader	Lecturer, researcher, other
USA	Professor, associate professor	Assistant professor, lecturer, other

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ERRATUM TO

Chapter 3 Factors Associated with Job Satisfaction Amongst Australian University Academics and Future Workforce Implications

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In table 3.2, some of the values are incorrect. Please find below the correct table.

Table 3.2 Variable means, standard deviations, Pearson correlation coefficients with job satisfaction index, respondents (n) and descriptions

	Mean	SD	Corr.	n	Variable description
<i>Motivators and Hygienes</i>					
Publications index ^a	2.52	1.59	0.08*	978	Square root transformation of publications in the previous three years
Recognition ^b	0.43	0.50	0.00	950	Elected academic leadership position or scientific board member
Available research time ^b	0.78	0.41	0.11**	1,056	At least 30% research time (primary research interest); or 20% research time (research and teaching interest); or primary interest in teaching
Junior rank ^b	0.52	0.50	-0.07*	1,097	Lecturer and below (level A/level B)
Middle rank ^b	0.25	0.43	-0.05	1,097	Senior lecturer (level C)
Senior rank ^b	0.23	0.42	0.14**	1,097	Associate professor/professor (level D/level E)
Institutional resources ^c	3.22	0.68	0.39**	1,090	Degree of satisfaction with 12 institutional resource variables

(continued)

Table 3.2 (continued)

	Mean	SD	Corr.	n	Variable description
<i>Demographics</i>					
Male ^b	0.50	0.50	0.04	1,006	Male
Group of Eight university ^b	0.42	0.49	-0.02	1,097	Employed at a Group of Eight university
ATN university ^b	0.21	0.41	0.05	1,097	Employed at an Australian Technology Network university
Other university ^b	0.36	0.48	-0.02	1,097	Employed at another university
Social sciences ^b	0.33	0.47	-0.01	871	Current academic unit in the social sciences
Humanities ^b	0.14	0.34	-0.01	871	Current academic unit in the humanities
Natural sciences ^b	0.22	0.41	0.02	871	Current academic unit in the natural sciences
Technology ^b	0.06	0.24	0.02	871	Current academic unit in technology or engineering
Medicine ^b	0.25	0.44	-0.01	871	Current academic unit in the medical/health sciences
<i>Environment</i>					
Poor student quality ^c	3.61	1.17	-0.23**	867	Agreement that one spends too much time teaching basic skills to students
Dept. influence ^d	2.38	1.00	0.17**	940	Perceived influence at the departmental level
Administration processes ^c	2.54	0.83	0.46**	998	Degree of satisfaction with 4 administration support variables
<i>Triggers</i>					
Early career ^b	0.26	0.44	-0.01	998	Under 40 years of age
Midcareer ^b	0.52	0.50	-0.11**	998	40 to 55 years of age
Late career ^b	0.23	0.42	0.14**	998	Over 55 years of age
Recently promoted ^b	0.73	0.44	0.11**	1,014	Promoted/appointed to current rank within the last 5 years
New appointment ^b	0.43	0.50	0.07*	1,033	Less than 4 years at current institution

Statistical significance: ** $p < 0.01$ * $p < 0.05$

Notes: ^aScale variable; ^bDichotomous variable; ^cFive-point ordinal variable; ^dFour-point ordinal variable

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