Chapter 3
Academic Work, Working Conditions and Job Satisfaction

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3.1 Introduction

In this analysis of changing academic work, working conditions and job satisfaction in Europe, we present the academics' assessment of facilities, resources and personnel. Subsequently, an overview will be provided about the academic workload and allocation of time between the four major types of academic activities: teaching, research, service and administration. A further section will discuss job satisfaction and academics' income.

This chapter provides a general picture of the variety of views and activities in 12 European countries, where differences between junior and senior academic staff and between academics at universities and at other higher education institutions are presented, whenever relevant. As will be shown below, the facilities and resources are predominantly assessed positively by European academics, with the least positive scores for research funding. Hence, the ratings of those at universities are more positive than of those at other higher education institutions. We also note substantial differences in the assessments of junior and senior academics. Assessments are by and large most positive in Finland, Norway, Switzerland, the UK and the Netherlands. Self-declared hours spent on academic work vary as well between European countries, between junior and senior academics and between academics at universities and academics at other higher education institutions. The longest hours spent at work in higher education institutions (when classes are in session) are reported, on average, by all academics in Ireland, Italy and Poland and the shortest in the

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Netherlands, Norway and Portugal. The weekly mean time ranges from 27 h per week (junior staff in Norway) to 52 h per week (senior staff in Germany). Senior staff works longer hours than junior staff in all countries.

Differences in the amount of time spent on teaching and research are striking: academics at universities spend substantial amounts of time on research, when classes are in session, in Switzerland, Norway, Germany and Austria, while substantial time is devoted to teaching in Portugal, the Netherlands, Poland and Ireland. Overall, the academic profession in Europe in the countries studied reveals relatively high levels of job satisfaction – notably in Switzerland, the Netherlands and Italy. They are lowest in Portugal, Ireland and the UK. In some countries, such as Germany, Italy and Switzerland, senior academics are clearly more satisfied than junior and senior academics, while in other countries, such as Norway and the Netherlands, this difference is negligible. However, many academics argue that they work under considerable strain. Altogether, about one-sixth or more would not opt for the academic profession if they had to choose again.

Finally, this chapter indicates striking differences in the academics' income across Europe. At universities, the highest income is reported for both junior and senior academics in Switzerland, followed by the Netherlands and the UK. Academics at other higher education institutions across Europe have, on average, a higher income than those at universities, the only exception being Portugal. This reflects the fact that universities employ substantially larger proportions of junior staff who are generally not as highly paid as senior staff.

The work situation of academics is changing substantially, and this change is central for the academic profession as a whole, as prior analyses underscore. Enders and de Weert (2009a: 252–253) cite five "drivers" as central in changing the nature of the academic profession: massification of higher education, expansion of research, growing emphasis on the societal relevance of higher education and research, globalisation and internationalisation and marketisation policies and practices and managerialism. Similarly, Kogan and Teichler (2007: 10–11) and Brennan (2006, 2007) cite three pervasive recent trends in higher education: relevance, internationalisation and management. Some other analyses refer specifically to financial constraints, differentiation of higher education systems, competitive forces and a growing uncertainty of the academic profession: "We live in times of uncertainty about the future development of higher education and its place in society and it is therefore not surprising to note that the future of the academic profession seems uncertain, too" (Enders and Musselin 2008: 145). This chapter discusses some uncertainties related to academic work and working conditions, comparing the academics' views and activities as presented in the surveys undertaken in 12 European countries.

3.2 Assessment of Facilities and Resources

The academics in the 12 countries were asked to assess the facilities and resources provided by their institutions for their work. Twelve items – classrooms, technology for teaching, laboratories, research equipment and instruments, computer facilities,

library facilities and services, office space, secretarial support, telecommunications, teaching support staff, research support staff and research funding – were rated on a scale from 1 = "excellent" to 5 = "poor".

As Table 3.1 shows, the majority of academics in most countries assessed *classrooms* positively. This holds true for more than 70% professors in Switzerland and Finland. In contrast, just over half in Poland (51%) and less than 40% in Italy (38%) and in the UK (36%) were satisfied in this respect. The ratings by junior staff are similar on average within the individual countries. The only noted difference is in Portugal, with 64% of senior staff and only 47% of junior staff positively assessing classroom facilities.

The technology for teaching is viewed positively. Positive ratings are again most frequent among all academics in Switzerland (78%) and Finland (70%) and least frequent among their colleagues in the United Kingdom (42% each) and Italy (36%). In most countries, senior academics are more satisfied with the technology for teaching than junior academics, but there is no such difference in the UK and the Netherlands. In Germany, Ireland and Norway, junior academics rate it more positively than senior academics.

Laboratories are positively assessed by about half the academics. Positive statements are most frequent in Switzerland (69%), but far below average in the Netherlands (33%), Poland (38%), Italy (29%) and Portugal (36%). There is little difference between the assessments given by senior and junior academic within the countries. On average, the senior staff are more satisfied, and it is only in Norway and the UK that the assessments by junior academics are clearly more favourable than those of senior academics. One could assume that lower expectations rather than the availability of good laboratories explain this finding.

Assessments of *research equipment and instruments* vary strikingly by country. The ratings in Switzerland (73% of senior and 70% of junior academics) contrast very favourably with those in Italy (32 and 28%), Portugal (39 and 28%) and Poland (36 and 33%). Ratings by senior and junior academics are similar on average in most countries. In Norway, however, junior academics are more satisfied than senior academics (59% as compared to only 38%), whereas the opposite is true for Portugal (39% vs. 28%). It reflects a completely different logic of social structure of academic communities in these two countries.

In most countries, the majority of professors assess *computer facilities* positively – mainly in Switzerland, Finland and Norway (more than 70% each). This applies, however, to only less than half in Poland, Portugal, Italy and the UK. In more than half of the countries, senior academics rate computer facilities better than junior academics, but almost no such difference exists in the Netherlands and Finland. Junior academics rate these resources more positively in Ireland and Norway.

Library facilities and services are highly appreciated by more than 70% of the academics in Norway, Ireland, Switzerland and Finland, but only by about half in Portugal, Germany, the UK and Italy. Positive ratings seem to be reinforced by a high level of digitalisation and access to digital resources worldwide. It is worth noting that junior academics in half of the countries rate library facilities and services more positively than senior academics; the opposite is true only in Italy, Portugal and Poland.

Table 3.1 Positive assessment of facilities and support (percentage, at both types of higher education institutions)

	2010					2007/2008					
	AT	CH	IE	PL	NL	DE	FI	IT	NO	PT	UK
Classrooms											
Total	54	72	57	49	57	50	71	37	58	48	37
Senior	55	73	53	51	58	47	74	38	55	64	36
Junior	52	72	59	46	55	51	70	35	62	47	37
Technology for teaching											
Total	58	78	64	42	58	53	70	36	61	50	42
Senior	60	79	61	47	58	51	72	37	58	55	42
Junior	57	78	66	38	58	54	69	35	63	51	42
Laboratories											
Total	45	69	61	38	33	53	53	29	44	36	43
Senior	51	74	56	41	33	53	55	29	40	47	41
Junior	44	68	62	35	33	52	53	28	47	34	44
Research equipment and instruments											
Total	47	70	55	34	36	53	53	31	51	30	39
Senior	51	73	59	36	37	40	51	32	38	39	35
Junior	48	70	53	33	35	56	53	28	59	28	41
Computer facilities											
Total	61	76	69	43	61	64	72	44	75	43	45
Senior	69	80	69	47	61	66	72	47	73	50	48
Junior	59	76	70	40	60	64	71	39	76	42	44
Library facilities and services											
Total	63	70	73	63	63	50	76	53	78	46	52
Senior	61	70	71	67	61	46	70	56	72	55	51
Junior	64	70	73	59	65	52	77	49	82	46	53
Your office space											
Total	62	64	63	49	59	60	67	44	68	45	42
Senior	74	64	67	54	63	62	76	48	74	56	46
Junior	59	64	60	45	56	60	64	38	64	44	40
Secretarial support											
Total	44	56	42	50	45	47	55	33	25	32	34
Senior	37	53	42	53	44	39	47	34	19	26	28
Junior	44	57	42	47	45	49	57	31	29	34	36
Telecommunications											
Total	81	85	80	70	70	80	81	64	84	52	52
Senior	85	84	81	72	71	77	82	66	84	61	53
Junior	80	85	80	67	69	82	81	61	85	51	52
Teaching support staff											
Total	27	46	40	19	36	26	43	15	22	24	35
Senior	23	46	37	22	37	23	36	16	17	25	36
Junior	28	47	42	17	35	27	44	14	26	23	35
Research support staff											
Total	26	48	31	21	27	27	34	17	16	17	32
Senior	24	50	31	23	28	21	28	18	12	18	28
Junior	25	48	31	18	25	29	36	15	20	17	35

(continued)

Table 3.1 (continued)

	2010					2007/2008					
	AT	CH	IE	PL	NL	DE	FI	IT	NO	PT	UK
Research funding											
Total	14	46	20	9	18	24	22	8	23	17	17
Senior	12	37	20	10	18	15	19	8	18	18	13
Junior	15	48	19	8	19	27	23	7	26	17	20

Question B3: At this institution, how would you evaluate each of the following facilities, resources or personnel you need to support your work? (Scale of answers from 1 = excellent to 5 = poor)
Responses 1 and 2 added among senior and junior academics
For country codes, please see Table 1.1 in Chap. 1

In most countries, the quality of *office space* is generally appreciated, notably by about two-thirds of the academics in Finland, Norway, Switzerland and Ireland, while less than 45% are satisfied in this respect in Italy and the UK. Ratings of office space given by junior staff are slightly less positive than those of senior staff. Only in Switzerland are the ratings of junior and seniors equal.

Secretariat support is only positively assessed by most academics in Switzerland (56%) and Finland (55%). This contrasts with few positive ratings given by academic in Norway (25%), Portugal (32%) and the UK (34%). It is interesting to note that in Austria, Switzerland, the Netherlands, Germany, Finland, Norway, Portugal and the UK, junior staff, on average, show greater satisfaction than their senior colleagues. This could be due to substantially lower expectations on their part. The opposite trend is only observed in Italy. In Ireland, the ratings of senior and junior staff are the same (42%).

Telecommunications were most positively assessed among all the facilities and resources addressed in the questionnaire. Ratings exceed 70% in most countries both among senior and junior academics, while the lowest score – in Portugal and the UK (52%) – is slightly over half. Differences between the ratings of senior and junior academics are negligible except for Portugal where those of juniors are lower (61% as compared to 51%).

Teaching support staff is poorly assessed in all countries, with highest positive ratings in Switzerland (46%) and Finland (43%) and lowest ratings in Italy (15%), Poland (19%) and Norway (22%). Teaching support staff is more positively viewed by junior than by senior academics in Poland, the Netherlands, Italy, Portugal and the UK. The opposite situation is found in Austria, Switzerland, Ireland, Germany, Finland and Norway. By and large, the differences are not significant, with the exceptions of Norway (17% senior – 26% junior) and Finland (36% senior and 44% junior).

The ratings of *research support staff* are similar, with the most positive assessments again in Switzerland (48%) and Finland (34%) and the least positive in Norway (16%), Italy (17%) and Portugal (17%). In this respect, junior academics make slightly more positive statements in Austria, Germany, Norway, the UK and Finland, whereas junior staff is slightly less positively impressed in Switzerland, Poland, the Netherlands, Portugal and Italy.

Research funding is the least often positively assessed among research facilities. In many countries, only by about one-fifth of academics gave positive ratings. Exceptional positive ratings are found only in Switzerland (46%). This underscores the general picture of Switzerland as the country with best facilities for academic work in Europe. The least positive ratings are again found in Poland (9%) and Italy (8%). In the vast majority of the countries, junior faculty members provide better assessment of research funding than their senior colleagues, except in Portugal, Ireland, Poland and Italy. These relatively positive ratings by junior academics, again, could reflect different expectations but could also be caused by the professors' impression that research funding has declined over time.

Overall, the facilities and resources are more positively assessed by academics at universities than by academics at other higher education institutions (not presented in Table 3.1). This is consistently true in those countries where the ratings by universities are very positive (Switzerland and Finland, but also Norway, the UK and the Netherlands). In other countries, where the ratings by academics at universities are less positive, the facilities at other institutions are equally or even more positively assessed, at least according to some categories. For example, the teaching conditions are in some respects more positively assessed at other higher education institutions. Finally, the facilities and resources are similarly assessed in Poland by academics in both types of higher education institutions: unlike in other countries, massification of higher education could have led to a loss of distinction in the quality of working conditions between the higher education sectors.

3.3 Workload and Allocation of Work Time

It is widely assumed that academics in Europe are expected to spend about 40% of their time on teaching, 40% on research and the remaining 20% on service and administration. The mix of research and teaching, as Burton Clark pointed out, "comes close to determining everything else about academic life" (see de Weert 2009: 136). The distribution of time, however, varies by institutional types, and national systems of higher education and research vary in terms of institutional compositions: whether all or only some higher education institutions are more or less equally in charge of higher education and whether most publicly funded research is accommodated at higher education institutions or in substantial parts outside higher education. For many years, a distinction has been made between unitary and binary systems in higher education. A more recent typology by de Weert (2009: 140–141) takes for granted that the distinction between universities and other higher education institutions becomes blurred in the Bologna Process. de Weert, therefore, cites three models: (1) integrated systems (Germany, Italy, Austria – as well as most Central European systems except Romania, including the biggest system in the region, Poland); (2) concentration of research in a separate set of research institutes (France); (3) vertical institutional differentiation in the national system (the Anglo-Saxon tradition).

Table 3.2 Weekly working hours when classes are in session (arithmetic mean, both types of higher education institutions)

	2010					2007/2008					
	AT	CH	IE	PL	NL	DE	FI	IT	NO	PT	UK
Senior academics	49	49	50	45	40	52	46	46	42	41	47
Junior academics	41	41	45	45	37	38	41	44	27	39	42
All academics	42	42	47	45	38	41	42	46	33	40	44

Question B1: Considering all your professional work, how many hours do you spend in a typical week on each of the following activities? (Hours per week)
Here, part-time and full-time academics are mixed

In the study, academics from all types of institutions were asked to state the number of weekly hours each for the period when classes are in session and when classes are not in session. They were asked to subdivide the time according to teaching, research, administration, service and other activities. The longest average weekly hours when classes are in session are reported by all academics, that is, senior and junior academics at both types of higher education institutions. They are in Ireland (47 h per week), Italy (46 h) and Poland (45 h).[1] The average also exceeds 40 h per week in more than half of the countries, slightly less than 40 h in the Netherlands and Portugal and only 33 h in Norway (see Table 3.2).

Overall, academics in Europe estimate their weekly working time when classes are in session at between 27 h (junior staff in Norway) and 52 h (professors in Germany). On average, senior academics work more hours than junior staff. This difference ranges from almost 15 more hours in Norway and Germany to more or less the same time in Poland. Only part of this difference is due to the fact that part-time employment is more widespread among junior staff than among senior staff.

Of all the academics surveyed in the respective countries, those in Switzerland (44%), Norway (43%), Germany (41%) and Austria (39%) spend on average most hours on research. As Table 3.3 shows, academics in Finland spend more or less the same number of hours on teaching and research while classes are in session, while those in Portugal (54%), the Netherlands (54%), Poland (44%) and Ireland (43%) state that they spend more time on teaching than on research. Somewhat surprisingly, Poland, commonly believed to have teaching-focused higher education institutions, is not at the bottom of the list concerning time spent on research.

When classes are not in session, academics spend on average less than one-fifth of their time on teaching (including all teaching-related activities) and more than half their time on research. Teaching activities take the relatively largest share in the Netherlands (32%), Portugal (27%) and Poland (22%), while research is most widespread during this period in Norway (66%), Italy and Austria (59% each).

The time spent by junior academics on research as compared to that on teaching varies more strikingly between countries than in the case of senior academics. In some countries, a substantial share of junior academics is only in charge of teaching,

[1] That is, the means of all national means.

Table 3.3 Weekly hours spent on teaching and research when classes are in session and when classes are not in session (arithmetic mean of percentages, both institutional types)

	2010					2007/2008					
	AT	CH	IE	PL	NL	DE	FI	IT	NO	PT	UK
Teaching											
When classes are in session	30	27	43	44	54	32	39	41	34	54	38
When classes are not in session	13	12	19	22	32	16	19	18	11	27	17
Research											
When classes are in session	39	44	26	32	22	41	40	37	43	28	31
When classes are not in session	59	56	47	50	40	56	58	59	66	51	51

Question B1: Considering all your professional work, how many hours do you spend in a typical week on each of the following activities? (Hours per week) (A) Teaching: Preparation of instructional materials and lesson plans, classroom instruction, advising students, reading and evaluating student work. (B) Research: Reading literature, writing, conducting experiments, fieldwork. (C) Service: services to clients and/or patients, unpaid consulting, public or voluntary services. (D) Administration: committees, department meetings, paperwork. (E) Other academic activities: Professional activities not clearly attributable to any of the categories above

Table 3.4 Weekly hours spent on teaching and research when classes are in session (arithmetic mean of percentages, both institutional types)

	2010					2007/2008					
	AT	CH	IE	PL	NL	DE	FI	IT	NO	PT	UK
Teaching											
Senior academics	29	30	32	43	41	35	42	40	42	44	40
Junior academics	29	19	41	45	49	27	28	42	26	52	36
Research											
Senior academics	34	35	30	32	33	31	28	37	30	30	27
Junior academics	41	56	29	33	33	48	55	38	58	31	34

Question B1 (as in Table 3.3)

and in some countries, junior staff has a smaller teaching load than senior staff in order to qualify for a professorship, predominantly through research achievements (notably those who have not yet been awarded a doctorate); in other countries, in contrast, junior academics have a similar or higher teaching load than senior academics. Juniors notably spend more time on average than senior academics, when classes are in session, in Norway (58% vs. 30%), Finland (55% vs. 28%) and Switzerland (56% vs. 35%). In contrast, as Table 3.4 shows, juniors and seniors spend about the same amount of their work time on teaching and research when classes are in session in Ireland, Poland, the Netherlands and Portugal.

Also at times, when classes are not in session, senior academics altogether across countries spend slightly more time than junior academics on teaching. Again, there are variations between countries: While junior academics in Norway spend substantially more time on research during this period than senior academics, this difference is small in Ireland and Portugal.

In explaining the time share between teaching and research, we cannot only refer to the above-stated national distinction to understand the research and teaching roles of junior staff and senior staff. In addition, senior staff, on average, spends more time on other functions: service, for example, services to clients and/or patients, unpaid consulting and public or voluntary services, and administration, for example, work in committees, department meetings and paperwork. For example, administrative work can be viewed as both (time-consuming) privilege and duty for senior academics, while juniors cannot play a central role in intra-institutional decision-making.

Furthermore, higher education institutions in some countries (e.g. Switzerland, Finland, Ireland, Germany, the Netherlands and Portugal) are subdivided into universities which are more or less equally in charge of teaching and research and other higher education institutions which are predominantly in charge of teaching on the one hand and those with no such a clear institutional divide (e.g. Italy, Poland and the United Kingdom) on the other.

Moreover, we must take into consideration that teaching and research are, to a different degree, regulated or open to individual choices. Clark (1987: 72–73) pointed out that teaching loads were defined for most academics, whereas "'the research load' was not part of the vocabulary", and research was carried out "in time freed from teaching". Professors are "saving hours for research". Time spent on administration is "time diverted": "it may be mandated, but it steals away from something more basic and is seen as more of a burden; more time for research is not. Time spent on administration, we may note, is widely viewed as wasted, often not even regarded as a legitimate demand" (Clark 1987: 72–73). The personal options to spend more time on teaching or on research are influenced by the academics' views about the trade-offs and tensions between teaching and research (see Enders and Teichler 1997). In recent years, the academics' activities seem to become more diversified, whereby the demands from different directions seem to grow. For example, the ability to raise money and to manage research projects based on external funding, as Musselin (2007: 177) points out with reference to Germany and the US, "is no longer something academics can do: it is something they must do". Not surprisingly: "the traditional job of the professor is expanding to include entirely new kinds of responsibilities" (Altbach 2007: 153). This seems to be increasingly the case throughout most competitive European higher education systems. We observe "blurring boundaries between traditional roles and quasi-entrepreneurial roles.… Academics are, for example, increasingly expected to raise their own research funding, and success in leveraging funding becomes more and more important for both the institution and the individual faculty member" (Enders and Musselin 2008: 145). Hence, increasingly diversified academic activities and new responsibilities, or changing the balance between responsibilities, seem to contribute to professional stress and have an impact on academic satisfaction. Many academics believe that they are required "to do more with less" (Welch 2007: 11), and that there are "imperatives for faculty to do 'more'" (Schuster and Finkelstein 2006: 75–134). Therefore, it is interesting to note how many academics consider their job as a strain and how many are dissatisfied.

3.4 Job Satisfaction

Overall, the academic profession in Europe in the countries studied seems to bring relative satisfaction. On the scale from 1 = "very high" to 5 = "very low", senior academics at both institutional types in Switzerland, the Netherlands and Italy rate their job satisfaction in the 1.9–2.1 range, in Austria, Finland, Poland and Norway 2.2, and in Germany 2.3. As Table 3.5 shows, the ratings are 2.4 each in Portugal and Ireland, while the mean of 2.6 in the UK expresses the highest level of dissatisfaction in Europe. The ratings by junior staff are slightly less positive (2.4 as compared to 2.2) across countries. The most obvious difference with senior staff is a lower degree of satisfaction in Portugal (2.8 vs. 2.4) and Switzerland (2.2 vs. 1.9).

The share of those who are satisfied with their job (scores 1 and 2 on a five-point scale) is highest among seniors in both types of higher education institutions in Switzerland (82%) and the Netherlands (78%). It ranges from two-thirds to three-quarters in most countries and is only lower in Ireland (60%) and substantially lower in the United Kingdom (49%). Conversely, the share of those who are dissatisfied is 18% in Ireland, 16% in the UK and between 5 and 13% in the remaining countries. The only European country which clearly stands out is the UK. The situation is not very different from what was reported in the academic profession studies in the 1990s and 2000s (e.g. Fulton and Holland 2001).

The data suggest that job satisfaction does not differ substantially between academics in universities and those in other higher education institutions. This holds true for both senior and junior academics. It allows us to have a more detailed analysis of academics in universities who have been under growing political and (in particular) economic pressure. With growing various expectations aired by external stakeholders, the traditional role of universities has recently been questioned, as has the traditional role of a faculty. Under the circumstances, it is worth drawing attention to the job satisfaction of university academics.

Table 3.6 shows the extent of job satisfaction at universities. We see that the gap of job satisfaction between senior academics and junior academics varies substantially by country. We hardly note this gap in Norway (2%) and the Netherlands (3%). In contrast, junior academics are clearly less satisfied than senior academics at universities in Germany (16% difference), Italy (15%) and Switzerland (14%).

The respondents from universities were also asked to react to the following statement: "This is a poor time for any young person to begin an academic career in my field". As Table 3.7 shows, this view is shared most frequently by both senior and junior university academics in Austria and Italy (2.0). The most optimistic views of the academic career opportunities for young people were found in Norway, Switzerland and the Netherlands. It is interesting to note that they are not viewed most pessimistically in those countries where academics express a low degree of job satisfaction. Academics in the United Kingdom and Portugal – that is, the countries with a low average job satisfaction – do not view the future as particularly bleak.

Table 3.5 Overall job satisfaction (arithmetic mean[a], both institutional types)

	2010					2007/2008					
	AT	CH	IE	PL	NL	DE	FI	IT	NO	PT	UK
Senior academics	2.2	1.9	2.4	2.2	2.1	2.3	2.2	2.1	2.2	2.4	2.6
Junior academics	2.4	2.2	2.5	2.4	2.2	2.6	2.3	2.4	2.3	2.8	2.8

Question B6: How would you rate your overall satisfaction with your current job?
[a]Responses on a scale from 1 = very high to 5 = very low

Table 3.6 Overall job satisfaction (percentage, universities)

	2010					2007/2008					
	AT	CH	IE	PL	NL	DE	FI	IT	NO	PT	UK
High satisfaction[a]											
Senior academics	73	83	59	67	76	71	72	70	69	66	49
Junior academics	60	69	53	58	73	55	65	55	67	54	43
Low satisfaction[b]											
Senior academics	13	6	19	8	8	10	6	5	9	9	15
Junior academics	12	9	18	11	10	16	10	10	9	18	20

Question B6: as in Table 3.5
[a]Responses 1 and 2 added
[b]Responses 4 and 5 added

Table 3.7 Assessment of young persons' academic career prospects (arithmetic mean[a], universities)

	2010					2007/2008					
	AT	CH	IE	PL	NL	DE	FI	IT	NO	PT	UK
Senior academics	1.8	3.2	2.6	2.9	3.1	2.9	2.5	2.0	3.4	2.9	2.6
Junior academics	1.8	3.2	2.7	2.8	2.9	2.9	2.7	1.8	3.7	2.9	2.6

Question B5: Please indicate your views on the following: "This is a poor time for any young person to begin an academic career in my field"
[a]Responses on a scale from 1 = strongly agree to 5 = strongly disagree

Job satisfaction was also addressed in an additional statement in the questionnaire: "If I had it to do over again, I would not become an academic". On average, across countries, 15% of the senior academics and 17% of the junior academics state that they would not do it again. As Table 3.8 shows, the most negative views are expressed by university academics in the United Kingdom (22% among seniors and 30% among juniors). It is worth noting the responses by academics in Finland: while senior academics respond very positively to this statement with only 9% of negative responses, juniors are among those who react fairly negatively (20%).

Table 3.8 Willingness to become an academic again (percent[a], universities)

	2010					2007/2008					
	AT	CH	IE	PL	NL	DE	FI	IT	NO	PT	UK
Senior academics	16	13	14	17	18	17	9	9	15	15	22
Junior academics	17	14	13	18	15	19	20	15	17	15	30

Question B5: Please indicate your views on the following: "If I had it to do over again, I would not become an academic"

[a]Responses 1 and 2 on a scale from 1 = strongly agree to 5 = strongly disagree

The same questions and items as regards job satisfaction had been asked in the Carnegie survey undertaken in 1992. Thus, a comparative trend analysis is possible for three European countries: Germany, the Netherlands and the UK. For example, in 1992, 42% of academics in the UK, 36% in Germany and 29% in the Netherlands agreed with the statement about "a poor time for any young person to begin an academic career". Thirteen percent of academics in the Netherlands, 17% in Germany and 20% in the UK responded that they would not become academics if they had to do it over again. At that time, the responses by academics in Germany were among the most negative ones in the Carnegie survey. Thereafter, changes moved in different directions: academics in Germany became more positive in various dimensions of job satisfaction, while the opposite was true for academics in the United Kingdom.

Finally, both the Carnegie study and the recent EUROAC study explored the number of academics who considered their job as a source of strain. They also aimed to establish how responses to this question were related to the academics' overall job satisfaction.

As the Carnegie survey report put it, "one wonders about the personal strain among professors. How much does it reflect financial worries? How much does it involve frustration over inadequate facilities and technical support? How much does it reflect the contradictory signals faculty are often given about the value of their work?" (Boyer et al. 1994: 14). All these questions are relevant today, but it is still hard to link professional stress directly to all of them: in the present survey, only the overall level of remuneration, the overall satisfaction with different facilities and a number of points related to intrinsic and extrinsic value of academic work were reported. What is certainly clear is that the causes for professional stress are many. In some countries, they are more related to income, in others to increasingly managerial management styles or measuring effectiveness through performance indicators.

More than half of the academics at universities both in the United Kingdom (61% among seniors and 56% among juniors) and the Netherlands (56 and 58%) see their job as a source of strain. Table 3.9 suggests that the European averages are somewhat lower (43% each) and that the job is seen much less frequently as a source of strain in Italy (27 and 35%) and Norway (34 and 35%).

In comparing the findings with those of the Carnegie study, we note that strain seems to have increased in both European countries for which data are available at both points in time. However, greater strain increase was found in the United Kingdom

Table 3.9 Views that the job is a source of considerable personal strain (percentage[a], universities)

	2010					2007/2008					
	AT	CH	IE	PL	NL	DE	FI	IT	NO	PT	UK
Senior academics	43	40	47	34	56	48	51	27	34	38	61
Junior academics	42	41	42	40	58	36	46	35	35	47	56

Question B5: Please indicate your views on the following: "My job is a source of considerable personal strain"

[a]Responses 1 and 2 on a scale from 1 = strongly agree to 5 = strongly disagree

(from 45 to 61% among senior academics and from 49 to 56% among junior university academics) than in Germany (from 41 to 48% and from 32 to 36%).

Overall, there are marginal differences between academics from universities and from other higher education institutions, but several points need to be made. In Switzerland, Ireland and Germany, an academic job at a university seems to be a considerably greater source of strain than a job in the non-university sector. This is notably the case in Switzerland (41% vs. 30%) and Ireland (44% vs. 32%). In a few other countries, the opposite holds true.

3.5 Links Between Income and Job Satisfaction

Job satisfaction, from a global perspective, is also linked to income, which is an important factor in determining the overall shape of the academic profession. It is linked to the ability of academic institutions to attract and retain able individuals (Schuster and Finkelstein 2006: 234). Competitive salaries can be expected to draw the brightest graduates and doctoral students to the academic profession, especially when universities are increasingly treated like other organisations in both the public and private sectors. The prestige of the academic profession is relatively high but, globally, diminishing. Young academics are being compared to young professionals and university professors to advanced professionals. High job security and a friendly, non-competitive workplace are less and less common throughout Europe, as reported by indicators such as personal stress, individual affiliations, academic freedom and pressures to publish or obtain competitive, external funding.

As Philip Altbach and colleagues recently stressed in their global survey about academic salaries, "central to the working conditions of the professoriate is remuneration.… We are convinced that successful universities and academic systems must offer their academic staff adequate and assured salaries, along with the option to pursue a full-time career path with appropriate guarantees of long-term employment. Without these conditions, no academic institution or system can be successful – let alone achieve world-class status" (Rumbley et al. 2008). University professors in Europe and in North America were traditionally members of the (often upper-) middle classes and their financial status in the post-war period was relatively stable. But in most European countries, academic incomes seem not to

have caught up with those of other professionals in the last two decades. References to the "proletarisation" of the academic profession have been heard more often in higher education research (see, for instance, Fulton and Holland 2001; Enders and de Weert 2009b). So far, the general rules have been clear: "along with full-time commitment, salaries must be sufficient to support a middle-class lifestyle. … professors must be solid members of the middle class in their country" (Altbach 2007: 105). In all the European countries studied, these conditions seem to be met for senior academics; for junior academics, the link has been much weaker. Overburdened, overworked and (relatively, compared with other professionals) underpaid academics will not be able to make European universities strong and attractive (and as Cavalli and Moscati concluded recently, "underpayment and an uncertain future make the academic profession less appealing when compared with other professions in almost every country", 2010: 50).

Current global trends show the diminishing attractiveness of the academic career, academic workplace and academic remuneration and, consequently, may indicate growing future problems in the retention of best talents in academia in the future. Attractive higher education systems should be able to offer academics competitive career opportunities. The widening gap between the economic status of academics and other professionals needs to be stopped, at least in top national institutions, to avoid further "greying" of the academic profession and to make universities a career option for the best talents. In the context of the current economic crisis in Europe, it must be stressed that, historically, and based especially on the US experience, budget cuts in higher education in financially harsh times have always been disproportionately higher than in other public services.

Globally, academic working conditions and remuneration have been deteriorating, as was documented by comparative studies edited by Altbach (2000, 2002; Rumbley et al. 2008). Teichler and Yağcı stressed that "in a substantial number of countries, the salary level of academic staff in higher education and research institutions is far too low to earn a living" (Teichler and Yağcı 2009: 108). But European countries do not seem to follow this pattern. Overall, while global comparative academic profession literature shows the clear links between job satisfaction and academic incomes, especially in middle-income and developing countries (Altbach 2000; Welch 2007), in the specific context of the high-income European countries studied in the survey, the links are weak.

Several cross-country differences in academic incomes need to be stressed. The survey reveals significant differences in academic incomes across Europe and shows that the highest median income for both junior and senior respondents is in Switzerland, followed by the Netherlands, Italy and Norway. At the other end of the spectrum, there are countries where academics earn considerably less, such as Poland. This difference is substantial, but it is not surprising, considering both national GDP and the average salaries of professionals in these countries. There is a third, largest group of countries for which cross-national differences between the income of academics are small (see Chap. 2 for details). Academic incomes substantially increase with the progression in the academic career: professors in all

systems report considerably higher income than the juniors (on average, professors earn approximately twice as much as their junior fellows except in Switzerland where the income gap is larger). The UK and the Netherlands stand out as countries with the smallest differences in distribution of income between senior and junior academics. Academics employed at other higher education institutions in general have higher incomes than university academics, with the exception of Portugal. The greatest differences between academic incomes at universities and other higher education institutions are in Germany and Finland. The explanation could be in some countries that the non-university sector has a strong focus on applied sciences and has traditionally been closely linked to the business sector and can provide much more attractive financial conditions for academics than the university sector. In other countries, the substantially lower proportion of junior staff at universities explains this difference.

3.6 Conclusion

The academic profession in Europe is very much under pressure and working under considerable personal strain. Even though academics work beyond routine hours, they are relatively satisfied and consider their working conditions as good or acceptable. Across Europe, they assess their current access to research funding as lowest among the various categories of facilities, resources and personnel. On average, there is no enthusiasm in Europe about academic work and working conditions, but there are no complaints. Seniors and juniors differ substantially in their employment situation, as another chapter in this volume shows (see Chap. 2), but, in most countries, they differ only moderately in their perception of the work situation and their job satisfaction. It can be argued that between seniors and juniors, there are substantial differences in employment conditions, some differences in working conditions and very similar attitudes to research, teaching, university governance, etc. (as also shown in other chapters). There are significant cross-country differences in Europe. Some higher education systems seem more academic-friendly (e.g. Switzerland) and less academic-friendly (e.g. the United Kingdom), to give two extreme cases. About one-sixth or one-fifth of academics would not enter the academic profession if they had a choice, which is a powerful warning for some countries (especially the UK where the reported rate is 22% for senior and as high as 30% for junior staff).

The commitment to research as a university mission differs drastically across Europe between institutional types and between junior and senior academics, with some systems clearly more research-oriented (e.g. Switzerland and Norway) and some clearly more teaching-oriented (e.g. the Netherlands, Ireland and Portugal).

What seems to be gone is the golden age of the research university professor (which perhaps existed only as an idea or as a reference point for generations of scholars looking back to their predecessors). The number of academics has radically

increased in the last few decades following the massification of higher education throughout the continent. A sense of nostalgia, or even loss, of good old times among academics seems perhaps inevitable. National systems count up to two million students in the biggest economies (France, Germany, Italy, the UK, Poland and Spain), with more than 100,000 academics in each. As Burton Clark put it, "the size of the profession affects the strength of its cultural bonds. One of the reasons why older professors in numerous systems can reminisce happily about their lives in the old days of 'elite' higher education is that the overall profession was much smaller" (Clark 1983: 93). The academic profession of today is becoming increasingly differentiated between various academic professions, as it is clearly empirically demonstrated in the EUROAC project, with different perceptions, norms, working habits and incomes across not only different countries but also across generations, research fields and institutional types within the countries studied. The processes of stratification of the academic profession(s) are well advanced across the continent.

In the last two or three decades, the transformations of the European higher education systems have been substantial, with a significant impact on the academic profession. Today, the growing complexity of the academic enterprise leading to growing uncertainty about its future is also due to the fact that higher education systems in Europe have been under great reform pressures in the last two or three decades, following the huge reforms of the 1960s and early 1970s. Recent reform initiatives lead to current reform initiatives which, in turn, may lead to new reform initiatives (not only in Europe but, globally, in both the developed and developing worlds). Reforms throughout the continent increasingly lead to further waves of reforms. Higher education as a whole has already changed substantially in most European economies, and this trend is expected to continue. Perhaps the least susceptible to fundamental changes in the next decades will be the traditional research university, which is seen as crucial for the economic prosperity of regions and nations. Different directions of academic restructuring in different countries and within particular national systems add to the complexity of the picture which certainly leads to a more stressful work environment than three decades ago or more. Academics, the core of the academic enterprise, are working in turbulent times. Universities and other higher education institutions have been changing more rapidly than ever before in the last two centuries, together with their social and economic environments.

The changes in academic work are intensive today, but for the first time, they can be assessed in much more detail through large-scale European quantitative research which provides a refined empirical dimension to the growing academic profession research literature. There are ongoing changes in academic work, and there are attempts to measure them and draw valid conclusions from the empirical material available. But it may be that the sheer scale and speed of changes make it hard for the community of higher education researchers to interpret them. The gap between data and their interpretation may be greater in times of change like today than in times of relative stability.

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