Chapter 7
The Academic Profession in Germany

Ulrich Teichler, Ester Ava Höhle, and Anna Katharina Jacob

7.1 Introduction

The frequent use of the term 'academic profession' in international discourse to describe the people in charge of the core tasks of higher education – certainly teaching and research, but possibly others – suggests that the people in charge of these tasks have much in common across all the segments of higher education: positions and career stages, institutional types, disciplines, etc. The political will to create a system of tertiary education within Europe with high international convergence may lead to the notion that the activities and attitudes of academics of different European countries might become increasingly similar over the years. In contrast to the concept of growing isomorphism of organizations within a comparable institutional framework, it may be argued also that organizations such as universities show an entrenched resistance to such efforts of change. Based on national traditions and on specific contexts as prerequisites of political options, the said convergence may turn out to be merely claimed rather than to exist in reality. Following that assumption, the 'persistency of divergent models' (Teichler 1990a) of university systems would result in characteristic differences within the field of the academic profession that might exhibit a degree of stability over the years (see the overview in Enders 2006).

U. Teichler (✉)
International Centre for Higher Education Research (INCHER-Kassel),
University of Kassel, Kassel, Germany
e-mail: teichler@incher.uni-kassel.de

E.A. Höhle
University of Kassel, Kassel, Germany
e-mail: hoehle@incher.uni-kassel.de

A.K. Jacob
University of Duisburg-Essen, Essen, Germany
e-mail: Katharina.jacob@uni-due.de

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Bearing this in mind, one has to draw attention to the fact that it is not given that there should be a solitary and consistent concept of the academic profession within a country (in the context of this paper: Germany). Instead, the German language does not even offer a single term for the 'academic profession': 'Hochschullehrer' and 'wissenschaftliche Mitarbeiter' are the terms employed most frequently (i.e. terms suggesting a division based on rank). In addition to this division between senior and junior academics, professors at universities and at 'Fachhochschulen' have organized separate professional bodies. Moreover, the sector of public research institutes outside higher education, which is larger in Germany than in most other European countries, might be a source for an additional division of identity and practice. In contrast, academics are assumed widely to be one of the most internationalized professions; therefore, one might expect that they are similar in their views and activities across countries. The research project 'The Academic Profession in Europe: Responses to Societal Challenges' (EUROAC) provides the opportunity to compare 12 national questionnaire surveys of the academic profession undertaken from 2007 to 2010 and thereby to examine whether these assumptions are appropriate (Teichler and Höhle 2013). In this article we intend to identify the extent to which academics in Germany vary according to career status and institutional home in their views and activities and the extent to which academics in Germany are similar or different in their views and activities to their colleagues in other European countries.

7.2 The Conventional View and Perceived Recent Changes

In the first place, it is widely believed that university professors in Germany can be traditionally thought of as being strongly research-oriented. Second, they seem to be protected by a high degree of academic freedom to pursue knowledge for its own sake or to opt individually for other emphases in research and teaching. Third, professors in Germany traditionally are relatively powerful in the internal decision-making processes within universities. Fourth, they tend to be relatively well-supported as chair-holders with personnel and material resources (see Teichler and Bracht 2006).

With respect to academic careers, research on higher education in Germany as well as on the situation of junior academics point to three traditional characteristics. First, the existence of a comparatively large number of relatively young junior academics: Universities in Germany employ large numbers of graduates soon after graduation – short-term and often part-time to conduct research and concurrently work on their doctoral dissertation; more than half of doctoral candidates are employees at universities – either paid through university positions, with the help of research grants or scholarships. Second, a long period of high selectivity and dependence: Junior academics are expected to survive a long period of dependence and social uncertainty before becoming independent and socially secure scholars (Höhle 2016). Third, late formal qualification for the professoriate: The Habilitation, an academic qualification based on several years of academic work beyond the doctorate, is in Germany and some other European countries the traditional entry qualification for the university professoriate.

It is certainly indicative of the status gap between professors and junior academics that the German terminology on higher education does not provide any equivalent term to describe the 'academic profession'. Rather, there are distinct terms for senior academics – 'Hochschullehrer/innen' – and junior academics – 'wissenschaftliche Mitarbeiter/innen'. Only recently, the 'Hochschulverband', the major association of university professors, began accepting members in ranks lower than those corresponding to an associate professor in U.S. terms, namely 'Juniorprofessors' (a new category introduced in 2004). Moreover, professors at other institutions of higher education are excluded and are still members of a different association.

In describing the German system of higher education (cf. the overviews in Teichler 1990b, 2005; Kehm 1999, 2006; KMK 2003), there is a tendency to refer to the 'idea' of the university put forward by Wilhelm von Humboldt at the beginning of the nineteenth century. First, the 'unity of teaching and research' is most frequently cited because it has spread throughout the world and, accordingly, contributed to the belief that professors at 'real universities' are in charge of both teaching and research and that this link has a 'cross-fertilization' effect both on the quality of teaching and research. Second, 'solitude and freedom' is reflected in the widespread claim that academic freedom in the pursuit of knowledge is the best way of guaranteeing high quality academic work and, possibly, of ultimately contributing to the social relevance of research and teaching. Third, the concept of a 'community of teachers and learners' has achieved less resonance world-wide and has undergone a broad range of re-interpretations, both in Germany and in other countries.

At the beginning of the twenty-first century, the nineteenth century concepts of the university impact German higher education in various general respects, and the conditions of the academic profession in particular; and this impact may continue into the future. In other respects, we note major changes. Thus, we often observe a debate in Germany about whether Humboldt is 'dead' or still 'alive'.

As regards governance and steering (see the overview in Teichler 2011; cf. also Kehm and Lanzendorf 2006), first, government tends to be viewed in Germany as providing the major resources for higher education. Thus, it does not come as a surprise that most institutions of higher education even today are public institutions or, even if they are transformed into foundations, have a quasi-public character. Professors, as a rule, are civil servants, even if their university is formally a foundation. It should be noted, however, that most junior academic staff in public higher education institutions are regular employees (i.e. similar to employees in the private sector), and the majority of them do not have a permanent contract.

Second, government has a mixed function vis-à-vis the universities. On the one hand, it is the 'guardian angel' of academic freedom. After World War II, the freedom of research for university professors even was embedded into the constitution of the Federal Republic of Germany. On the other hand, government has strong mechanisms of control over higher education. These were most pronounced in the administration of resources, the rules of access and admission and the appointment of professors. Until about 2000, higher education institutions in most German Länder (federal states) had to present the government with a list of the three possible

candidates for a professorship. The government in charge was free to appoint the first, second or third candidate, or even to send the list back to the university for reconsideration. Even after the right to choose one of the three candidates recommended by the department and the senate was conferred on the university president, government still had to confirm the final candidate in order to appoint him or her as a civil servant, which could be refused. In contrast, the employment of individual members of junior academic staff who, as a rule, are not 'civil servants' is, traditionally, completely at the discretion of the individual higher education institution, albeit highly regulated.

Third, a close link is clearly defined between research and teaching for university professors in Germany. Almost all of them have an identical teaching load of 8–9 h per week when classes are in session, and the university is obliged to provide some basic funding for research. Junior staff paid by the university have a smaller teaching load in order to have time for the research needed to prepare for a senior academic career; moreover, many junior academics are paid through research grants and are only required to conduct research. Some academics employed by universities have a larger teaching load, if a close link of teaching with research is not considered essential, e.g. teaching for languages. Professors at Fachhochschulen (translated as 'universities of applied sciences'), established in the 1970s as a response to the growth of student enrolment, have a teaching load which is more than twice that of university professors. They may do research voluntarily and some of them might be granted a reduction in their teaching load for research purposes. Finally, many public research institutes in Germany are organized as a separate sector, although researchers from the institutes might have arrangements with universities to teach part-time.

Fourth, there is a tradition in Germany of mandatory career mobility, known as 'Hausberufungsverbot'. Universities recruit professors from outside the institution. Also, there is no internal promotion of professors from the lower to the upper professorial rank. Only if a professor from the lower rank receives an offer of a higher-ranking professorship at another university, his or her university might make a counter-offer that may eventually lead to internal promotion.

Major changes have taken place in German higher education in the 1990s and the first decade of the twenty-first century, either directly focused on the academic profession or primarily aimed at other areas which also have a strong impact on the academic profession. Analyses of the academic profession in Germany tend to identify three major areas of change in recent decades (see Teichler 2011; cf. also Enders 2001, 2004; Janson et al. 2007; Teichler 2007; Jacob 2011).

First, we note substantial changes in the 'power' of the academic profession within German higher education. Until the 1960s, universities were characterized by the strong influence of both professors and the government on decision-making, while university leadership was habitually weak. In the 1970s and the 1980s, a participatory model prevailed in academic self-regulation, with around half the committee positions being filled by junior academic staff, administrative and technical staff as well as students; concurrently, the power of government and university leadership grew to some extent. Since the late 1990s, German higher education followed

the trend, common to other countries, towards the 'managerial university', with an increasingly powerful university leadership (and, in some cases, departmental leadership) and towards the 'evaluative university' with a substantial rise in the assessment of activities in teaching and research. This made possible both greater self-reflection within the profession and the external control of academics. The details of the changes in governance and management of higher education cannot be described here because of the diversity and complexity of the arrangements. The 16 Länder of the Federal Republic of Germany are predominantly in charge of higher education legislation as well as the supervision and funding of individual institutions of higher education, while the national (Federal) level has supplementary functions of coordination and funding.

Obviously, German higher education has moved somewhat cautiously, with the 'evaluative' approach and the 'managerial university' appearing at a comparatively late stage. Most experts suggest that a combination of factors might explain this. After the mixed results of the move towards the relatively radical model of the 'participatory university' around 1970, there was no inclination to be in the vanguard of another administrative experiment. 'Organisational quietness' (Organisationsruhe) became a slogan in the 1980s. Moreover, considerable energy was absorbed in coping with a substantial increase in student numbers as a consequence of a temporary demographic spike amidst moderate resource growth. This conjuncture was compounded by the unification of Germany after the collapse of the Eastern European regimes, keeping all German higher education experts and key actors busy implementing a new integrated system predominantly following the model prevailing in the West. Obviously, 'managerialism' was viewed with mixed feelings, so that the actual implementation of the new managerial system might have had a less profound impact on higher education in Germany than in various other European countries.

Second, the employment and work situation of junior academic staff at German universities, for a long time having been the subject of heated debates and repeated reforms, became a crucial area of reform (see BMBF 2008; Burkhardt 2008; Kreckel 2008; see also Enders and de Weert 2004). Many observers describe the traditional relationship between junior staff and professors as creating a sense of dependency and subordination to the powerful Ordinarius. Doctoral candidates were supervised by individual professors, while the majority of them were employed either in a university post or with the support of research funding. Mid-level staff with a doctoral degree often clearly felt subordinated to professors, while their title and official functions changed from 'assistant' to 'assistant professor' and back again to 'assistant'. The spread of doctoral programmes as well as the introduction of a 'junior professor' position, together with a relativation of the Habilitation as typical entry qualification into the professoriate, are viewed widely as major steps towards strengthening the position of junior academic staff (Höhle 2015).

Third, the daily work of academics has become more regulated in recent years. Various mechanisms of evaluation have spread since the mid-1990s (Schade 2004; see also Schwarz and Westerheijden 2004). More recently, the remuneration system was modified to include a stronger emphasis on incentives. In the past, salary scales

dominated the scene with financial increments linked to age or years of service, so that full-time junior academic staff earned about 50–60 % of what university professors earned, and lower ranking university professors as well as professors at universities of applied sciences earned about 80–85 %. Only full university professors could negotiate higher salaries if they were offered a professorship from another university or an equivalent job offer from outside. Now, professors no longer receive increments based on their years of service; rather, their achievements are assessed every 5 years, and their salary can be raised according such assessments as well as for taking over specific functions and, as before, if they have been offered an attractive external position. However, this new system was only in force for a minority of professors surveyed in 2007, because those already employed prior to the implementation of the new remuneration system could remain in the old system if they wished and, in the event, the majority did not transfer.

It should be added that universities of applied sciences do not award doctoral degrees (although this issue is being discussed) and are not in charge of training junior academic personnel. Most academics employed there are professors.

7.3 A New Information Base: The Survey Undertaken in 2007

This section seeks to examine the extent to which the academic profession in Germany actually resembles the traditional image and the degree to which higher education reforms have created a new situation for the academic profession. To this end, the subsequent analysis will concentrate on the findings of a survey of the German academic profession undertaken in 2007 (see Jacob and Teichler 2011).

The questionnaire was sent from January to July 2007 to more than 5700 regularly employed, university-trained people, active in departments or special units in charge of teaching and/or research within universities, public research institutes, fine arts colleges and Fachhochschulen (FH) in Germany. Altogether, 1668 people responded. By excluding people not reached or informing us that they do not belong to the target group of the survey, we calculate a response rate of 32 % (i.e. an above average rate compared to the countries included in the following analysis). The analysis is based on the responses from 324 university professors (including those from colleges of fine arts), 695 other academic staff at universities (junior staff, mature staff not promoted to professorial positions) and 215 academics from FHs. The academics employed at German public research institutes as well as the junior staff at FHs are not included in the following analysis – the former because they cannot be compared with those of other countries in the framework of this analysis, and the latter, because they are a small and quite heterogeneous category.

The survey initially was undertaken as part of the comparative survey 'The Changing Academic Profession' (CAP) which was initiated in 2004. The CAP survey comprised 18 countries – seven of which in Europe – as well as the Special

Administrative Region of Hong Kong and has yielded altogether almost 26,000 responses (mostly in 2007, in a few cases in 2008 and in the case of the Netherlands in 2010). In 2009, some European scholars initiated the project entitled 'The Academic Profession in Europe – Responses from Societal Challenges' (EUROAC). A further six European countries employed a slightly modified version of the CAP questionnaire and undertook their own survey in 2010. While data for the different disciplines in one of the countries remains incomplete, five further countries could be included, and thus altogether providing 12 European countries in the final EUROAC data, set based on more than 16,000 responses. The 12 countries covered are Finland, Germany, Italy, Norway, Portugal and the United Kingdom surveyed in 2007 and Austria, Croatia, Ireland, the Netherlands, Poland and Switzerland surveyed in 2010 (see Teichler and Höhle 2013).

The data presented in the subsequent analysis are not identical with those from the initial comparative data set. Rather, they are weighted according to academic rank, current academic discipline, institutional type, and gender. This weighting has been undertaken in order to counterbalance under and over-representations of subgroups as a consequence of the lack of representativeness in the sampling and/or the responses received. It should be noted, though that some publications prior to this essay present slightly different data. This is because the 2011 data set presented here has undergone various stages of weighting and data cleaning.

In the following analysis, the views and activities of the academic profession in Germany are presented in comparison with those of their colleagues in other European countries. In most cases, they will be compared with the average (country mean) of all 12 European countries (or fewer if data are not available for all countries); only in a few cases will reference be made to other individual European countries.

In order to measure change over time, the findings for the German academic profession are occasionally compared to those of a survey undertaken in 1992. The Carnegie survey had been part of a comparative project that was initiated in the early 1990s by the Carnegie Foundation for the Advancement of Teaching (see Boyer et al. 1994; Altbach 1996; Teichler 1996). While it comprised more than a dozen countries, only Germany, the Netherlands and the United Kingdom are comprised both in the Carnegie study and in the EUROAC 12-country European study. It was only occasionally possible to make comparisons over time, from the 1990s to the recent past, as only some parts of the questions were identical or similar in both questionnaires. The questionnaire was revised substantially over time as the scholars involved became convinced that many issues of the academic profession have undergone change (see Kogan and Teichler 2007; Locke and Teichler 2007) and that some enhancements to the quality of the questionnaire were desirable.

The German 1992 survey (see Enders and Teichler 1995a, b) elicited about 2800 responses, but achieved a response rate of only 27 %. The increase in the response rate from 1992 to 2007 is remarkable, given the growth in survey fatigue in many countries. In contrast to 2007, East German higher education institutions had been excluded from the 1992 survey, because the adaptation of Eastern German higher

education to the Western model had only just begun at the time the survey was conducted.

It should be mentioned that both German surveys were funded by the German Ministry of Education and Research (BMBF). The EUROAC study has been supported by the European Science Foundation (ESF) as well as national research promotion agencies, such as the Deutsche Forschungsgemeinschaft (DFG) in the case of the German participation. In addition to the authors of this article, Oliver Bracht, Florian Löwenstein and René Kooij were involved in the data analysis of the German 2007 survey (cf. the already available publication on Germany in Teichler and Bracht 2006; Teichler 2007, 2008; Jacob and Teichler 2009, 2011; Teichler 2011); moreover, Jacob (2011) investigated the employment relations at universities in Germany and Norway by also using qualitative data from interviews with academics in the two countries. Höhle was active in multi-country comparative analysis (cf. Höhle 2017).

7.4 Socio-biographic Characteristics

The average age of German university professors is 53 according to the recent survey. This is 1 year older than that of professors surveyed in the early 1990s, and it is close to the European average of 52 years. However, the proportion of professors in Germany under 40 – only 4 % – is among the lowest in the 12 European countries surveyed (11 % on average). Professors at German Fachhochschulen are on average 1 year younger than university professors; across Europe, professors at other institutions of higher education as well are 1 year younger than their colleagues at universities.

Junior academics at German universities are 37 years old on average according to the recent survey; this is 2 years older than in the early 1990s. One quarter of the respondents of this category in the recent survey is under 30, half between 30 and 40, and one quarter over 40. On average across Europe, junior academics are 39 years old. Various factors come into play: Germany belongs to those countries where many academics are employed by their university already at the doctoral stage. Moreover, many junior academics in Germany are employed short-term for contract research; thus, the average chance to 'survive' for a long time in the higher education system without having been appointed to a professorial position is certainly below the European average.

Only 18 % of the university professors in Germany are women according to the recent survey. This is one of the lowest rates in the European countries surveyed: the average rate across countries is 26 %. Similarly, the proportion of female professors at German universities in the applied sciences is 20 % – clearly lower than the European average of 34 %.

One has to bear in mind, though, that the share of women among academics at German universities has increased relatively quickly from a low level. In the early 1990s, women comprised only 6 % of university professors and 22 % of junior

academics. By 2007, 18 % of professors and 38 % of junior staff were women. This shows that between these two points women had almost the same chance as men to reach a position as professor and that the past trend does not indicate any 'glass ceiling' in the growth of women in academia. In extrapolating this trend, we can predict that women will comprise about one third or slightly more in the next generation of university professors in Germany.

More than four fifths of the academics surveyed in Germany are married or live in a permanent partnership (slightly more than in the early 1990s) – more so among professors than among junior academics at universities. Female professors at universities or universities of applied sciences are much more likely to be single with no children than their male colleagues. These findings confirm the general view that it is easier to combine family and academic profession for male persons with a higher income and a partner without professional engagement – this is typical of findings in German society as a whole and not just for academics.

This finding may be contrasted with the situation in Scandinavia (e.g. Norway), where affirmative action on behalf of the equal status of women and men has been taken in the past. While it is still the case that the share of women declines with increasing hierarchical position, this share is considerably higher than in Germany (reaching exactly 50 % for junior staff at universities), and professional engagement of the partner is considered the rule even for members of the top ranks. During the course of 39 interviews held both in Germany and in Norway, it was unanimously stated that the chances of combining career and family – not limited to, but including academics – are more favourable in Scandinavia (see Jacob 2011).

7.5 Career Path

A doctoral degree is more or less a 'must' for an academic career in many economically advanced countries. Actually, 93 % of university professors in Germany hold a doctoral degree, as compared to an average of slightly over 80 % in the 12 European countries surveyed. On average, current university professors in Germany have obtained their doctoral degree at the age of 30; this is among the lowest in Europe, where on average a doctorate is awarded at age 33 years, actually ranging from 29 to 39 years.

In Germany, a post-doctoral degree – Habilitation – is viewed traditionally as the normal entry qualification to the professoriate. A recent survey in Germany found that 77 % of university professors hold such a degree; only a few other European countries have widespread habilitation adoption: Austria (74 %), Switzerland (66 %) and Poland (52 %).

In contrast, the expected entry qualification to the professoriate at a German Fachhochschule include a doctorate and 5 years of post-doctoral professional experience, at least 3 years of which should be outside academia. Actually, 86 % of professors of this second type of higher education in Germany hold a doctoral

degree (this is among the highest in Europe and far above the average), and 9 % have completed a Habilitation.

There is a tradition of enforced inter-institutional mobility of academics in German-speaking countries. As a matter of principle, academics will not be appointed to a professor position at the institution that provided their immediate prior employment ('Hausberufungsverbot'). One could assume, therefore, that inter-institutional mobility of university professors is quite high in Germany. Actually, they report that they have been employed altogether at an average of 4.1 institutions since their first degree was awarded, with 0.8 of them outside academia. This is in-line with the European average.

Professors at FHs in Germany have to be mobile as well, because they are expected to be experienced in the professional area in which their students are likely to be employed. However, being employed by a total of 3.6 institutions (on average) they are in reality somewhat less mobile than both university professors and senior academics of this institutional type across European countries (4.4).

Germany belongs to those countries in Europe where only a small proportion of those taking their first academic steps eventually end up in a professorial position. Statistics show that only about 15 % of academics employed at universities are in a senior (as a rule professorial) position. By comparison: About 60 % of academics employed at institutions of higher education with at least bachelor-level programmes in the United States of America are full and associate professors. A recent study estimated that about 10 % of graduates from German institutions of higher education are eventually awarded a doctoral degree and that 8 % of those awarded a doctoral degree eventually become professor at a university or a university of applied sciences. In contrast, selectivity in the U.S. is higher between the first degree and the academic doctorate (only 4–5 % are awarded a PhD), while selectivity between the PhD and the professoriate is lower (about 20 % of PhD holders become associate and full professors) (see Janson et al. 2007).

Norway has still yet another career system. Selection also occurs quite early. However, while the German system may be described as 'competition-based' – positions (especially of the top ranks) are attributed to external applicants only after going through the typical, tournament-like situation of being chosen by a jury and appointed by official authorities – in Norway it is 'competence-based': an expert jury assesses additional qualifications (especially in research), which, if evaluated positively, can mean promotion to the next position in the hierarchy ('kompetanseopprykk'), including professorships and chairs, even within the same institution (cf. Jacob 2011).

7.6 Employment Conditions

The salary structure at German public institutions of higher education, which comprise about 97 % of the system, is relatively homogeneous across disciplines. However, there are differences across disciplines for professors and to some extent

other academic staff, with opportunities for earning moderate supplementary income from their higher education institution and substantial levels of side income (cf. Teichler 2008). For other academic staff at universities, the difference between those in full-time and those in part-time positions plays an important role.

The average gross annual salary (including supplements) of university professors in Germany in 2007 was about €72,000 (€79,000 for the higher-ranking professors and €61,000 for the lower-ranking professors). Senior academics at universities of applied sciences in Germany earn slightly more than €57,000. Junior academics at universities with a doctoral degree earn about €40,000 on average (including part-timers) and €48,000 for full-time work; while those without a doctoral degree currently earn about €30,000 (including part-timers) and €37,000 for full-time work.

Weighted using consumer price levels, the income of university professors in Germany is above the average of the 12 European countries included in the above named survey. The weighted income is substantially lower than in Switzerland and somewhat lower than in Norway; it is more or less equal to that in Austria, Finland and the Netherlands, higher than in Italy, Portugal and the United Kingdom and substantially higher than in Poland.

In counting all employed persons (including those employed half-time), we note that junior academics at universities in Germany earn on average half of what a professor earns. This difference is less pronounced than in Switzerland (about two-fifths) and about the same as in Austria, but higher than in the other countries surveyed: In half of them, junior academics earn on average about two-thirds as much as senior academics.

As a rule, professors in Germany are employed permanently (mostly as civil servants) and full-time. Actually, only 4 % of the professors at universities and 2 % at FHs are fixed-term employed, and 1 % and 6 % respectively are not full-time employed. Such a stable employment situation has been considered typical for professors in Europe for a long time, but some countries have revised the employment conditions in recent years; according to the recent study, more than one quarter of university professors are fix-term employed in Finland, Poland and Switzerland and part-time employed in the Netherlands.

Of the junior academics at German universities, only 65 % are employed full-time and only 20 % are employed permanently. In those two respects, junior staff find their employment situation to be less satisfactory in Germany than in most other European countries.

Again, one has to bear in mind that the German universities offer many positions for young staff to explore themselves on the first step within a highly selective career. The comparison between Germany and Norway by Jacob (2011) shows that confidence in life-planning is substantially lower among German young scholars than among their Norwegian colleagues. This is because the ‘bottle-neck’ for achieving a higher position or for continued employment is located at a later career stages in Germany than in Norway, where selection is most evident when applying for a doctoral fellowship. This factor – in conjunction with the overall favourable economic situation – certainly contributes to the fact that those who have succeeded

to get 'their foot' into Norwegian academe feel less insecure about their professional future.

It is not true, however, as often claimed, that until reaching a position as a professor, junior academics in Germany are in an exceptionally precarious employment situation:

- Certainly, only 1 % of junior academics without a doctoral title employed during the first 6 years after graduation are permanently employed, but – with many fellow-colleagues having to leave academia – 55 % of junior staff with a doctoral degree who have graduated more than 12 years ago are permanently employed.
- Only 46 % of the former category are employed full-time, but this rises to 69 % for the latter category.

It has been frequently argued that fixed-term contracts for junior academics have increased in recent decades in Germany as a consequence of a more incentive-based and sanction-based personnel policy in academia and as a consequence of a growing pressure on universities to raise external research grants. However, the two surveys compared here, undertaken in early 1992 and recently, suggest that the rate of fixed-term employment has remained more or less constant.

7.7 Working Time

The questionnaire surveys cited above asked academics to estimate the number of hours they spend on various functions each week, both when classes are in session and when classes are not in session. These estimates are helpful to establish the extent to which academics – in their view – work beyond usual office hours, as well as to examine how they allocate their working time to various tasks and functions. The following data are estimates for the whole year based on the assumption that classes are in session for six out of every ten working weeks. Moreover, the analysis comprises only those academics employed full-time.

University professors in Germany work 52 h per week on average; this is the highest figure in Europe (alongside Switzerland) while the average across Europe is 47 h per week. Full-time junior academic staff in Germany work 42 h; this corresponds to the European average. Finally, senior academics at universities of applied sciences also work 42 h – this is 2 h more than senior academics at other higher education institutions across the various European countries. This habit and ethos of working long hours, as Jacob (2011) has shown in her qualitative inquiries, are deeply rooted within the self-perceived professional image of German academics. Independent of whether this is seen as positive (taking additional working time as a source of scientific productivity) or negative (as a threat to personal work-life-balance), the German interviewees unanimously reported an implicit expectation of working overtime within academe. This is a very different reality to the findings in Norway, where meetings tend to be scheduled to prevent undue professional strain.

University professors in Germany spend 28 % of their working time on teaching, 38 % on research and 34 % on other tasks and functions (e.g. service and administration). This allocation of time is close to the average across the European countries surveyed. Thus, over the course of a year, they spend about one and half times as much time on research as on teaching – only marginally more when classes are in session and substantially more when classes are not in session. Across Europe, time spent on research varies from one extreme, where almost twice as much as time is spent on research as on teaching, to the other extreme, where time is more or less equally divided between research and teaching. On the one hand, university professors in Switzerland, Austria and Ireland lean more strongly towards research in their time budgeting; on the other hand, those in Portugal, United Kingdom, Finland and Norway do not spend substantially less time on teaching than on research.

It is interesting to note how the proportions of the time spent by university professors in Germany have changed over time:

- The proportion of time spent on research has hardly changed from 1992 (39 %) to 2007 (38 %), and
- the share of time devoted to teaching and related activities has declined from 33 to 28 %, while
- time absorbed by services, administration and other tasks has increased from 28 to 34 %.

The study undertaken in the early 1990s found that university professors in Germany spent two and a half hours on teaching-related activities (preparation of classes, examinations, guidance, curriculum development, etc.) per teaching hour. As the teaching load has not declined during this period, teaching-related activities per teaching hour seem to have declined to 2 h. As the student-teacher-ratio has increased during this period and university professors in Germany tend to spend a substantial time on examinations outside the classroom arrangements, time for preparation, guidance and curriculum development certainly has declined even more than one fifth.

Junior academics at German universities spend 51 % of their annual working time on research, 21 % on teaching and 28 % on other tasks. Germany belongs to those countries in Europe where junior academics on average have fewer teaching hours than university professors. The distribution of time across these three functions, however, is close to the average of the 12 countries surveyed.

Senior academics at German Fachhochschulen spend 41 % of their working time on teaching, 20 % on research and 38 % on other tasks. From 1992, the proportion of time spent on teaching has declined by 7 %, and the share of time spent on research remained the same, while the time devoted to other tasks increased by 7 %. In absolute numbers of hours, FH professors spend only about one-sixth more time on teaching than university professors although their teaching load is twice as high. Obviously, FH professors altogether spend less time on teaching-related activities outside classes than university professors do, and they spend less than half as much time on teaching-related activities per classroom hour.

7.8 Teaching and Research

Universities are understood in Germany – as well as across Europe – to be institutions more or less equally in charge of both teaching and research. It is widely assumed, however, that the German university professor has a clear preponderance for research and often considers teaching as an additional task of knowledge transmission. The survey findings do not challenge this view completely, but certainly call for a modification of this stereotype.

Some 83 % of university professors in Germany state that they are interested in both research and teaching. Only 12 % point to a clear preference for research and 5 % for teaching. Among those expressing interest in both, however, 63 % lean towards research and only 20 % towards teaching. Thus, altogether 75 % of professors at German universities are predominantly interested in research and 25 % in teaching. This hardly differs from the European average across countries, where 73 % are predominantly interested in research and 27 % in teaching. There is an increase, however, among university professors' preponderance for research over time: this share of German respondents grew from 65 % in 1992 to 75 % in 2007.

The preferences for research versus teaching among junior academics at universities in Germany do not differ substantially from those of university professors. More of the former, however, show a clear preference for research instead of being in favour of both teaching and research (those leaning towards research).

As one might expect, senior academics at German universities of applied sciences place more emphasis on teaching than university professors. Only 1 % expresses a clear preference for research and 22 % lean towards research. In contrast, 42 % express a clear preference for teaching and another 35 % lean towards teaching. One could have expected a shift towards research from 1992 to 2007, but this does not hold true. On the contrary, the proportion of FH professors predominantly interested in teaching rose over time (from 29 to 42 %).

Resources for academic work (classrooms, technology for teaching, laboratories, research equipment, computer facilities, library facilities, office space and telecommunications) are on average rated as good by slightly more than half (54 %) of the professors at German universities. This rating is slightly worse than the average across European countries: clearly worse than in Switzerland (78 %), Finland (69 %) and Austria (63 %), but the same as in Portugal and more positive, for example, than in Italy and the United Kingdom (44 % each).

It is interesting to note that ratings of resources by university professors in Germany are similar in 2007 to those 15 years before. In response to a question on how the resources have developed in the last 5 years, however, the majority of university professors – in Germany as well as in many other countries – note a deterioration. Obviously, responses to such retrospective questions are influenced by nostalgia.

Junior academics at German universities and senior academics at German FHs rate the resources slightly more positively than university professors (57 % each).

They might have somewhat lower expectations, but certainly they do not feel disadvantaged in this respect.

When asked to characterize their teaching approaches, three quarters of university professors in Germany state that they emphasize practically oriented knowledge and skills. The respective average across European countries is 60 %. Of course, a practice-oriented approach to teaching is reported more frequently by FH professors in Germany (93 % as compared to 77 % on average across Europe). Values and ethics are not incorporated into the course content of as many university professors in Germany – in this respect they take a similar approach (57 %) to many other European academics (54 % on average across Europe).

Classroom lecturing is assumed to be the most frequent teaching method. But other teaching methods are often viewed as highly valuable ways of motivating the students and enhancing their competences. To this end, the academics participating in the above named study were asked how frequently they employ seven other methods of teaching and instruction (individualised instruction, learning in projects, practice instruction or laboratory work, ICT-based learning or computer-assisted learning, distance education, face-to-face interaction with students outside class and electronic communication – e-mail – with students). Professors at German universities on average only employ 2.8 of these teaching methods. This is second lowest among the European countries (2.3 in Austria) and clearly below the average across European countries (4.0). Junior academics have a smaller repertoire of teaching methods in the countries surveyed than senior academics: Again, German junior academics report clearly fewer methods (2.3) than the average across Europe (3.4). Senior academics at FHs employ a broader range of teaching methods than academics at universities, but again German respondents (3.2) are clearly below the average across European countries (4.5).

Asked about the functions of research and scholarship, most academics in Germany and other European countries highlight that original research should be generated and disseminated. However, only slightly more than 60 % of university professors in Germany state that synthesising findings, applying knowledge and the societal relevance of research should be emphasised as well. These scores do not differ substantially from the average across European countries. Comparing senior academics at German universities of applied sciences with university professors, the former were more often found to place importance on synthesizing findings (72 % as compared to 61 %) and substantially more often found to place importance on the application of research findings (87 % as compared to 62 %).

Professors at German universities are quite active in writing and editing scholarly texts. Within 3 years they have

- authored or co-authored an average of 1.3 books,
- edited or co-edited 1.7 books,
- written 5.9 articles in books or journals,
- written 2.7 research reports,
- presented 6.1 papers at conferences, and
- written 4.2 professional articles for newspaper and magazines.

In merging these various types of publication activities into a single publication index, we note that professors at German universities (Index score 56) and their colleagues in Switzerland (55) publish more than their peers in other European countries: mostly around 40, but less in the United Kingdom (29), Norway (28) and by far the fewest in Poland (14).

The respective index score for junior academics at German universities is substantially lower, i.e. 20. This corresponds to the average across countries (19). The index score for senior academics at German FHs is about the same (19), and this corresponds as well to the average across European countries surveyed.

7.9 Internationality

The recent study on the academic profession in Europe has addressed three themes in the domain of internationality of higher education: border-crossing mobility, visible international activities and the use of foreign language in international activities. In these three areas, German academics in many respects seem to be less international than the average for European countries involved in this study; in a smaller number of areas, however, they are close the European average.

First, 21 % of the professors at German universities are migrants or have been internationally mobile (in equal proportions) during the course of study or work on their dissertation. The respective rate is 30 % on average for the 12 European countries surveyed. Only 1 % of university professors in Germany – compared to 7 % on average across European countries – have undertaken their doctoral study abroad. Among professors at German universities of applied sciences, 18 % are migrants or have been mobile. Again, this is clearly below the average of 28 % across European countries.

Second, asked whether they are internationally active in recent years, professors at German universities respond affirmatively to an average of 4.3 aspects out of a total of eight teaching and research aspects (international content of teaching, teaching many international graduate students, teaching abroad, international scope of research, international research collaboration, raising of international research funds, joint publications with authors abroad, publishing abroad). This corresponds to the European average. Junior academics at German universities are less internationally active than their European peers on average across countries (2.6 as compared to 3.2). The same holds true for professors at German FHs (2.2 as compared to 2.8).

Third, teaching and communicating in research activities in a foreign language has substantially spread in recent years. Some 37 % of the professors at German universities report that they teach at least one course in a foreign language. This corresponds to the average across European countries (38 %). On average, fewer junior academics at German universities teach in a foreign language (20 %) than their colleagues in the European countries surveyed (26 %). This is true as well for professors at German FHs (24 % as compared to 32 %).

In Germany, 54 % of university professors report that they use a language other than their mother tongue in their research activities, as compared 72 % of universities across European countries where English is not the dominant language. The corresponding figures are 52 % (as compared to 63 %) for junior academics at universities and 28 % (as compared to 42 %) for senior academics at other institutions of higher education.

Professors at German universities who have published during the previous 3 years report that 56 % of their publications are in a foreign language – fewer than the respective proportion of university professors on average for European countries where English is not the dominant language (63 %). Junior academics, however, publish about as much as the European average in a foreign language (60 % as compared to 62 %). Professors at German FHs publishing in recent years are substantially less likely to do so in a foreign language (25 % of their publications) than their colleagues on average across the European countries (45 %).

It would be questionable, though, to interpret these findings as a clear indication that Germany is lagging behind in the internationalisation trend in higher education. By and large, we note that academics in small European countries make more of an attempt to study abroad, to communicate with scholars from other countries and to employ a foreign language – notably English as the lingua franca.

7.10 Steering

The academic profession in Germany has experienced increasing efforts to steer academic work – with the help of regulations, evaluations, incentives and sanctions, as well as through growing managerial power in general. This occurred at least a decade later than in some other European countries, e.g. the Netherlands and the United Kingdom. It was only around the mid-1990s when momentum starting building behind such efforts in German higher education. It could be concluded that changes of this sort have not gone as far as they have in some other European countries. It may also be that academics in Germany are still tentatively reacting to these changes. Finally, one could assume that German higher education has learned from the trial and error in 'managerialism' in other countries and has moved toward a more balanced solution from the outset.

Teaching and learning is most clearly regulated in Germany by defining the weekly teaching load. But other regulations and institutional expectations as regards teaching are also perceived to exist:

- Funding of departments is substantially based on the number of students, according to the stated opinion of 50 % of the professors at German universities as compared to 53 % on average for European countries (42 % as compared to 50 % according to junior staff and 65 % as compared to 59 % at other institutions of higher education)

- Academics are encouraged to improve instructional skills in response to teaching evaluations, according to 37 % of university professors in Germany as compared to 39 % across Europe; the respective figures are 31 % and 40 % for junior staff as well as 48 % and 41 % for senior academics at other higher education institutions.
- Departmental funding is substantially based on the number of graduates according to 33 % of university professors in Germany as compared to 35 % across Europe. The respective figures are 21 % and 33 % for junior academics as well as 41 % and 35 % for senior academics at other institutions of higher education.
- Teaching quality is taken into consideration in personnel decisions according to 28 % of university professors in Germany as compared to 34 % across Europe. The respective figures are 21 % and 20 % for junior academics as well as 51 % and 38 % for senior academics at other higher education institutions.

In sum, we note that professors at German Fachhochschulen consider that their teaching tasks are more strongly shaped by regulations and institutional expectations than their peers in other European countries. Professors at German universities, though, consider such regulations and expectations less influential than FH professors; as such, their views are close to the average for university professors across Europe. In contrast, junior academics at German universities clearly see less of a role for such regulations and expectations when compared to professors and also when compared to the average for junior academics across Europe.

With regard to research, academics have been asked whether certain expectations could have undesirable side effects:

- 48 % of university professors in Germany are convinced that high expectations of increased research productivity are a threat to the quality of research – clearly fewer than on average across Europe (63 %). The respective figures are higher among junior academics: 53 % in Germany as compared to 76 % across Europe, but lower among senior academics at other institutions of higher education: 44 % in Germany as compared to 60 % in the various European countries.
- 58 % (i.e. clearly more) professors at German universities believe that high expectations to produce useful results are a threat to the quality of research – exactly as many as across Europe. The respective figures are 54 % and 56 % for junior academics. Finally, only 35 % of professors at German universities of applied science see such a conflict, compared to 48 % for senior academics at other institutions across Europe – a finding reflecting the emphasis FHs have on applied research.

Thus, fewer academics in Germany across all three categories note a conflict between academic productivity and research quality, and fewer FH professors note a conflict between expectations of useful results and quality of research. In contrast, academics at German universities perceive a conflict between expectations of useful results and quality of research as often as their colleagues in other European countries.

Academics at German universities view the power of management at higher education institutions to decide on a multitude of aspects related to academic activities to be as pronounced as the average for the European countries surveyed. On average, across 11 aspects addressed in the questionnaire survey cited above (e.g. choosing new academics, promotion, determining budget priorities, evaluating teaching, setting internal research priorities, etc.), 46 % of professors and 51 % of junior staff at German universities feel that the executive powers within the university (presidents, deans, etc.) exert the strongest influence. These proportions are close to the average for European countries (48 % and 46 %, respectively) but clearly lower than in Austria and, in the case of professors, also somewhat lower than in the Netherlands.

The perspective of senior academics at German universities of applied sciences (53 %) is similar to those at universities, but this is clearly a lower level than the average across Europe at other institutions of higher education (61 %). On average across Europe, the management at other institutions of higher education regulates the academic life more strongly than the management at universities. In this respect, the FHs in Germany seem to be closer to the universities.

Two examples might be provided showing how the academics perceive the prevailing management styles at institutions of higher education:

- A top-down management style is reported by 43 % of university professors and 44 % of junior academics, but fewer FH professors in Germany (35 %). Across Europe, top-down management seems more widespread than in Germany as slightly more than half of the academics in all three categories respond affirmatively in this respect.
- Relative to those reporting top-down management, somewhat fewer academics in Germany are convinced that top-level administrators provide competent leadership. The respective proportions – 36 % among university professors, 30 % among junior academics at universities and 37 % among FH professors in Germany – are close to the average across Europe in all three categories.

As strong management does not automatically create constraints for the academic profession, the academics surveyed have been asked how influential they consider themselves in shaping key academic policies. The responses show that:

- Professors at German universities consider themselves quite influential: 63 % at faculty level (the second highest proportion in Europe and compared to an average of 35 % across the European countries surveyed) and 26 % at university level (compared to 15 %).
- Professors at German FHs consider themselves to be as influential at their institution as university professors (66 % and 28 % respectively), and they also rate their influence more highly than their colleagues across Europe (39 % and 24 % respectively).
- As one might expect, junior staff at university consider their influence to be marginal. The statements by German respondents – 9 % at faculty level and 4 % at university level – do not differ from the average across Europe (10 % and 4 % respectively).

In sum, to some extent Germany also seems to have developed a tendency for strong institutional management in higher education. However, German academics consider themselves to be exposed to a lesser extent to a top-down management style as well as to a conflict between the prevailing efficiency-oriented and relevance-oriented policies and academic quality, than academics across Europe. Additionally, they also consider their influence on academic policies to be stronger than their colleagues (on average) across European countries.

7.11 Satisfaction

Professional satisfaction can be expressed in various ways:

- About half (48 %) of professors at German universities characterize their job as a source of personal strain; this is more frequent than the average across Europe (41 %). In contrast, junior academics at German universities (36 %) and senior academics at German Fachhochschulen (34 %) consider their job a source of personal strain notably less often than university professors in Germany, and also slightly less often than their peers across Europe (41 % and 38 % respectively).
- 42 % of professors and 44 % of junior academics at German universities support the view 'This is a bad time for any young person to begin an academic career in my field', but only 22 % of senior academics at FHs in Germany hold such a view. In all cases, these proportions are about 5 % lower than the average across European countries.
- Only 17 % of professors and 19 % of junior academics at German universities react affirmatively to the statement 'If I was starting again, I would not become an academic'. Again, satisfaction is higher among academics at German FHs with only 7 % supporting such a view. The respective averages across Europe are 14 %, 19 % and 12 %.

Asked about their overall professional satisfaction, 71 % of university professors, 66 % of professors at universities of applied sciences and 55 % of junior academics at universities in Germany express a high degree of satisfaction; the average score on a five-point scale is 2.2, 2.3 and 2.5 respectively. All these figures are close to the average across the European countries surveyed (cf. Höhle and Teichler 2013).

It is interesting to note that German academics surveyed recently report higher levels of satisfaction than those surveyed in the 1990s (the average rose 0.2 points among professors both at universities and at universities of applied sciences). Junior academics at German universities had been the least satisfied across countries in the survey of the early 1990s. This has been interpreted as an indication that junior academics have felt a lack of recognition as productive scholars (Enders and Teichler 1995b). In the recent survey, however, junior academics increased their job satisfaction rating by 0.4 points, and they are now on par with the average of junior academics across European countries.

7.12 The Academic Profession in Germany – Lessons from Survey Research

There is a wealth of information on phenomena such as the academic profession, and this information tends to be condensed into conventional wisdom. The available literature provides us with certain characteristics of the academic profession in Germany. The results of questionnaire surveys help us to get a more valid picture, because representative surveys can overcome the sequences of anecdotes based on an incomplete knowledge of the whole spectrum of people under consideration. As such, questionnaire surveys might provide a better picture of the current views and activities of academics. Moreover, a comparative survey of the academic professions allows us to control whether often-claimed characteristics, many times based on implicit comparison, hold true explicitly as visible distinctions from other countries. We have to bear in mind, though, that survey questions might simplify issues; moreover, they are only able to present the views and notions of facts as reported by the academics themselves and thus might be subjectively biased. Altogether, however, we certainly can consider the academics' views and notions as a valuable source in this framework.

The previous survey on the academic profession in Germany, undertaken in the early 1990s, has been already successful, at the same time both reinforcing and challenging conventional assumptions on how academics in Germany think and act. German university professors have turned out to be hard-working and productive people. They are not for the most part completely geared to research, but most of them appreciate the linkage between teaching and research, even if the majority lean more strongly towards research. In turn, the pressure of student numbers has not forced them to concentrate most of their time on teaching and related activities; rather, time spent on research still exceeds time spent on teaching over the whole year. Junior academics in Germany have expressed similar views to senior academics regarding the functions of higher education and what constitutes a desirable academic, but they have clearly differed as far as employment conditions are concerned and to a certain extent as well as regards work tasks. Academics at German universities of applied sciences have to spend more time on teaching and, if they are active in research, they are expected to emphasize applied academic work. Last, but not least, the 1992 survey has shown that academics in Germany are not as highly satisfied with their professional situation as academics in some other countries. Notably, junior academics in Germany have been clearly less satisfied than senior academics, and also somewhat less satisfied than junior academics in other European countries surveyed.

The 2007 survey compared the situation of academics in 12 European countries. The analysis of the academic profession in Germany, as reflected in the survey, provides such a wealth of interesting findings that a brief summary is bound to selective. Some findings, though, are certainly worth highlighting.

The share of women among university professors was quite low in Germany in the early 1990s. However, the share of women among junior academics was three

times as large at that time – this then translated to a similar share among university professors 15 years later. We might assume that the share of women – less than one fifth in the most recent survey – is likely to reach a third in the next generation.

Compared to professors, the employment situation (job security, remuneration) of junior academics at German universities has not changed very much between those two surveys. Yet the climate of appreciation of junior academics might have changed: We note a clear increase in junior academics' overall job satisfaction (as compared to the moderate increase seen for professors at both universities and universities of applied sciences).

Academics in Germany have to change university when first promoted to professorships and again for any further promotion; professors at universities of applied sciences must have been professionally active outside academia. The survey, however, shows that inter-institutional mobility of German academics is no greater than the European average.

University professors in Germany spend much time on professional work and publish more than their colleagues in most other European countries. Most of them favour a close link between teaching and research, although the proportion of those tending to lean towards research has increased in recent years. They activities include only a relatively small range of teaching methods. Professors at German universities of applied sciences, in contrast to popular opinion, are currently even more strongly teaching-oriented than in the early 1990s.

Comparing the two surveys, professors both at universities and FHs in Germany now spend about the same amount of work time on research, more work time on other functions, and less work time on teaching. As the teaching load has hardly changed during this period and the student-teacher ratio has grown, obviously time spent on teaching-related activities, such as preparation and guidance, has become scarce.

Academics in Germany are less international than the average for academics across Europe, as judged by their mobility and migration, visible international activities and use of a foreign language. The conclusion here is not necessarily a lack of interest in the international dimension, but rather seems to be a normal perspective for a relatively large country.

Academics in Germany have noticed growing managerial power and an increase in regulations, incentives and sanctions. However, both, professors and junior staff in Germany continue to consider that their degree of influence on academic policies at their department and university is higher than their peers across Europe.

Academics have remained sceptical of the growing expectations to be more visibly relevant and to be more visibly efficient in their academic work. About half of all academics fear that such emphases are endangering the quality of academic work. Such a critique of the visible relevance of academic work, however, is less pronounced among academics at universities of applied sciences, as they have a mandate to emphasize the application of knowledge.

Most public debates on higher education in Germany suggest a degree of dissatisfaction among the academic profession. Some reforms have met with strong criticism. The student-teacher ratio grows. There are controversial debates regarding

resources for teaching and research. The employment situation for junior academics is often criticised as having de-motivating effects. However, this critique might more accurately reflect the concerned voice of associations representing the interests of junior staff, professors and universities, than the actual academics' views. As already pointed out, the overall professional satisfaction of academics in Germany has increased from the early 1990s to recent years.

At the time of the first survey discussed here, there was a widespread view that the academic profession considered itself to be 'a profession under pressure': an expectation existed to do more with less and academics were felt to be the 'losers' rather than the 'winners' from the growing role of higher education in society. Recent years have seen a tendency for growth in strong external expectations and managerial power, however, at the same time the opportunities and risks are becoming more diversified and more individualized. As this may be, these observations are also true for many European countries. Why academics' views and working practices remain so different in a substantial number of areas (despite international discourse on similar studies across countries) provides an interesting topic for future research.

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