



RESEARCH AND TRAINING NETWORK

Dr. Christine Roloff

Research assistant, Centre for Didactics in Universities, Dortmund University, Germany

Infrastructure and Framework Conditions for Careers in Higher Education in Germany¹

This contribution presents and discusses four aspects of infrastructure and framework conditions for careers in German higher education institutions:

1. It gives a few statistical data concerning the structure of the German higher education system.
2. It describes the characteristics of the career track to become a professor.
3. It gives a short insight in affirmative action and special programmes that exist to improve the basic conditions for women.
4. Finally it refers to current changes in the course of higher education reforms and discusses if they are apt to improve gender equality.

I. The Structure of the German Higher Education System

In Germany, there are about 340 higher education institutions, of which 20 % are run privately. There are around 1,800,000 students, that is 29 per cent of the young people between 19 and 26 of age.

One third of the higher education institutions are universities, including the teacher training and theological colleges. These are mostly integrated in the universities but there are still a few separate ones. More than half of the institutions are universities of applied science, which only 24 % of all students attend while three quarters of the students are studying at universities. Those are much larger with amounts of up to 30-40,000 students and more. Finally, about 14 % of the institutions are colleges of art with only 1.6 % of the students.

¹ Lecture held at the project conference in Warsaw, March 2001.

The growth of the German higher education system during the last 30 years has occurred not so much because of the increasing numbers of universities of applied science – they emerged only from the 1970ties on – but because of a considerable expansion of the old universities and the founding of new ones.

Regarding the gender structure, women make for nearly half of the students at universities and more than half at the colleges of art but only one third at the universities of applied science. Those very often teach technical subjects.

Higher Education in Germany (1997)

- **337 Higher Education Institutions**
 - 80 % state/public
 - 20 % non-state/private
- **1,833,000 students**
 - 56.5 % men
 - 43.5 % women
- **Universities (incl. teacher training and theological colleges):**
 - 33.5 % of institutions
 - 74.5 % of students
 - 53.7% men
 - 46.3% women
- **Universities for applied science (incl. for public administration):**
 - 52.8 % of institutions
 - 23.9 % of students
 - 65.9% men
 - 34.1% women
- **Colleges of art:**
 - 13.6 % of institutions
 - 1.6 % of students
 - 45.4% men
 - 54.6% women

(Data from: BMBF 1998)

Table 1

The higher education system is a federalist one. There is a general outline for legislation from the central government but the responsibility for university education – as well as for schooling – lies with the 16 federal states (Länder). They have their own education laws regulating university organisation and funding as well as educational programmes, the number of professors teaching a certain subject or the criteria for examinations a. s. o.

The structure of participation of women in higher education levels is probably well known. Table 2 is just to recapitulate that in Germany women

make more than half of all young people at the university entrance level and nearly half at the beginning of the studies but the attrition rates along the further academic career are very large. With each career step, there are less women left until they reach less than 6 % at the top position, the highest level of professorship (C4).

Gender Structure in Higher Education in Germany (1998)

Women in per cent of all
• 53.0 % university entrance qualification
• 48.5 % admitted, first year
• 44.5 % students
• 43.2 % graduated
• 33.1 % PhD
• 28.3 % assistant positions
• 15.3 % formal admission as an academic lecturer
• 9.5 % professors
• 5.9 % highest position as professors

(Data from: BLK 2000)

Table 2

The gendered distribution of disciplines is certainly also a well-known phenomenon. In fact, the figures differ according to different subjects. That is why in technically oriented universities of applied science the participation rates of women students are relatively small. However, "the higher the position, the more male" is valid in every subject. When there are 70 % female students in the humanities, they are nevertheless reduced to 10 % at the top while in engineering the figures are at 20 % at the entrance level and drop to 2 % at the top position. This systematic decrease will be discussed again in the context of the career characteristics.

In the leading positions, women (see Table 3) make for 4.6 % of the rectors and 11 % of the presidents. Also for the vice-rectors and vice presidents the figures show a slightly higher proportion with the latter. It is again due to the federalist system that there are different constitutional organisations of universities. The constitution with a rectorship is the traditional one. The rector is nearly always a professor from within the institution, a so-called *primus inter pares*. He or she is elected by colleagues – or more precisely by the academic senate – and after the end of the period of office, he or she continues to be an ordinary member of the faculty. A president on the other hand is a position to be achieved by application. There are more competitive obstacles to take and especially a range

of qualifications to present. It seems that women have more opportunities to gain this leading position when the conditions are handled in a formal way.

Leading Positions in Higher Education Institutions in Germany (1999)

Women in per cent of all	
<i>Position</i>	<i>women %</i>
Rector	4.6
President	11.0
Founding Rectors/Representative	14.3
Pro-Rector	8.8
Vice-President	10.3
Chancellor	14.3

(Data from: BLK 2000)

Table 3

It seems that women also have more chances in newly founded institutions. With 14.3 %, they are over-represented there. But as the absolute figures are very small – two make the 14.3 % – this is not a reliable datum.

In German universities the chancellor is the leader of administration and the representative for the budget. In some constitutions – especially those with a president – the chancellor is answerable to the president or rector. The figure of 14.3 % of women chancellors in 1999 has risen from 2.5 % in 1985.

II. Characteristics of the Career Tack

The German system of academic career track shows systemic weak points that work against the adequate participation of women.

A. Highly individualised promoting

It is a highly individualised system, especially when compared to the American system of formalised and documented career steps. Freedom of research and teaching, which is a highly valued "possession" of the German professor, is mostly misunderstood as an individual freedom instead of an institutional one.

Therefore, there is very little institutional guidance on the career track and no institutional responsibility at all for the new generation of academics.

B. No systematic documentation of the student's performance

There is a lack of documentation of the student's performance, which does not mean that there are no examinations. But very little substantial feedback according to the state of performance during the undergraduate years is given. Of course, students have to pass oral exams or write exam papers. They have normally an examination to conclude the basic courses and to be admitted to the advanced courses. Yet, in each exam they are assessed and graded by one individual professor or assistant only and thus, they never get a feedback on their overall performance or transcript documentation. There is no system of mentoring – as it is the case e.g. in American colleges (see Sebrechts 2000) – that could officially give them an encouragement by the faculty for further studies or help them decide early for an academic career.

C. Informal male mentor system

Certainly, they can get by chance an informal encouragement of an individual professor. This informal communication on performance, however, deepens the informal male mentor system, a connection between a male professor and male students on a somewhat emotional and unconscious level. There are no clearly defined merit based standards – apart from what is written in the course of study and exam regulations – and there is no formal communication between the board of subject teachers on the performance of their students.

Furthermore, students do not have to take the academic obstacles of a broad competitive nature. They never or only exceptionally have to present their essays or projects in a public outside the seminar group. So they do not learn to assess themselves against their fellow students or learn to cope with challenges such as presentation and rhetoric techniques. As especially women tend to estimate themselves low, they are not reinforced in their motivations for an academic perspective.

D. Tradition of assistantship

The most problematic part of the German system is that to start an academic career normally means to be asked to do so by a professor, to be his or her assistant for three to four years and to write a dissertation during that time. Of course,

there is also an applying system. In fact, all the posts have to be officially announced – at least in-house. Yet, very often this is only a matter of form and it is agreed upon beforehand who will get the job. The criteria for selection vary greatly because it depends on the professor to define the necessary qualifications for the post in his (or her) chair-group. This practice can eventually be in favour of women but more often it works in favour of men because in 90 % of the cases professors are men. By the way, there are recent findings about hiring and advancement in German research institutes. They make clear: the more formalised hiring procedures and personnel development practices the better the chances of advancement for women (Allmendinger 2000).

Thus, the individualised system works against women. On the extreme, one professor can "make or break an academic career" in Germany (same in Switzerland see Kavka / Wiedmer 2001).

E. Postdoctoral lecturing qualification as a surplus examination

The problem of dependency is even intensified at the next career step. In German-speaking universities, it is usual that there is an additional examination to be undergone proving one's special scientific and academic performance ("Habilitation") before becoming a professor. And here again – in order to achieve it the candidate will be an assistant of an individual professor for at least 6 years, on whom it depends if the assistant is allowed to do research and teaching of his or her own. At the end of this academic phase, they have to present elaborated research, a large written work and a presentation. The faculty as a whole will decide to give or refuse the *venia legendi*.

It is somewhat different to reach a professorship at a university of applied science. Instead of the postdoctoral lecturing qualification, it is necessary to have done some professional practice outside the university for at least three years.

F. No systematic instruction or evaluation of teaching qualities

While it is indispensable to do elaborated research and to publish when on the career track to professorship, the teaching qualities are neither furthered nor evaluated systematically. Quite often, women academics like to teach and in their early years, they invest a great amount of time in teaching without getting an official documentation of it, honoured or estimated (see Arnold / Bos 1996).

G. Limitation of academic jobs below professorship level

To sum up the points up to now: There is no clear promotional principle that would make an academic career predictable and systematic. Over and above that the academic posts - with the exception of tenured professorships - are normally temporary and restricted and for the postdoctoral lecturing qualification it is necessary to apply for a professorship in a different university and to be offered a chair. It is not possible – or only on exceptions – to get a chair in the faculty where the assistantship has been completed.

It may even happen that after having done the postdoctoral lecturing qualification exam the academic falls out of the system because he or she has reached age limits or is not offered a chair in due time. So it is quite risky to begin a career with such an open end. It seems that a woman shrinks from this laborious and extremely dependant track more often either because she knows beforehand that she will be delayed e.g. when having family restrictions or because she has no mentor who is influential enough to push her through in his/her faculty and scientific community.

H. Cooptation of new professors

It is part of the German individualistic system that a career very often depends on connections and mostly on old buddies-networks. In fact, there are rules and regulations as well as criteria for applying for and offering chairs but the whole system depends on cooptation. That means the professional colleagues in a faculty have the greatest influence on the new faculty members. They do not only negotiate the necessary qualifications, they also choose the candidates and decide whether they fit into the faculty or not or whether qualifications should be re-interpreted in order to make them suitable (e.g. Zimmermann 2000).

I. Cultural gender stereotypes

This system tends to reproduce the status quo in all respects including gender. Within this framework, male professors tend to further and select male students and applicants more effectively than female. Not only is the probability for female newcomers to become a professor statistically very low compared to the male counterparts, there are also still strong cultural stereotypes against the expectation towards a female professorship and academic career and only a very few encouraging female role models do exist. This altogether makes for an additional cooling out for women.

J. General lack of childcare

Last but not least, there is a general lack of childcare for students and academics. Western Germany has no tradition at all in daily childcare outside of the family that would be more than a few hours a day. And in Eastern Germany, the existing system has been dramatically reduced.

III. Affirmative Action and Special Programmes

Affirmative action and special programmes have emerged within the existing system for about 15 years to improve the situation of women and to give them better chances.

A. Law regulations and representatives for gender equality

Here again it is to refer to the federalist system of higher education in Germany. In fact, the framing law requires affirmative actions since 1985 and includes gender equality as an important goal for all institutions of higher education nationwide. Nevertheless, the 16 states and their higher education ministries organise gender equality measures quite differently and the universities themselves differ widely in equipping the gender equality representatives with paid free time, space, working materials, information technology and staff to support their work. Therefore, there is no exact account once and for all, but as an example the affirmative action principles in Northrhine-Westfalia are presented here (the state where the universities of Dortmund and Muenster are situated in).

B. Procedures of selection

Gender equality aspects are especially brought into the hiring procedures in order to influence the results. First, all positions have to be announced publicly when vacant. Second, in each board of selection at least one female academic must be a member entitled to vote. Third, the equal rights representative has to be informed completely and in time and she has access to the entire paperwork of the selection process and to all meetings of the selection board-taking place in its course. Fourth, she has the right to protest against decisions and to write a statement that will be part of the documents. In case of her protest, the ministry will ask for an additional external referee. The law requires the qualified preference of female competitors until their share on each level is 50 %.

In reality, this type of regulation does not produce guaranteed and predictable results. It is also a negotiating process in which the gender equality representative does not have a very strong position. There are no direct sanctions. There is some success but when there is a male favourite or a general aversion against a woman among the faculty, every effort seems to be in vain.

C. Development towards gender mainstreaming

That is why there is a development towards the gender-mainstreaming concept at present. Gender mainstreaming means taking gender equality into account in any aspect and every decision of academic life and university organisation so that equality will become pervasive. Gender mainstreaming is propagated by the European Union, and the German central government of social democrats and greens is in the course to adapt it. They introduced some elements but it is just a beginning. This development will be described later on in connection with the recent changes of the higher education system.

D. Special programmes

Since 1991 the central government and the states have created and launched special programmes to support universities and especially to further the new generation of academics. Within these programmes, they introduced regulations for women such as re-entering grants for women who stopped their career because of childcare. They were offered a supplement for childcare along with the grants. Post-doctoral jobs were given to bring women academics to a postdoctoral lecturing qualification and special lecturing grants were created. In Northrhine-Westfalia this programme is called Lise-Meitner-Programme (named after the nuclear scientist, one of the first women in physics at the beginning of the 20th century). It is quite successful with about 200 women who have been supported since 1991 and many of them offered a chair after achieving the post-doctoral lecturing qualification.

The current University and Science supporting Programme (HWP) contains gender-mainstreaming elements. So it states that 40 % of the jobs created with the programme's money must be given to women. Furthermore, the programme includes a special part and amount of money to support gender studies and gender equality measures.

E. Chairs in Gender Studies

An important aspect of gender equality is the rising number of chairs for gender studies. In Germany, women studies and gender studies began in the 70ties with autonomous and interdisciplinary groups of female scholars. Until now, the establishment of gender studies has succeeded differently again according to the federal states. In Northrhine-Westfalia, the ministry established the so-called *Network Women Studies* (Netzwerk Frauenforschung) with about 50 chairs in the state's 27 universities and universities of applied science. These chairs are integrated in many different disciplines and faculties. Nationwide, there exist 115 chairs for gender studies so far.

IV. Structural Change in Higher Education

Finally the last aspect of the infrastructure and framework conditions for academic careers: the current changes in the course of higher education reforms that gradually take place in German universities – do they and how do they affect gender equality or improve the chances and advancements of female academics?

Transition in the German higher education system has to do with the problems of growth during the last 30 years, with the cut back of finance and tight government budgets as well as with raised questions of quality with regard to international competition. The solution of these problems is seen in organisational changes. The governments release the bureaucratic budget model that has restricted the universities' autonomy until now and give the institutions more freedom in financial decisions. They are taught how to conduct a self-audit and quality assessment and they must give account for their performance. The governmental funding will gradually be given according to output criteria. On the long run, these new conditions make it necessary that the institutions establish a professional management in order to improve their achievement and succeed in competition.

When a system is in transition, this is quite a slow process and it depends on the agency of innovating people. That is why the universities correspond very differently to the new situation and here again the federal system plays an important part. The field where the reforms have made most progress until now is the financial (re-)allocation. In many states the universities get their money from the state according to an indicator system based on criteria as the numbers of students and exams, the amount of surplus money gained for research or also on agreement by objectives. Some universities have already created similar systems for the internal distribution of money to the faculties.

These changes are strongly dependent on the agency of involved people. Thus, it is necessary to get involved in the process. Although women academics are still a minority, they must be seen as agents in political and micro-political negotiations. In fact, the nationwide organisation – the lobby – of the gender equality representatives in the universities succeeded in implementing a new paragraph into the framework legislation three years ago. It requires that progress in gender equality must figure among the criteria according to which financial resources are being (re-) allocated. The higher education laws of the states that have been altered since then contain this requirement, too. And some go even further in requiring gender equality criteria in quality assessment or giving the gender equality representative the right to attend the meetings of the leading board, as it is the case in Northrhine-Westfalia.

But these changes happen very slowly and there are no general results by now. The financial distribution will affect gender equality in the long term. There are findings from a recent research that the gender equality representatives have gradually succeeded in implementing gender criteria in funding allocation systems (Roloff/Zimmermann 2000). The university with the longest tradition in these attempts – the Free University of Berlin – shows good results in giving a certain amount of money to the faculties – or taking it from them – according to their hiring of female professors or bringing female students and graduates to exams (Färber 2000).

Many universities started quality assessment and organisational development in their faculties to improve their achievement. In 1994, the University of Dortmund implemented a peer review system. During the evaluation process of teaching, research and organisation, systematic data on the situation of women must be produced and the faculties have to give account on their affirmative action measures and their progress of gender equality. Subsequent to this innovation and in connection with other New Public Management strategies in higher education the University of Dortmund has started a special gender equality and reform project in 1998². Its aim is to integrate gender equality in every reform step. That means: the new funding (re-)allocation system as well as the controlling and information system will contain gender indicators. Structural decisions and leading by objectives have to include the gender equality progress. The leading board supports the implementation of mentoring programmes or new study programmes or other reform elements when they include gender perspectives and gender studies.

² Change management project “Quality and Innovation – Gender-Equity as a Strategy of Reform” which is part of the programme of the Volkswagen Foundation (*VW-Stiftung*) called “Efficiency by means of Accountability” (*Leistungsfähigkeit durch Eigenverantwortung*).

This strategy at the University of Dortmund (as well as similar strategies of other individual institutions) corresponds to and interacts with the gender-mainstreaming concept. Gender Mainstreaming as a strategy of the European Union to qualify political decisions has been adapted by the German central government in 2000. The higher education laws integrate elements of gender mainstreaming when they require that gender equality must figure among the criteria for evaluation as well as for the (re-)allocation of financial resources.

Another field of reform currently forced are study programmes and exams. Universities begin to implement bachelor's and master's degrees and graduate schools. These attempts try to meet international standards and to reduce the duration of the course of studies, which in Germany is extremely long. Gender mainstreaming aspects could be considered in these reforms, too. A formal admission to a doctorate's degree by means of a graduate school may be in favour of women because it makes students independent of being mentored by an individual professor. Creating new study programmes could include modules of gender studies.

In order to improve the career track, there are attempts to alter the conditions by weakening the requirements for a postdoctoral lecturing qualification. The German Research Association (DFG) created a programme two years ago in order to open a new track to professorship. It is a five-year programme for young academics with a Ph.D. First they will have a research stay in a university abroad and afterwards they will be given the opportunity to establish a research group of their own in a German university. There they should be member of a faculty and fully integrated in the teaching programme. After the five years of programme, they should be prepared to be offered a chair as a professor³. Another attempt of the government to alter the career track is the newly created position of a Junior Professorship. It intends to give young academics more flexibility and responsibility in their research and teaching activities. As members of faculty they will be independent, they are not assistants of individual professors. In both cases it is still quite uncertain if the selection boards in the faculties will honour these special career steps, because among professors the abolition of the postdoctoral lecturing qualification is discussed very controversially. Both career modules are temporarily limited, that means there is no way to continue the career on these positions. The qualified academics have to be offered a chair after having completed the Emmy Noether Programme or the Junior Professorship.

³ The programme (for men and women) is called "Emmy Noether Programme" after the famous mathematician who got her postdoctoral lecturing qualification in 1918 at the University of Göttingen, two years before women were officially admitted to such an examination.

To conclude: The reported facts show the beginning of structural change. This is a very slow process which takes place in political negotiations and law amendment as well as in discussions and activities in every single university and their faculties. Referring to the academic career conditions, there is still a long way to go until German universities stop to neglect and begin to nurture their graduates – both females and males – and until they will install a human resource management and a personnel development system which will shift from the informal mentoring for males to a formal mentoring for all.

Bibliography:

BLK = Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung: Frauen in der Wissenschaft – Entwicklung und Perspektiven auf dem Weg zur Chancengleichheit, Materialien zur Bildungsplanung und zur Forschungsförderung, Heft 87, Bonn 2000

BMBF = Bundesministerium für Bildung, Wissenschaft, Forschung und Technologie: Grund und Strukturdaten 1998/1999, Bonn 1998

Arnold, Eva/Bos, Wolfgang: Geschlechtsspezifische hochschuldidaktische Orientierungen bei Assistentinnen und Assistenten. In: Das Hochschulwesen, Heft 3, 1996, p. 162-172

Färber, Christine: Frauenförderung an Hochschulen. Neue Steuerungsinstrumente zur Gleichstellung, Frankfurt/New York 2000

Kavka, Misha/Wiedmer, Caroline: Once a Bridesmaid, Never a Bride: Systemic Barriers to Women's Careers in Switzerland. In: Wiedmer, Caroline (ed.): Beating the System. A Comparative Study on Women's Strategies in Higher Education, universelle 4, Zurich 2001(in print)

Roloff, Christine/Zimmermann, Karin: Mittelverteilung, Informationsmanagement und networking. Aktionsfelder der Gleichstellungsbeauftragten im Reformprozess der Hochschulen. In: Löther, Andrea/Plöger, Lydia (Hg.): Mittelvergabe und Gleichstellungspolitik an Hochschulen, Bielefeld 2000, p. 43-58

Sebrechts, Jadwiga (ed.): Coming into Her Own, Bryn Mawr 2000

Zimmermann, Karin: Spiele mit der Macht in der Wissenschaft. Passfähigkeit und Geschlecht als Kriterien für Berufungen, Berlin 2000